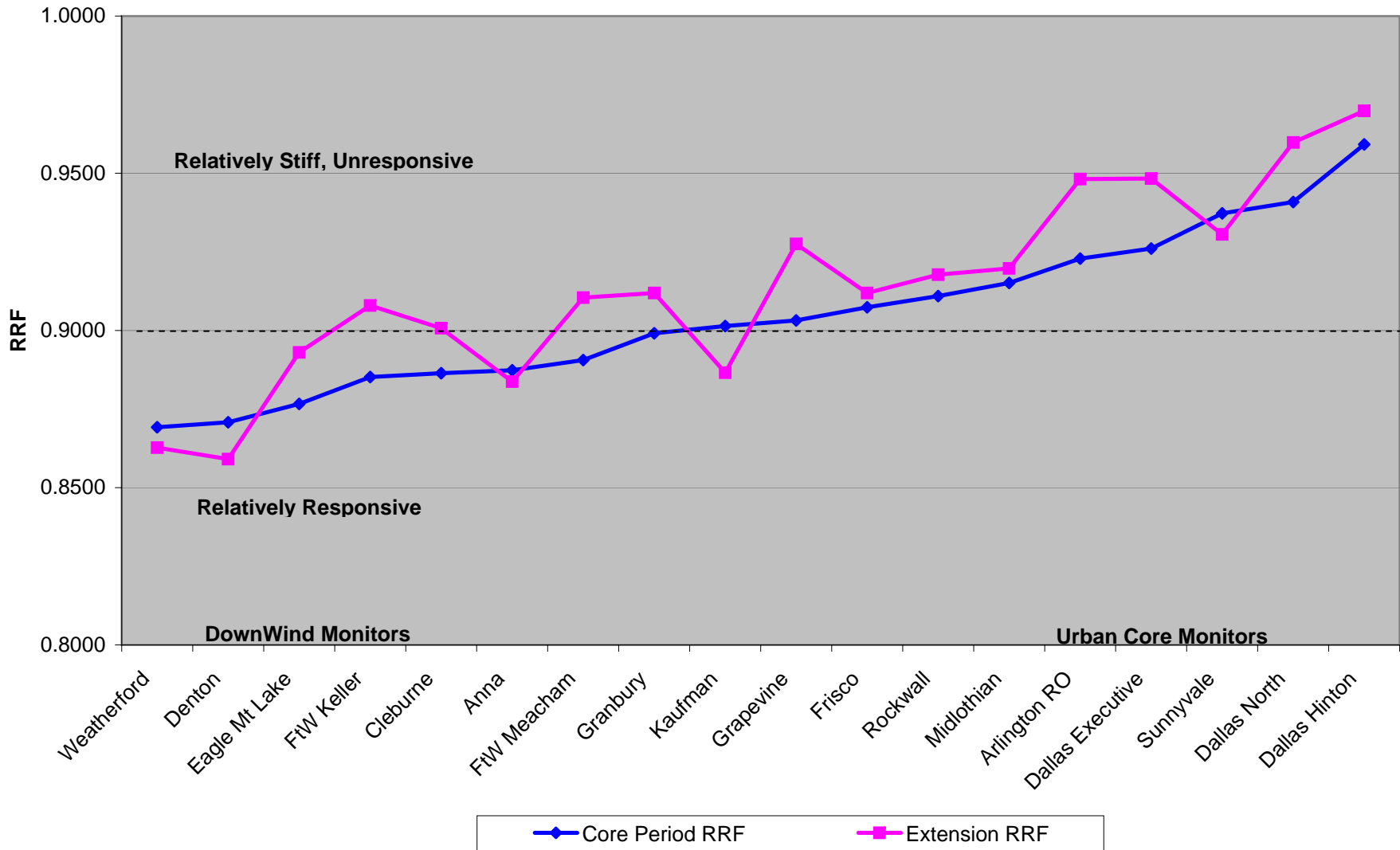
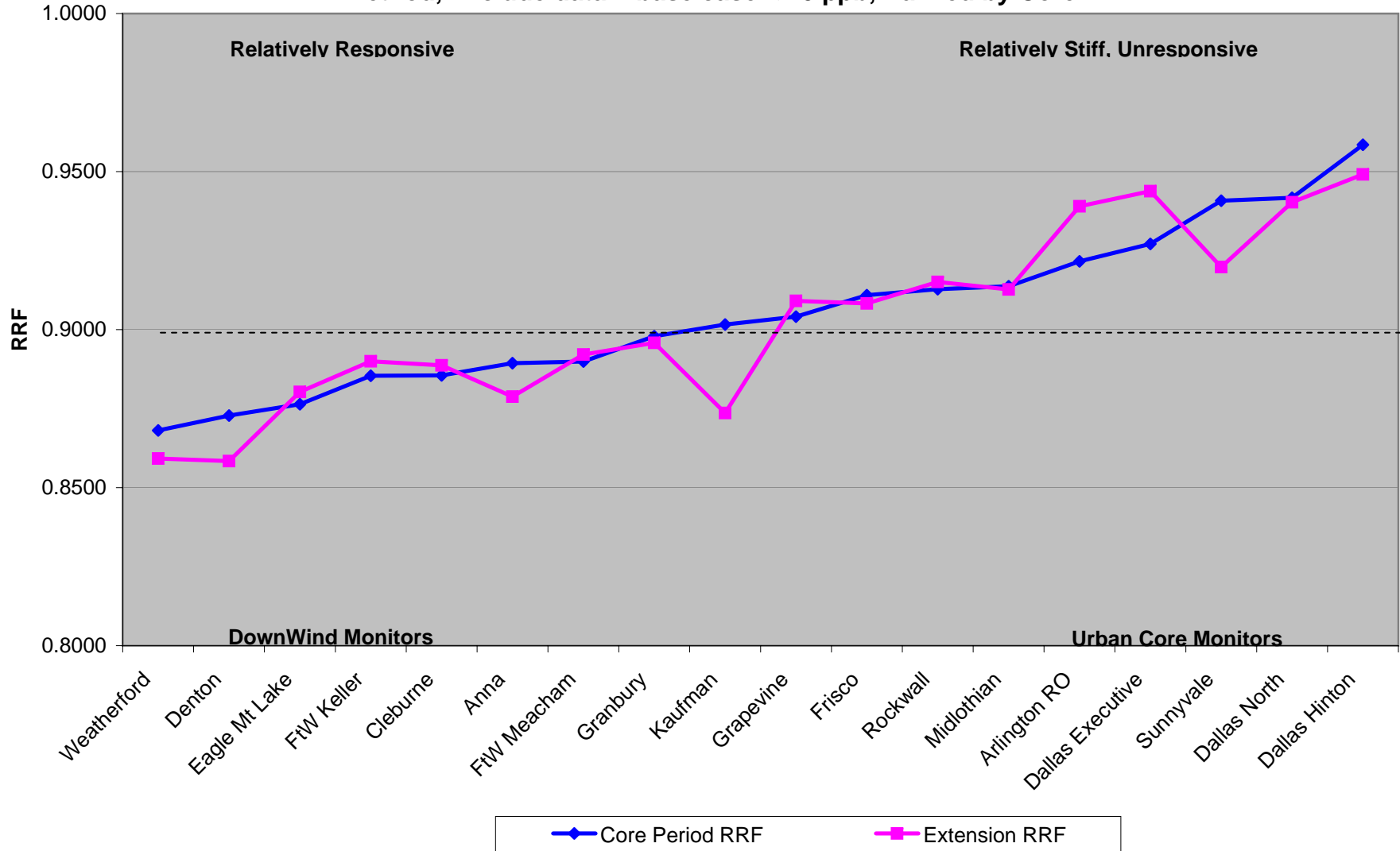


DFW Average Relative Reduction Factors by Monitor

All Data, No Exclusions, Ranked by Core RRF



Attachment F
DFW Average Relative Reduction Factors by Monitor
EPA Method, Exclude data if base case < 70 ppb, Ranked by Core RRF



DFW Core Episode (August 15-22, 1999)

Design Value Scaling

Base Case: run40

Site	CAMS	990815	990816	990817	990818	990819	990820	990821	990822	Avg	#Days>70
Frisco	C31	84.1	108.6	100.4	107.4	88.4	73.1	87.8	93	92.8	8
Anna	C68	71.5	81.4	90.4	109.4	94.9	75.1	78	78.9	85	8
Dallas Hinton	C60	85.9	97.1	99.3	103.2	100.4	77.2	88	86.6	92.2	8
Dallas North	C63	85.9	99.7	99.8	106.1	97.7	77.2	88	89.2	92.9	8
Dallas Executive	C402	81.5	92	96.5	95.6	107.3	86.1	82.1	82.8	90.5	8
Sunnyvale	C74	68.5	78.3	84.3	95.7	97.3	71.5	76.7	73.7	82.5	7
Denton	C56	105.9	113.1	110.5	113.8	87.2	76.4	105.9	102.9	102	8
Midlothian	C94	78.2	85.4	87	77.8	114.7	92.1	78.1	77.5	86.4	8
Granbury	C73	83.5	80	82.6	75.5	101.1	88.6	81.9	78.8	84	8
Cleburne	C77	77.2	81.6	84.4	71.7	106.2	97.4	80.6	83.3	85.3	8
Kaufman	C71	72.5	69.5	71.9	76.2	98	66.4	75.7	70.2	77.4	6
Weatherford	C76	100.1	80.6	92.2	78.1	84	74.8	96.7	81	85.9	8
Rockwall	C69	67.6	77.6	86	102.6	91.2	70.6	76.8	74.7	82.8	7
Arlington	C61	90.2	98.9	100.3	95.6	106.8	84.4	83.2	89.6	93.6	8
Eagle Mt Lake	C75	102.1	109.6	102.2	97.4	92.3	81.6	99.3	95.3	97.5	8
FtW Meacham	C13	98.5	106	103.2	105.5	97.1	81.6	93.5	95.2	97.6	8
FtW Keller	C17	103.8	111.4	110.3	109.1	94	80.2	97.6	100.6	100.9	8
Grapevine	C70	101.9	110.6	110.3	109.1	90.8	78.2	100.2	101.6	100.3	8

Future Year: run40.fy2010

Site	CAMS	990815	990816	990817	990818	990819	990820	990821	990822	Avg	EPA RRF
Frisco	C31	70	103.6	103	100.1	77.2	67.1	77.4	78.3	84.6	0.9109
Anna	C68	60.9	71.6	84.4	101.1	81.3	68.3	67.3	69.5	75.6	0.8894
Dallas Hinton	C60	75	95.4	103.5	100.4	91.3	83.5	81.2	77	88.4	0.9585
Dallas North	C63	72.8	98.6	103	102	86.8	80	80	77	87.5	0.9417
Dallas Executive	C402	68.6	86.7	93.3	87.9	97.5	89.8	73.9	73.4	83.9	0.9271
Sunnyvale	C74	62.5	74.9	82.4	90.7	88.9	67.2	69.8	69.3	77.6	0.9408
Denton	C56	88.6	105.2	108.8	93.6	73	65.6	91.1	86.1	89	0.8728
Midlothian	C94	70.4	78.7	81.1	72.6	98.8	90.2	70.4	69.1	78.9	0.9137
Granbury	C73	74.9	71.3	74.8	68.5	85.2	83.1	76.1	69.5	75.4	0.8979
Cleburne	C77	69.9	72.2	74.6	63.7	89.1	90.1	72.1	72.5	75.5	0.8855

Kaufman	C71	63.6	63.7	66.9	68	88.1	58.7	67.7	64.4	69.8	0.9016
Weatherford	C76	85.2	71.9	78.9	66.5	72.7	67.8	83.5	70.3	74.6	0.8681
Rockwall	C69	60.9	71.8	80.7	95.4	81.3	63.6	68.3	68.1	75.6	0.9128
Arlington RO	C61	74.2	92.7	94	86.3	96.2	89.8	75.8	81.3	86.3	0.9216
Eagle Mt Lake	C75	84.1	97.7	95.8	82.7	79.8	74.1	86.1	83.1	85.4	0.8764
FtW Meacham	C13	82.3	97.4	95.7	91.5	84.9	77.3	82.4	83.1	86.8	0.8899
FtW Keller	C17	87.6	100.1	105	93.9	80.5	72.2	89.5	85.8	89.3	0.8854
Grapevine	C70	86.5	104.5	108.8	99.2	77.7	73.5	89.5	86.1	90.7	0.9041

Daily RRF Calculations

Site	CAMS	990815	990816	990817	990818	990819	990820	990821	990822	Avg RRF	EPA RRF	Difference
Frisco	C31	0.8323	0.9540	1.0259	0.9320	0.8733	0.9179	0.8815	0.8419	0.9074	0.9109	-0.0035
Anna	C68	0.8517	0.8796	0.9336	0.9241	0.8567	0.9095	0.8628	0.8809	0.8874	0.8894	-0.0020
Dallas Hinton	C60	0.8731	0.9825	1.0423	0.9729	0.9094	1.0816	0.9227	0.8891	0.9592	0.9585	0.0007
Dallas North	C63	0.8475	0.9890	1.0321	0.9614	0.8884	1.0363	0.9091	0.8632	0.9409	0.9417	-0.0008
Dallas Executive	C402	0.8417	0.9424	0.9668	0.9195	0.9087	1.0430	0.9001	0.8865	0.9261	0.9271	-0.0010
Sunnyvale	C74	0.9124	0.9566	0.9775	0.9478	0.9137	0.9399	0.9100	0.9403	0.9373	0.9408	-0.0035
Denton	C56	0.8366	0.9302	0.9846	0.8225	0.8372	0.8586	0.8602	0.8367	0.8708	0.8728	-0.0020
Midlothian	C94	0.9003	0.9215	0.9322	0.9332	0.8614	0.9794	0.9014	0.8916	0.9151	0.9137	0.0014
Granbury	C73	0.8970	0.8913	0.9056	0.9073	0.8427	0.9379	0.9292	0.8820	0.8991	0.8979	0.0012
Cleburne	C77	0.9054	0.8848	0.8839	0.8884	0.8390	0.9251	0.8945	0.8703	0.8864	0.8855	0.0009
Kaufman	C71	0.8772	0.9165	0.9305	0.8924	0.8990	0.8840	0.8943	0.9174	0.9014	0.9016	-0.0002
Weatherford	C76	0.8511	0.8921	0.8557	0.8515	0.8655	0.9064	0.8635	0.8679	0.8692	0.8681	0.0011
Rockwall	C69	0.9009	0.9253	0.9384	0.9298	0.8914	0.9008	0.8893	0.9116	0.9110	0.9128	-0.0018
Arlington RO	C61	0.8226	0.9373	0.9372	0.9027	0.9007	1.0640	0.9111	0.9074	0.9229	0.9216	0.0013
Eagle Mt Lake	C75	0.8237	0.8914	0.9374	0.8491	0.8646	0.9081	0.8671	0.8720	0.8767	0.8764	0.0003
FtW Meacham	C13	0.8355	0.9189	0.9273	0.8673	0.8744	0.9473	0.8813	0.8729	0.8906	0.8899	0.0007
FtW Keller	C17	0.8439	0.8986	0.9519	0.8607	0.8564	0.9002	0.9170	0.8529	0.8852	0.8854	-0.0002
Grapevine	C70	0.8489	0.9448	0.9864	0.9093	0.8557	0.9399	0.8932	0.8474	0.9032	0.9041	-0.0009

DFW Extension (Aug 23-Sept 1, 1999)

Design Value Scaling

Base Case: run40

Site	CAMS	990823	990824	990825	990826	990827	990828	990829	990830	990831	990832	Avg	#Days>70
Frisco	C31	74.5	79.6	99.2	86.7	90.4	90.4	91.6	96.7	105.2	100.5	91.5	10
Anna	C68	64.6	82.9	73.2	88.2	81.4	82.7	70.7	82	92.5	82.4	81.8	9
Dallas Hinton	C60	52.2	94	101.1	80.3	79.6	84.3	96.8	100.1	96.6	91.5	91.6	9
Dallas North	C63	60.2	94	104.8	85.7	82.9	86.5	95.7	97.2	100	94.9	93.5	9
Dallas Executive	C402	56.8	92.4	94.6	77.6	78.9	79	92.3	100.1	92.5	87	88.3	9
Sunnyvale	C74	50.5	89.3	105.4	87.4	79.3	81.5	73.5	90.9	91.5	82	86.8	9
Denton	C56	83.7	85.8	89	76.9	87.9	93.3	103.9	117.2	110.5	108	95.6	10
Midlothian	C94	57.1	71.7	80.3	66.1	68.1	67.1	82.7	90.9	84.5	84.5	82.4	6
Granbury	C73	58.9	64	62.1	54.2	56.7	62.9	77	96.6	88.4	85.6	86.9	4
Cleburne	C77	57.6	65.9	66.9	57.8	59.3	62.5	83.5	95.1	90.5	86.4	88.9	4
Kaufman	C71	47.8	62.7	88.1	76.5	75	72.3	72	92.9	88.7	80.6	80.8	8
Weatherford	C76	68	81.9	65.9	64.4	65.4	61.5	82.6	119.8	92.6	88.3	93.1	5
Rockwall	C69	54	78.7	106.1	97.2	75.1	82.2	71.9	87	89.7	80.9	85.4	9
Arlington	C61	58.2	91.4	93.3	75.5	73.3	76.9	97.3	106.2	94.4	89.7	88.6	9
Eagle Mt Lake	C75	62.8	94.2	75.8	68.2	68.1	85.1	105.2	122.5	102.9	97.1	97.5	7
FtW Meacham	C13	59	92.6	88.6	74	77.1	86.2	105.2	117.1	101.2	95	93	9
FtW Keller	C17	66.1	90.6	92.4	76.6	80.9	86.2	106.2	117.8	108	99.7	95.4	9
Grapevine	C70	68.8	90.6	93.5	82.4	89.9	90.7	106.2	112.9	109.5	102	97.5	9

Future Year: run40.fy2010

Site	CAMS	990823	990824	990825	990826	990827	990828	990829	990830	990831	990832	Avg	EPA RRF
Frisco	C31	73.4	78.2	87.6	81.9	83.4	81.6	78	86.7	93.6	86.5	83.1	0.9083
Anna	C68	59.1	72.6	64.9	75.1	76.3	70.9	63.9	72.7	78.4	72.2	71.9	0.8788
Dallas Hinton	C60	59.5	102.2	95.6	79.1	80.5	78.2	83.3	92.8	89.2	81.5	86.9	0.9491
Dallas North	C63	67.5	102.2	97.2	82.5	83.2	79.3	81.7	91.2	90.7	83.5	87.9	0.9403
Dallas Executive	C402	55.7	101.8	86.9	74.6	77.9	74.9	78.6	92.8	84.2	78	83.3	0.9438
Sunnyvale	C74	52	80.1	100.8	84.1	78.1	71.3	67.2	81.4	81.5	73.8	79.8	0.9198
Denton	C56	81.1	71.1	74.4	64.4	75.1	79	87.2	99.2	98.5	90.9	82.1	0.8584
Midlothian	C94	55.5	69.7	71.8	60.2	62.1	61.7	75.5	81.2	77.8	75.2	75.2	0.9127
Granbury	C73	55.2	59.8	55.7	49.2	52.2	58.9	69.5	86.7	79.8	75.6	77.9	0.8958
Cleburne	C77	52.6	60.2	58	52.7	53.7	58.9	74.5	85	80.3	76.1	79	0.8887

Kaufman	C71	44.9	58.4	77.2	70	68	59.4	63.9	80.1	74.4	71.5	70.6	0.8736
Weatherford	C76	65.4	70.7	53.7	54.5	54.7	53.4	70.6	101.8	80.7	76	80	0.8592
Rockwall	C69	50.6	70.7	100.8	88.8	78.1	69.8	66.2	77.2	79.4	72.5	78.2	0.9151
Arlington	C61	58.9	101.8	81.4	69.8	73.1	72.6	84.2	97.1	87.8	81.4	83.2	0.9390
Eagle Mt Lake	C75	66.7	89.6	64.3	57.6	59.1	72.6	90	106.6	92.5	85.3	85.9	0.8803
FtW Meacham	C13	64.2	91.2	76.7	63.8	68.9	73.1	90	106.2	92	84.6	83	0.8921
FtW Keller	C17	70.8	93.6	79.8	66.2	71	73.1	90	105.9	97.6	86.9	84.9	0.8900
Grapevine	C70	73.9	100	82.2	72.3	82.9	82.6	89	101.7	98.5	88.7	88.7	0.9091

Daily RRF Calculations

Site	CAMS	990823	990824	990825	990826	990827	990828	990829	990830	990831	990832	Avg RRF	EPA RRF	Difference
Frisco	C31	0.9852	0.9824	0.8831	0.9446	0.9226	0.9027	0.8515	0.8966	0.8897	0.8607	0.9119	0.9083	0.0036
Anna	C68	0.9149	0.8758	0.8866	0.8515	0.9373	0.8573	0.9038	0.8866	0.8476	0.8762	0.8838	0.8788	0.0050
Dallas Hinton	C60	1.1398	1.0872	0.9456	0.9851	1.0113	0.9276	0.8605	0.9271	0.9234	0.8907	0.9698	0.9491	0.0207
Dallas North	C63	1.1213	1.0872	0.9275	0.9627	1.0036	0.9168	0.8537	0.9383	0.9070	0.8799	0.9598	0.9403	0.0195
Dallas Executive	C402	0.9806	1.1017	0.9186	0.9613	0.9873	0.9481	0.8516	0.9271	0.9103	0.8966	0.9483	0.9438	0.0045
Sunnyvale	C74	1.0297	0.8970	0.9564	0.9622	0.9849	0.8748	0.9143	0.8955	0.8907	0.9000	0.9305	0.9198	0.0107
Denton	C56	0.9689	0.8287	0.8360	0.8375	0.8544	0.8467	0.8393	0.8464	0.8914	0.8417	0.8591	0.8584	0.0007
Midlothian	C94	0.9720	0.9721	0.8941	0.9107	0.9119	0.9195	0.9129	0.8933	0.9207	0.8899	0.9197	0.9127	0.0070
Granbury	C73	0.9372	0.9344	0.8969	0.9077	0.9206	0.9364	0.9026	0.8975	0.9027	0.8832	0.9119	0.8958	0.0161
Cleburne	C77	0.9132	0.9135	0.8670	0.9118	0.9056	0.9424	0.8922	0.8938	0.8873	0.8808	0.9007	0.8887	0.0120
Kaufman	C71	0.9393	0.9314	0.8763	0.9150	0.9067	0.8216	0.8875	0.8622	0.8388	0.8871	0.8866	0.8736	0.0130
Weatherford	C76	0.9618	0.8632	0.8149	0.8463	0.8364	0.8683	0.8547	0.8497	0.8715	0.8607	0.8628	0.8592	0.0036
Rockwall	C69	0.9370	0.8983	0.9500	0.9136	1.0399	0.8491	0.9207	0.8874	0.8852	0.8962	0.9178	0.9151	0.0027
Arlington	C61	1.0120	1.1138	0.8725	0.9245	0.9973	0.9441	0.8654	0.9143	0.9301	0.9075	0.9481	0.9390	0.0091
Eagle Mt Lake	C75	1.0621	0.9512	0.8483	0.8446	0.8678	0.8531	0.8555	0.8702	0.8989	0.8785	0.8930	0.8803	0.0127
FtW Meacham	C13	1.0881	0.9849	0.8657	0.8622	0.8936	0.8480	0.8555	0.9069	0.9091	0.8905	0.9105	0.8921	0.0184
FtW Keller	C17	1.0711	1.0331	0.8636	0.8642	0.8776	0.8480	0.8475	0.8990	0.9037	0.8716	0.9079	0.8900	0.0179
Grapevine	C70	1.0741	1.1038	0.8791	0.8774	0.9221	0.9107	0.8380	0.9008	0.8995	0.8696	0.9275	0.9091	0.0184

Site Specific Relative Reduction Factors

Site	EPA Method (O3>70)		Daily RRF, No Exclusions	
	Core Period	Extension R	Core Period	Extension RRF
Weatherford	0.8681	0.8592	0.8692	0.8628
Denton	0.8728	0.8584	0.8708	0.8591
Eagle Mt Lake	0.8764	0.8803	0.8767	0.8930
FtW Keller	0.8854	0.8900	0.8852	0.9079
Cleburne	0.8855	0.8887	0.8864	0.9007
Anna	0.8894	0.8788	0.8874	0.8838
FtW Meacham	0.8899	0.8921	0.8906	0.9105
Granbury	0.8979	0.8958	0.8991	0.9119
Kaufman	0.9016	0.8736	0.9014	0.8866
Grapevine	0.9041	0.9091	0.9032	0.9275
Frisco	0.9109	0.9083	0.9074	0.9119
Rockwall	0.9128	0.9151	0.9110	0.9178
Midlothian	0.9137	0.9127	0.9151	0.9197
Arlington RO	0.9216	0.9390	0.9229	0.9481
Dallas Executive	0.9271	0.9438	0.9261	0.9483
Sunnyvale	0.9408	0.9198	0.9373	0.9305
Dallas North	0.9417	0.9403	0.9409	0.9598
Dallas Hinton	0.9585	0.9491	0.9592	0.9698

Data ranked by Core RRF