Test Monitoring Center
6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

MEMORANDUM: 07-084

DATE: November 27, 2007

TO: Becky Grinfield,
Chairman, Engine Oil Elastomer Compatibility Surveillance Panel

FROM: Scott Parke

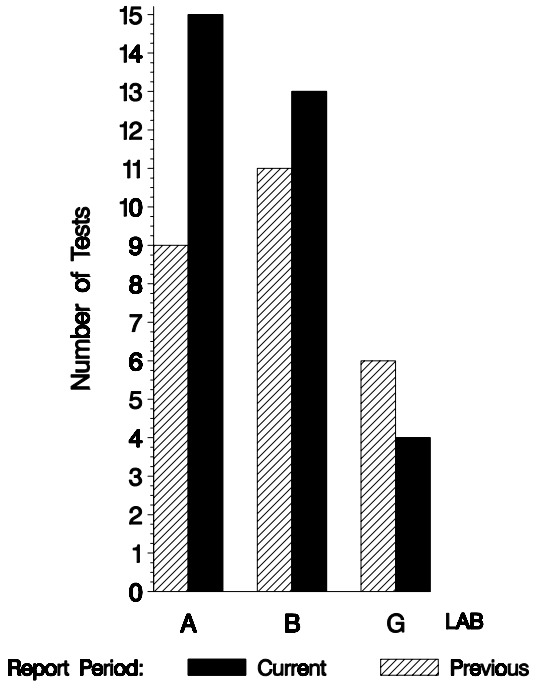
SUBJECT: EOEC Testing from April 1, 2007 through September 30, 2007

A total of 146 EOEC tests were reported to the Test Monitoring Center during the period from April 1, 2007 through September 30, 2007. The data from these tests is shown beginning on page 8. Following is a summary of testing activity this period.

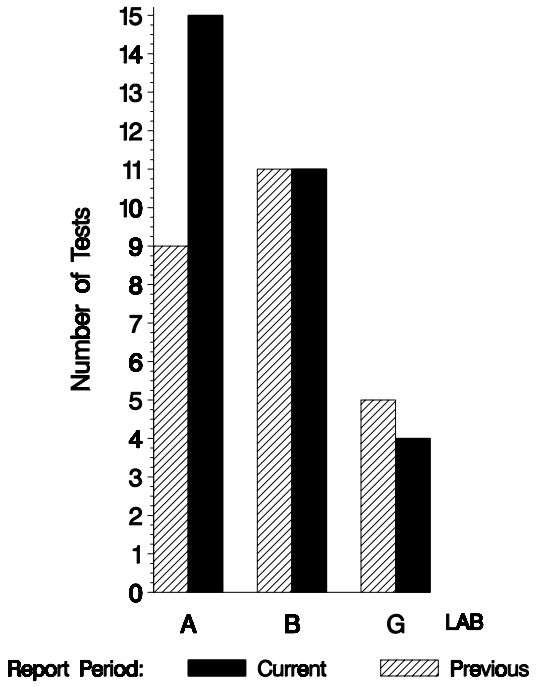
	Reporting Data
Number of Labs	3

Tests reported this period were distributed as shown below:

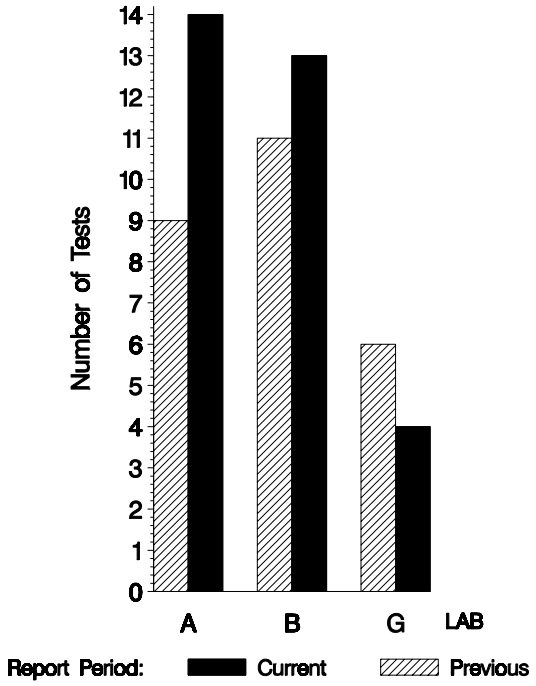
NUMBER OF FLUOROELASTOMER TESTS
REPORTED BY LAB AND REPORT PERIOD



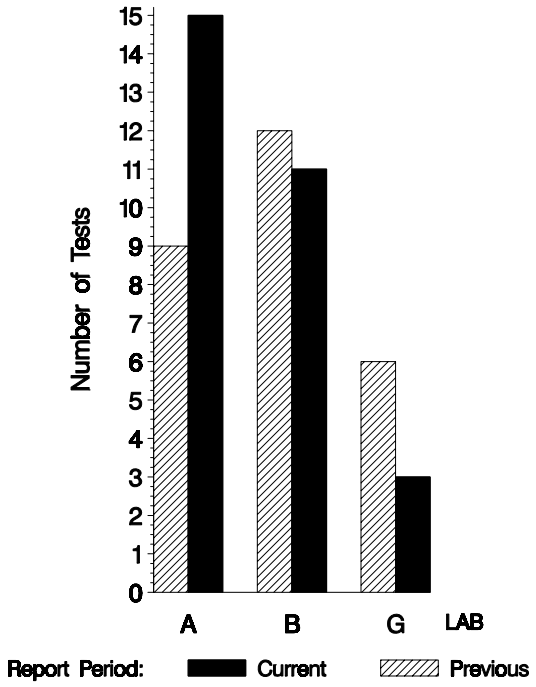
NUMBER OF NITRILE TESTS
REPORTED BY LAB AND REPORT PERIOD



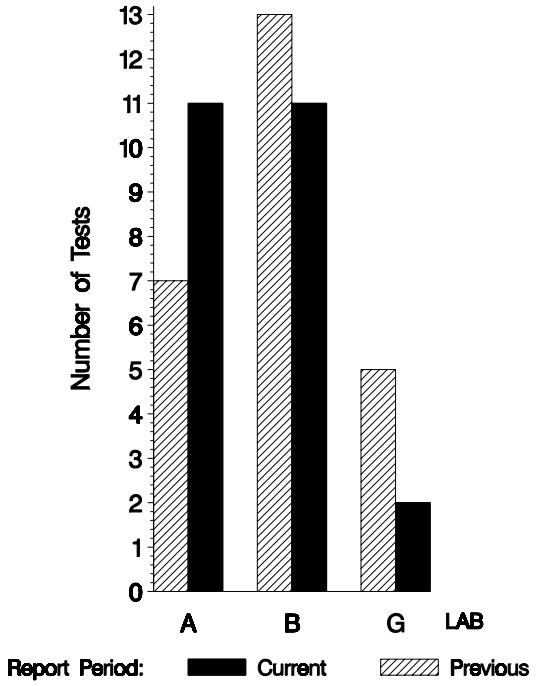
NUMBER OF POLYACRYLATE TESTS
REPORTED BY LAB AND REPORT PERIOD



NUMBER OF SILICONE TESTS
REPORTED BY LAB AND REPORT PERIOD

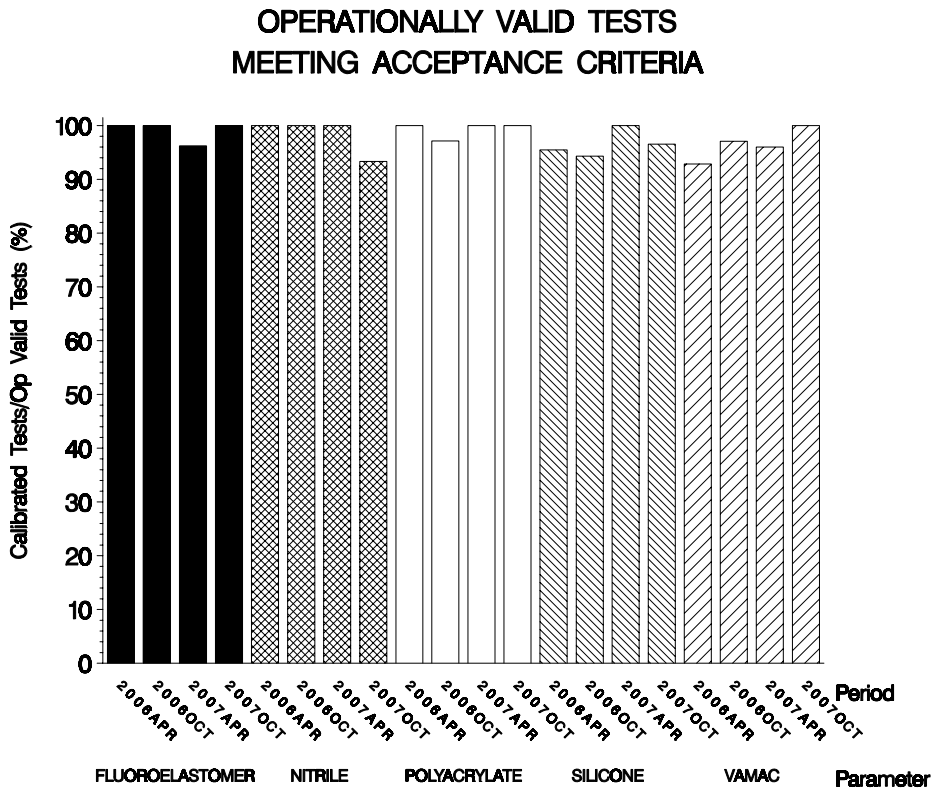


NUMBER OF VAMAC TESTS
REPORTED BY LAB AND REPORT PERIOD



Test Distribution by Oil and Validity

		Fluoroelastomer	Nitrile	Polyacrylate	Silicone	VAMAC	Totals Last Period	Totals This Period
Accepted for Calibration	AC	32	28	31	28	24	125	143
Rejected Mild	OC	0	2	0	0	0	1	2
Rejected Severe	OC	0	0	0	1	0	1	1
Information Run (not for calibration)	NI	0	0	0	0	0	1	0
Operationally Invalid (lab)	LC	0	0	0	0	0	0	0
Operationally Invalid (lab/TMC)	RC	0	0	0	0	0	0	0
Aborted Calibration	XC	0	0	0	0	0	0	0
Total		32	30	31	29	24	128	146



The above chart shows the percentage of accepted operationally valid tests. This period two nitrile and one silicone test failed to meet the acceptance criteria.

Lost Tests per Start by Lab and Elastomer Type

	Fluoroelastomer			**Nitrile**			**Polyacrylate**			**Silicone**			**VAMAC**			Total		
Lab	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%	Lost	Starts	%
A	0	15	0	0	15	0	0	14	0	0	15	0	0	11	0	0	70	0
B	0	13	0	0	11	0	0	13	0	0	11	0	0	11	0	0	59	0
G	0	4	0	0	4	0	0	4	0	0	3	0	0	2	0	0	17	0
Total	0	32	0	0	30	0	0	31	0	0	29	0	0	24	0	0	146	0

Lost tests are those that were either aborted, rejected by lab, or operationally invalid.

Causes for Lost Tests

Lab	Cause		Elastomer: Fluoroelastomer	Nitrile	Polyacrylate	Silicone	VAMAC	Validity: LC	RC	XC	Loss Rate: Lost	Starts	%
	No tests were lost this period.										0	146	0%
		Lost	0	0	0	0	0	0	0	0			
		Starts	32	30	31	29	24	146	146	146			
		%	0%	0%	0%	0%	0%	0%	0%	0%			

Average Δ/s by Lab						
Elastomer	Lab	n	VOLCYI	HARDYI	TENSYI	ELONYI
Fluoroelastomer						
	A	15	-0.608	0.106	-0.459	-0.937
	B	13	-0.078	0.178	-0.055	-0.879
	G	4	1.047	-1.045	0.473	1.222
	IN	32	-0.186	-0.009	-0.178	-0.643
Nitrile						
	A	15	0.721	0.714	-2.029	-0.943
	B	11	1.557	1.470	-1.578	-0.732
	G	4	1.443	0.045	-0.621	-1.003
	IN	30	1.124	0.902	-1.676	-0.874
Polyacrylate						
	A	14	0.616	0.363	-0.380	-0.072
	B	13	1.123	0.112	0.108	0.271
	G	4	0.635	0.561	0.424	-0.331
	IN	31	0.831	0.283	-0.072	0.039
Silicone						
	A	15	0.128	-0.604	-0.392	1.008
	B	11	1.218	-0.415	-0.639	0.492
	G	3	0.686	1.201	-0.788	-0.482
	IN	29	0.599	-0.346	-0.527	0.658
VAMAC						
	A	11	0.854	-1.341	1.746	0.575
	B	11	1.042	-1.245	1.978	-0.067
	G	2	1.579	-1.484	-0.178	0.698
	IN	24	1.000	-1.309	1.692	0.291

DATA FROM ALL OPERATIONALLY VALID TESTS REPORTED THIS PERIOD:

FLUOROELASTOMER

LTMS DATE	LAB	VOLC	HARD	TENS	ELON	VOLCYI	HARDYI	TENSYI	ELONYI
20070411	A	0.34	10	-72.5	-69.8	-1.824	1.227	-0.602	-1.236
20070413	B	0.51	6	-69.2	-63.1	-0.676	-0.591	0.015	-0.491
20070430	A	0.29	8	-73.7	-64.6	-2.162	0.318	-0.826	-0.657
20070501	A	0.39	8	-72.4	-66.1	-1.486	0.318	-0.583	-0.824
20070508	B	0.38	8	-67.3	-60.8	-1.554	0.318	0.370	-0.235
20070516	A	0.73	8	-71.4	-66.0	0.811	0.318	-0.396	-0.813
20070521	G	0.77	4	-64.2	-47.8	1.081	-1.500	0.950	1.211
20070523	A	0.54	8	-70.9	-70.6	-0.473	0.318	-0.303	-1.325
20070525	B	0.60	7	-69.6	-63.2	-0.068	-0.136	-0.060	-0.502
20070530	A	0.56	7	-72.0	-64.7	-0.338	-0.136	-0.508	-0.669
20070605	G	0.80	4	-69.0	-46.8	1.284	-1.500	0.052	1.323
20070612	B	0.60	7	-69.3	-62.0	-0.068	-0.136	-0.004	-0.368
20070614	A	0.54	8	-74.0	-70.9	-0.473	0.318	-0.882	-1.358
20070627	B	0.64	8	-69.9	-68.0	0.203	0.318	-0.116	-1.036
20070627	A	0.46	7	-69.0	-63.4	-1.014	-0.136	0.052	-0.524
20070628	G	0.60	6	-71.8	-49.4	-0.068	-0.591	-0.471	1.033
20070704	A	0.64	7	-72.2	-69.1	0.203	-0.136	-0.546	-1.158
20070709	B	0.77	7	-70.6	-68.3	1.081	-0.136	-0.247	-1.069
20070713	B	0.59	7	-71.6	-69.1	-0.135	-0.136	-0.434	-1.158
20070713	G	0.89	6	-62.0	-46.8	1.892	-0.591	1.361	1.323
20070725	A	0.53	7	-68.7	-67.6	-0.541	-0.136	0.108	-0.991
20070803	B	0.66	8	-69.8	-66.6	0.338	0.318	-0.097	-0.880
20070808	A	0.78	5	-64.4	-58.3	1.149	-1.045	0.912	0.043
20070809	B	0.81	8	-70.1	-67.6	1.351	0.318	-0.153	-0.991
20070815	B	0.53	9	-66.7	-78.0	-0.541	0.773	0.482	-2.148
20070815	A	0.48	7	-73.0	-68.4	-0.878	-0.136	-0.695	-1.080
20070827	B	0.55	9	-70.4	-69.0	-0.405	0.773	-0.209	-1.147
20070830	A	0.41	8	-71.8	-67.8	-1.351	0.318	-0.471	-1.013
20070913	A	0.64	8	-74.0	-69.1	0.203	0.318	-0.882	-1.158
20070920	B	0.55	7	-67.5	-59.7	-0.405	-0.136	0.333	-0.112
20070925	A	0.47	7	-76.0	-70.3	-0.946	-0.136	-1.256	-1.291
20070928	B	0.59	9	-72.5	-70.3	-0.135	0.773	-0.602	-1.291

NITRILE

LTMS DATE	LAB	VOLC	HARD	TENS	ELON	VOLCYI	HARDYI	TENSYI	ELONYI
20070402	G	1.77	0	-34.5	-56.6	1.250	-0.944	-0.959	-0.854
20070409	A	0.61	4	-33.6	-53.6	-0.131	1.316	-0.836	-0.408
20070419	B	1.52	4	-31.6	-52.3	0.952	1.316	-0.563	-0.214
20070501	A	0.64	4	-42.9	-59.2	-0.095	1.316	-2.105	-1.241
20070510	B	1.35	4	-36.4	-57.0	0.750	1.316	-1.218	-0.914
20070514	A	0.44	4	-31.0	-45.1	-0.333	1.316	-0.482	0.857
20070521	A	0.35	2	-34.7	-40.7	-0.440	0.186	-0.986	1.512
20070528	A	1.07	3	-41.5	-58.0	0.417	0.751	-1.914	-1.063
20070601	B	1.17	4	-38.6	-54.8	0.536	1.316	-1.518	-0.586
20070605	G	1.36	2	-29.0	-56.5	0.762	0.186	-0.209	-0.839
20070612	A	1.03	5	-42.8	-57.6	0.369	1.881	-2.091	-1.003
20070618	B	2.30	5	-39.7	-55.9	1.881	1.881	-1.668	-0.750
20070625	A	1.02	2	-45.3	-61.9	0.357	0.186	-2.432	-1.643
20070628	G	2.22	3	-32.8	-58.5	1.786	0.751	-0.727	-1.137
20070702	B	2.28	4	-36.2	-54.0	1.857	1.316	-1.191	-0.467
20070702	A	2.01	1	-42.6	-55.0	1.536	-0.379	-2.064	-0.616
20070706	B	2.08	4	-40.2	-57.2	1.619	1.316	-1.737	-0.943
20070713	G	2.38	2	-31.8	-58.8	1.976	0.186	-0.591	-1.182
20070717	B	2.22	4	-41.7	-57.7	1.786	1.316	-1.941	-1.018
20070723	A	1.96	3	-50.6	-66.3	1.476	0.751	-3.156	-2.298
20070801	B	2.27	5	-43.2	-59.1	1.845	1.881	-2.146	-1.226
20070806	A	0.74	3	-42.9	-58.3	0.024	0.751	-2.105	-1.107
20070810	B	2.23	4	-38.2	-55.6	1.798	1.316	-1.464	-0.705
20070813	A	1.79	2	-44.8	-59.2	1.274	0.186	-2.364	-1.241
20070822	A	1.87	2	-42.4	-60.3	1.369	0.186	-2.037	-1.405
20070828	B	2.49	5	-40.3	-56.3	2.107	1.881	-1.750	-0.810
20070828	A	2.19	3	-49.2	-63.2	1.750	0.751	-2.965	-1.836
20070911	A	2.16	3	-51.7	-63.0	1.714	0.751	-3.306	-1.807
20070920	B	2.40	4	-43.3	-53.7	2.000	1.316	-2.160	-0.423
20070921	A	2.00	3	-39.1	-56.6	1.524	0.751	-1.587	-0.854

POLYACRYLATE

LTMS DATE	LAB	VOLC	HARD	TENS	ELON	VOLCYI	HARDYI	TENSYI	ELONYI
20070410	A	0.81	0	-3.4	-24.4	-0.039	0.839	-0.527	-0.708
20070416	B	1.35	-1	-7.4	-21.8	0.671	0.283	-1.020	-0.419
20070501	A	0.79	-1	0.4	-16.4	-0.066	0.283	-0.055	0.187
20070509	B	1.08	-1	-3.2	-17.0	0.316	0.283	-0.498	0.122
20070515	A	1.07	0	1.8	-9.3	0.303	0.839	0.119	0.981
20070522	A	1.02	0	-10.0	6.8	0.237	0.839	-1.348	2.782
20070529	B	1.40	-2	7.0	-16.2	0.737	-0.272	0.771	0.213
20070529	A	0.77	1	0.3	-28.9	-0.092	1.394	-0.067	-1.211
20070605	G	1.59	0	-3.2	-29.8	0.987	0.839	-0.502	-1.312
20070613	A	1.28	2	4.2	-31.6	0.579	1.950	0.418	-1.513
20070615	B	1.28	0	-2.7	-16.7	0.579	0.839	-0.438	0.157
20070626	A	1.19	-1	0.3	-20.3	0.461	0.283	-0.067	-0.249
20070628	G	0.03	2	3.7	-17.1	-1.066	1.950	0.356	0.109
20070628	B	1.88	0	5.7	-13.2	1.368	0.839	0.604	0.550
20070703	A	1.57	-2	-3.4	-21.6	0.961	-0.272	-0.527	-0.395
20070710	B	1.66	-3	4.0	-14.0	1.079	-0.828	0.387	0.454
20070713	G	1.50	-1	12.6	-28.6	0.868	0.283	1.463	-1.178
20070716	B	1.94	-2	5.2	-6.7	1.447	-0.272	0.537	1.268
20070724	A	1.16	-1	-1.7	-26.6	0.421	0.283	-0.316	-0.954
20070731	B	1.96	-1	-1.5	-21.0	1.474	0.283	-0.291	-0.329
20070802	G	2.17	-3	3.9	-8.6	1.750	-0.828	0.381	1.059
20070807	A	1.51	-3	3.4	-29.5	0.882	-0.828	0.318	-1.279
20070808	B	1.88	-1	8.5	-16.2	1.368	0.283	0.949	0.207
20070814	A	1.62	-2	-6.6	-8.7	1.026	-0.272	-0.925	1.048
20070824	B	2.07	-2	5.2	-10.9	1.618	-0.272	0.542	0.806
20070829	A	1.95	-2	-0.7	-15.3	1.461	-0.272	-0.192	0.310
20070905	B	1.65	0	-3.7	-18.9	1.066	0.839	-0.565	-0.094
20070912	A	1.76	-2	-8.5	-14.5	1.211	-0.272	-1.162	0.399
20070921	B	2.10	-2	0.2	-13.9	1.658	-0.272	-0.080	0.470
20070924	A	1.81	-1	-7.1	-21.7	1.276	0.283	-0.988	-0.406
20070928	B	1.77	-2	4.9	-17.0	1.224	-0.272	0.501	0.120

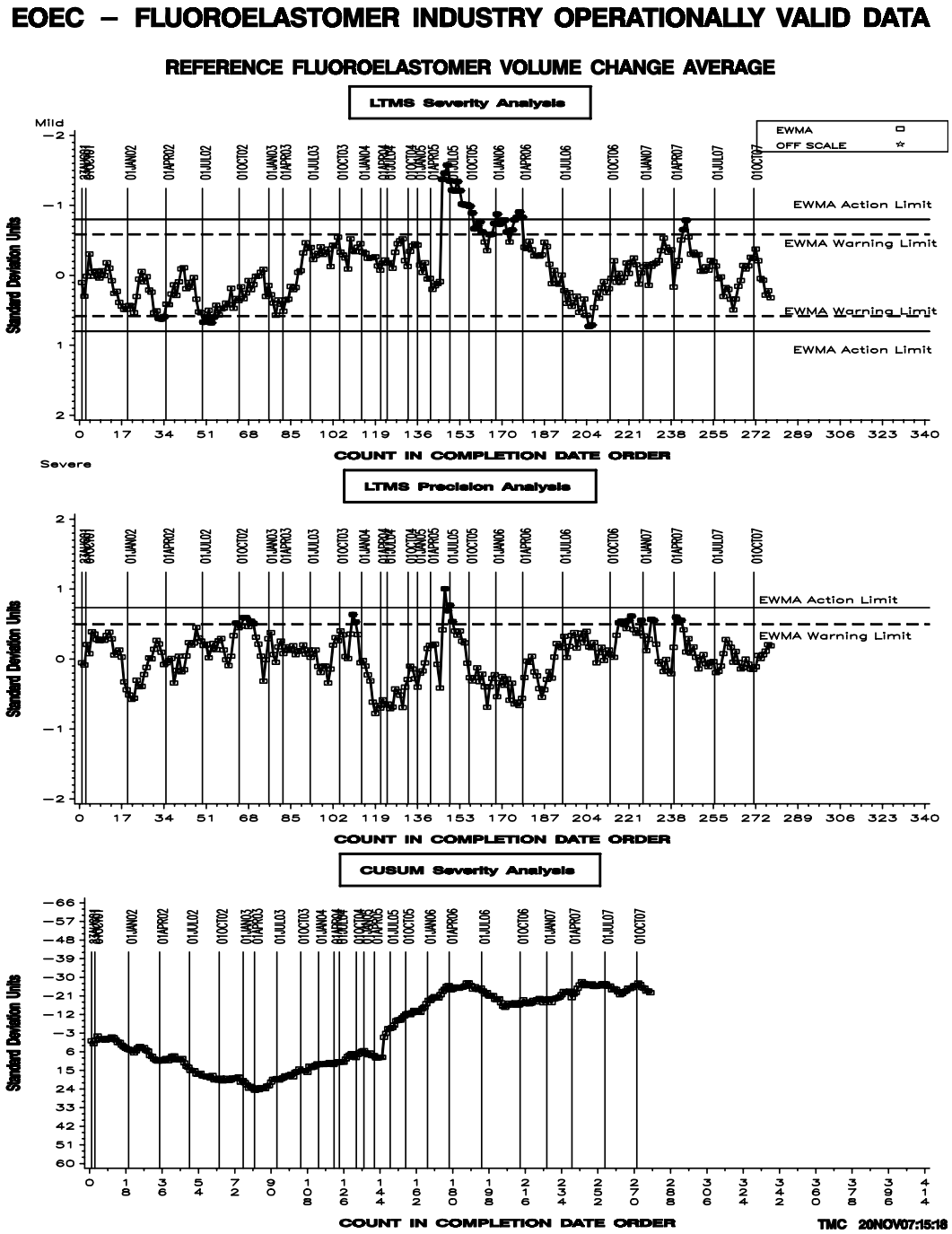
SILICONE

LTMS DATE	LAB	VOLC	HARD	TENS	ELON	VOLCYI	HARDYI	TENSYI	ELONYI
20070412	A	25.82	-20	-17.2	-17.5	-0.247	-0.604	-0.843	0.827
20070417	B	28.79	-20	-20.9	-23.1	1.062	-0.604	-1.710	0.022
20070501	A	26.89	-20	-21.2	-20.1	0.225	-0.604	-1.780	0.453
20070511	B	28.43	-19	-13.1	-18.6	0.903	-0.187	0.117	0.669
20070517	A	25.64	-20	-13.4	-0.4	-0.326	-0.604	0.047	3.288
20070524	A	26.69	-20	-15.0	-11.5	0.137	-0.604	-0.328	1.691
20070531	A	26.28	-20	-13.1	-21.3	-0.044	-0.604	0.117	0.281
20070605	G	28.42	-16	-15.1	-29.2	0.899	1.063	-0.351	-0.856
20070605	B	29.87	-20	-14.6	-17.4	1.537	-0.604	-0.234	0.842
20070615	A	26.97	-19	-17.6	-29.0	0.260	-0.187	-0.937	-0.827
20070618	A	27.60	-21	-15.6	-16.8	0.537	-1.021	-0.468	0.928
20070619	B	28.68	-20	-13.5	-16.9	1.013	-0.604	0.023	0.914
20070628	G	26.88	-15	-16.9	-32.0	0.220	1.479	-0.773	-1.259
20070628	A	26.80	-20	-15.2	-18.4	0.185	-0.604	-0.375	0.698
20070703	B	29.18	-20	-18.6	-22.3	1.233	-0.604	-1.171	0.137
20070705	A	27.93	-20	-11.3	-8.7	0.683	-0.604	0.539	2.094
20070712	B	29.58	-20	-18.6	-18.2	1.410	-0.604	-1.171	0.727
20070713	G	28.51	-16	-18.9	-18.6	0.938	1.063	-1.241	0.669
20070720	B	28.45	-19	-15.6	-19.0	0.912	-0.187	-0.468	0.612
20070726	A	25.90	-20	-18.6	-16.6	-0.211	-0.604	-1.171	0.957
20070730	B	29.22	-20	-14.3	-18.6	1.251	-0.604	-0.164	0.669
20070807	B	29.18	-19	-15.6	-21.1	1.233	-0.187	-0.468	0.309
20070809	A	25.84	-20	-9.7	-11.2	-0.238	-0.604	0.913	1.734
20070816	A	26.60	-20	-16.7	-21.6	0.097	-0.604	-0.726	0.237
20070830	B	29.57	-19	-15.4	-19.1	1.405	-0.187	-0.422	0.597
20070831	A	28.95	-21	-14.4	-7.6	1.132	-1.021	-0.187	2.252
20070914	A	26.29	-19	-14.4	-19.8	-0.040	-0.187	-0.187	0.496
20070921	B	29.64	-19	-19.4	-23.8	1.436	-0.187	-1.358	-0.079
20070926	A	25.87	-20	-15.7	-23.2	-0.225	-0.604	-0.492	0.007

VAMAC

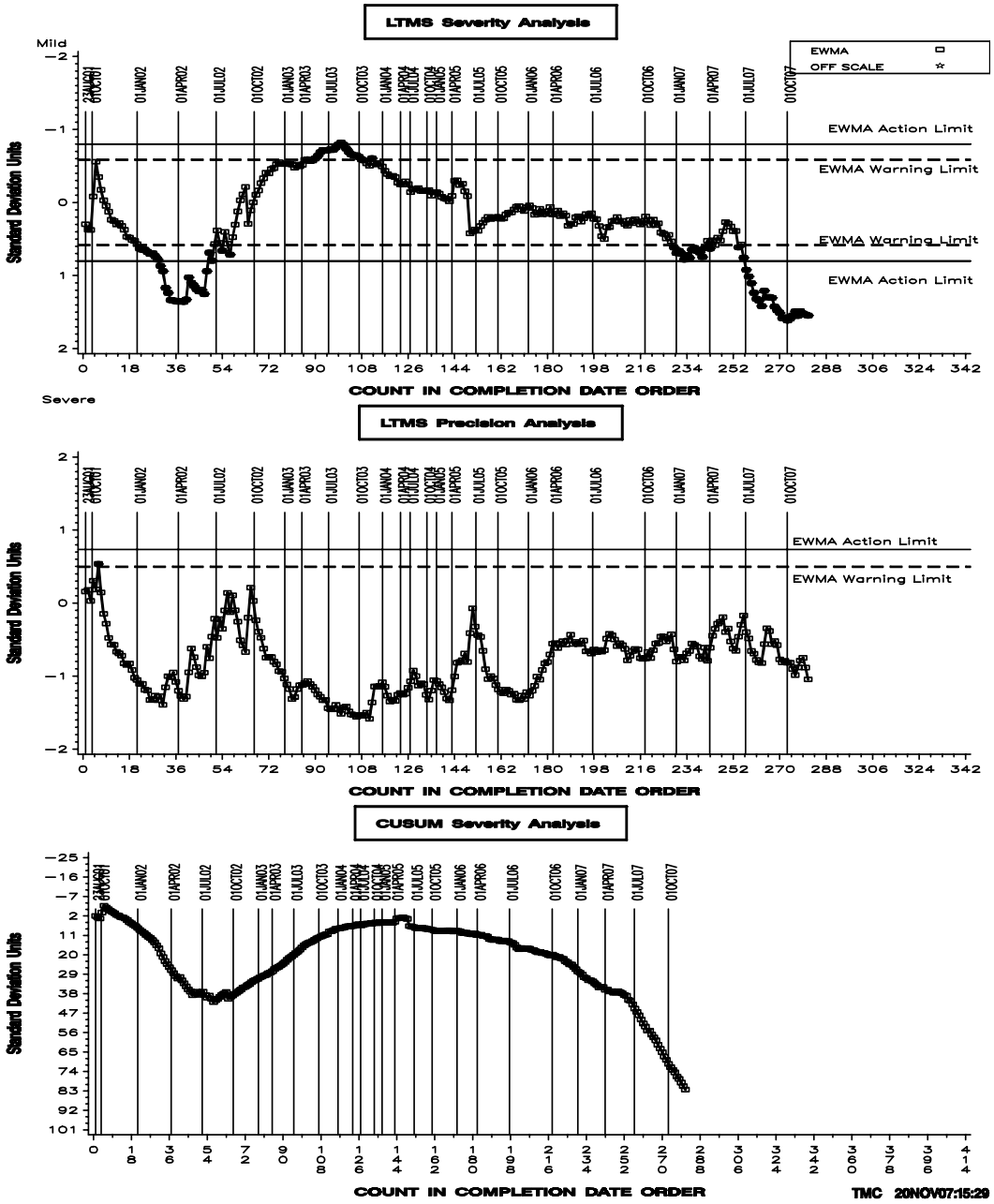
LTMS DATE	LAB	VOLC	HARD	TENS	ELON	VOLCYI	HARDYI	TENSYI	ELONYI
20070413	A	20.41	-8	-10.9	-24.2	1.107	0.095	1.871	0.238
20070501	A	19.12	-9	-15.2	-18.7	0.556	-0.958	1.235	0.686
20070514	B	21.36	-10	-13.1	-37.8	1.513	-2.011	1.546	-0.870
20070601	A	19.58	-10	-12.7	-30.0	0.752	-2.011	1.605	-0.235
20070607	B	20.78	-10	-9.9	-28.0	1.265	-2.011	2.019	-0.072
20070618	A	18.95	-9	-7.2	-25.3	0.483	-0.958	2.419	0.148
20070620	B	21.31	-9	-9.5	-30.5	1.491	-0.958	2.078	-0.275
20070628	G	20.66	-9	-21.5	-30.3	1.214	-0.958	0.303	-0.259
20070629	B	21.23	-10	-11.1	-28.6	1.457	-2.011	1.842	-0.121
20070629	A	19.61	-10	-5.2	-21.0	0.765	-2.011	2.714	0.498
20070711	B	21.14	-10	-12.3	-32.9	1.419	-2.011	1.664	-0.471
20070713	G	22.37	-10	-28.0	-6.8	1.944	-2.011	-0.658	1.655
20070719	B	21.02	-10	-9.8	-23.6	1.368	-2.011	2.034	0.287
20070727	A	20.24	-10	-18.4	-22.5	1.034	-2.011	0.762	0.376
20070802	B	21.01	-10	-12.1	-22.0	1.363	-2.011	1.694	0.417
20070806	B	14.11	-6	-6.7	-30.6	-1.585	2.200	2.493	-0.283
20070810	A	19.45	-10	-16.2	-5.9	0.697	-2.011	1.087	1.728
20070817	A	19.63	-8	-15.9	-12.7	0.774	0.095	1.132	1.174
20070820	B	20.66	-9	-9.6	-25.4	1.214	-0.958	2.064	0.140
20070831	B	21.53	-9	-8.9	-26.9	1.585	-0.958	2.167	0.018
20070903	A	20.54	-10	-6.4	-13.9	1.162	-2.011	2.537	1.077
20070918	A	20.95	-10	-9.1	-30.8	1.338	-2.011	2.138	-0.300
20070921	B	18.68	-9	-9.0	-21.1	0.368	-0.958	2.152	0.490
20070927	A	19.52	-9	-12.0	-15.7	0.726	-0.958	1.709	0.930

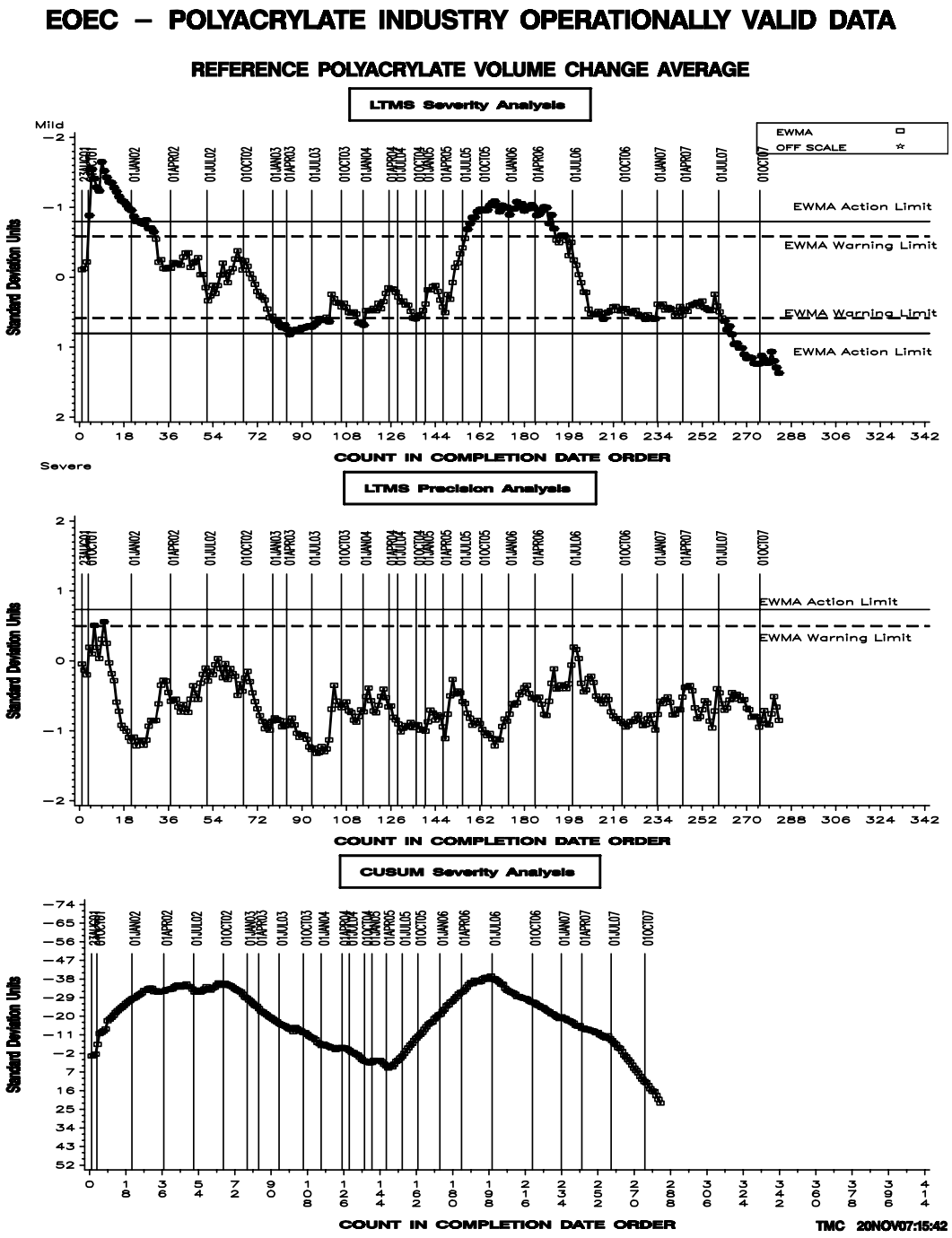
LTMS CONTROL CHARTS



EOEC – NITRILE INDUSTRY OPERATIONALLY VALID DATA

REFERENCE NITRILE VOLUME CHANGE AVERAGE




EOEC – POLYACRYLATE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE POLYACRYLATE VOLUME CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
EWMA Warning Limit
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COUNT IN COMPLETION DATE ORDER
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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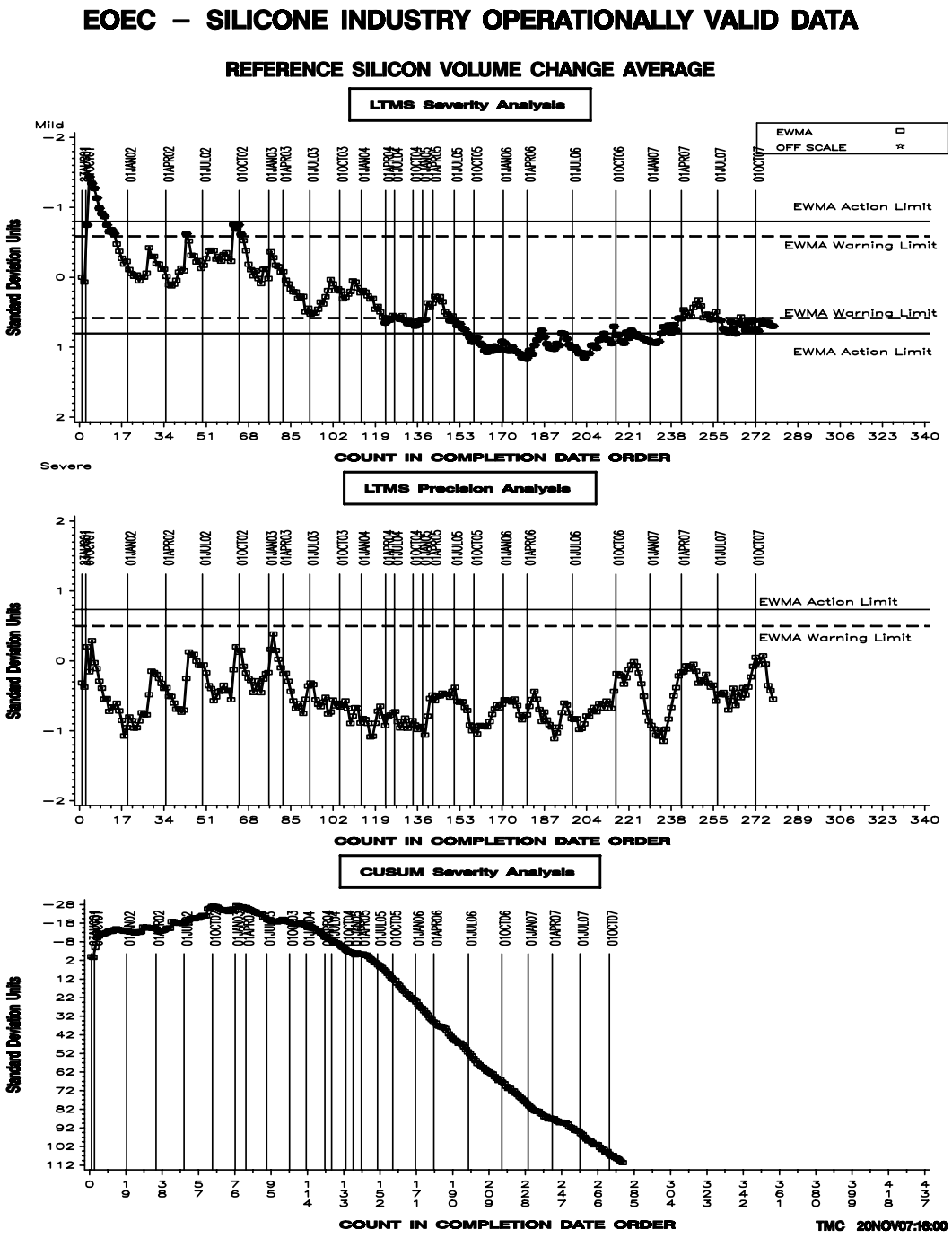
EOEC – SILICONE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE SILICON VOLUME CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
Standard Deviation Units
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
COUNT IN COMPLETION DATE ORDER
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COUNT IN COMPLETION DATE ORDER
CUSUM Severity Analysis
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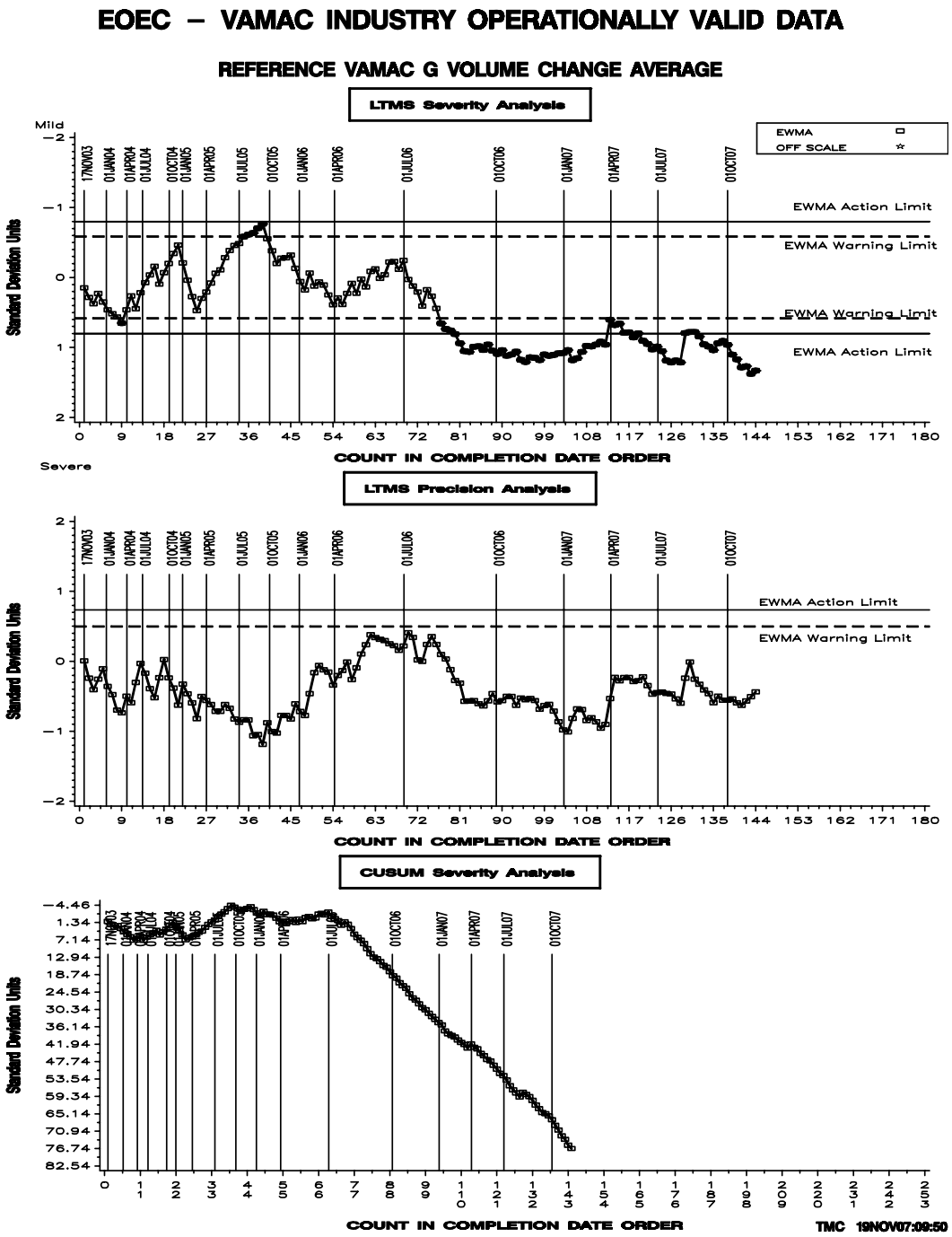
EOEC – VAMAC INDUSTRY OPERATIONALLY VALID DATA
REFERENCE VAMAC G VOLUME CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
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COUNT IN COMPLETION DATE ORDER
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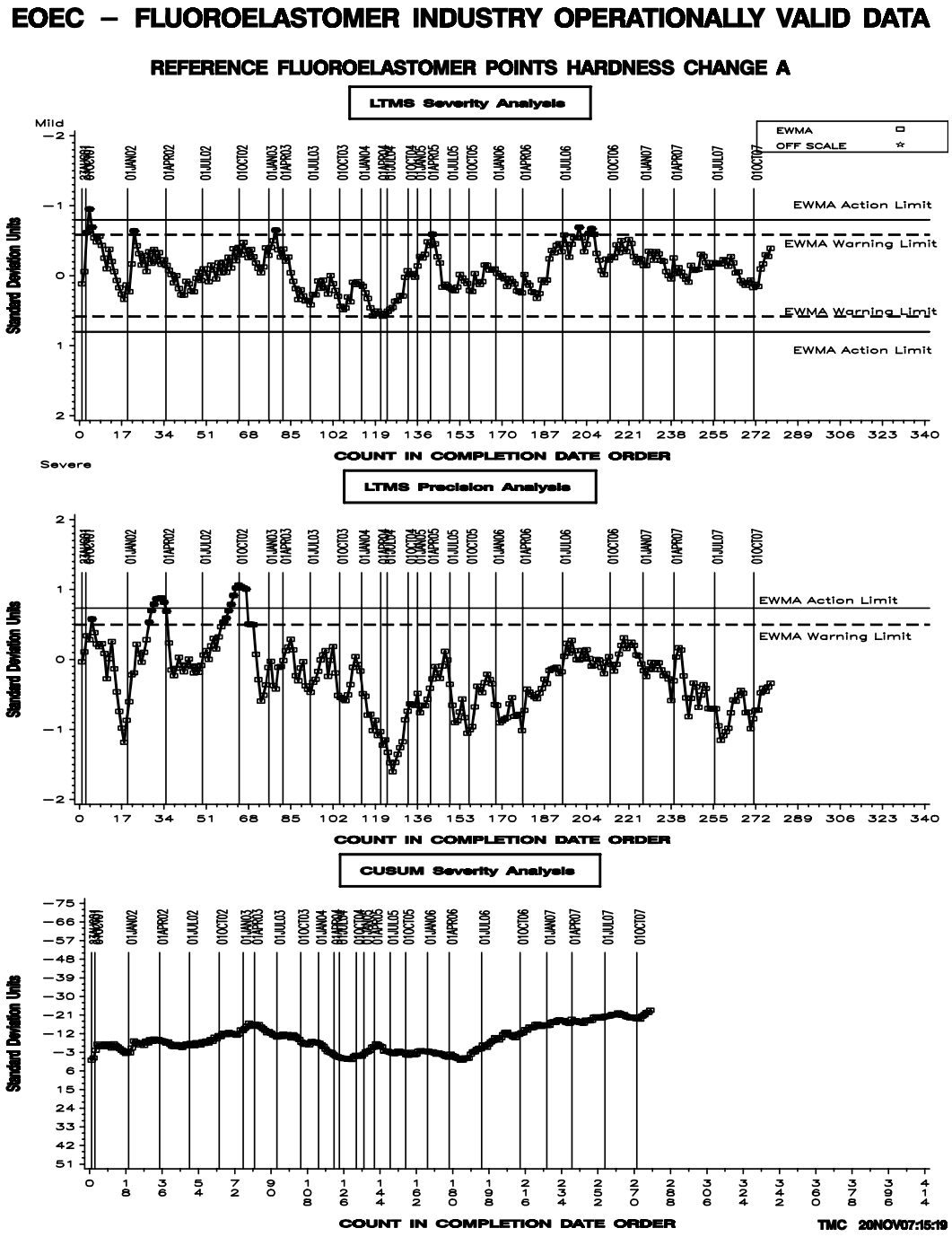
EOEC – FLUOROELASTOMER INDUSTRY OPERATIONALLY VALID DATA
REFERENCE FLUOROELASTOMER POINTS HARDNESS CHANGE A
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Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
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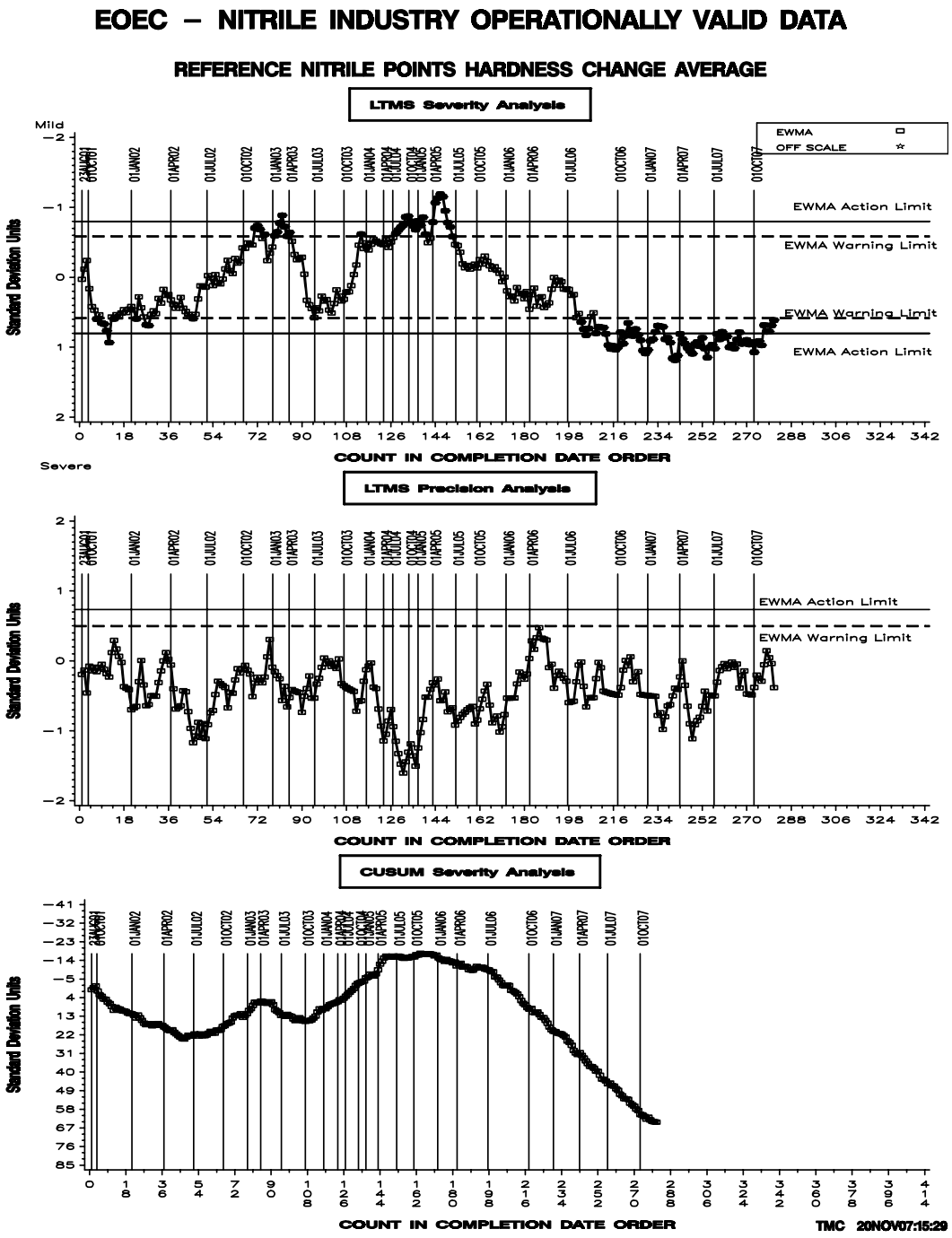
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
TMC 20NOV07:15:19


EOEC – NITRILE INDUSTRY OPERATIONALLY VALID DATA
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Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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CUSUM Severity Analysis
Standard Deviation Units
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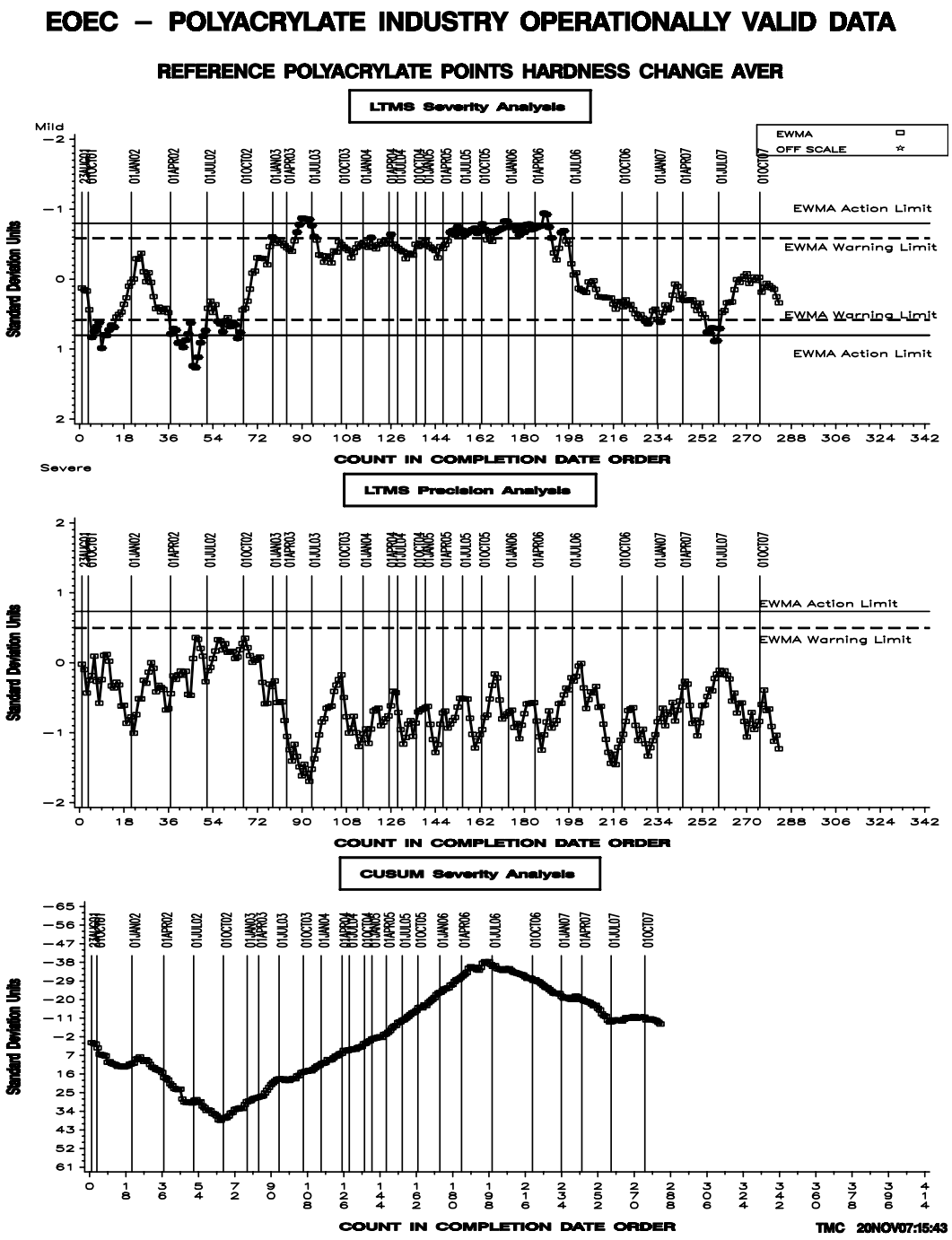
EOEC – POLYACRYLATE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE POLYACRYLATE POINTS HARDNESS CHANGE AVER
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Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
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CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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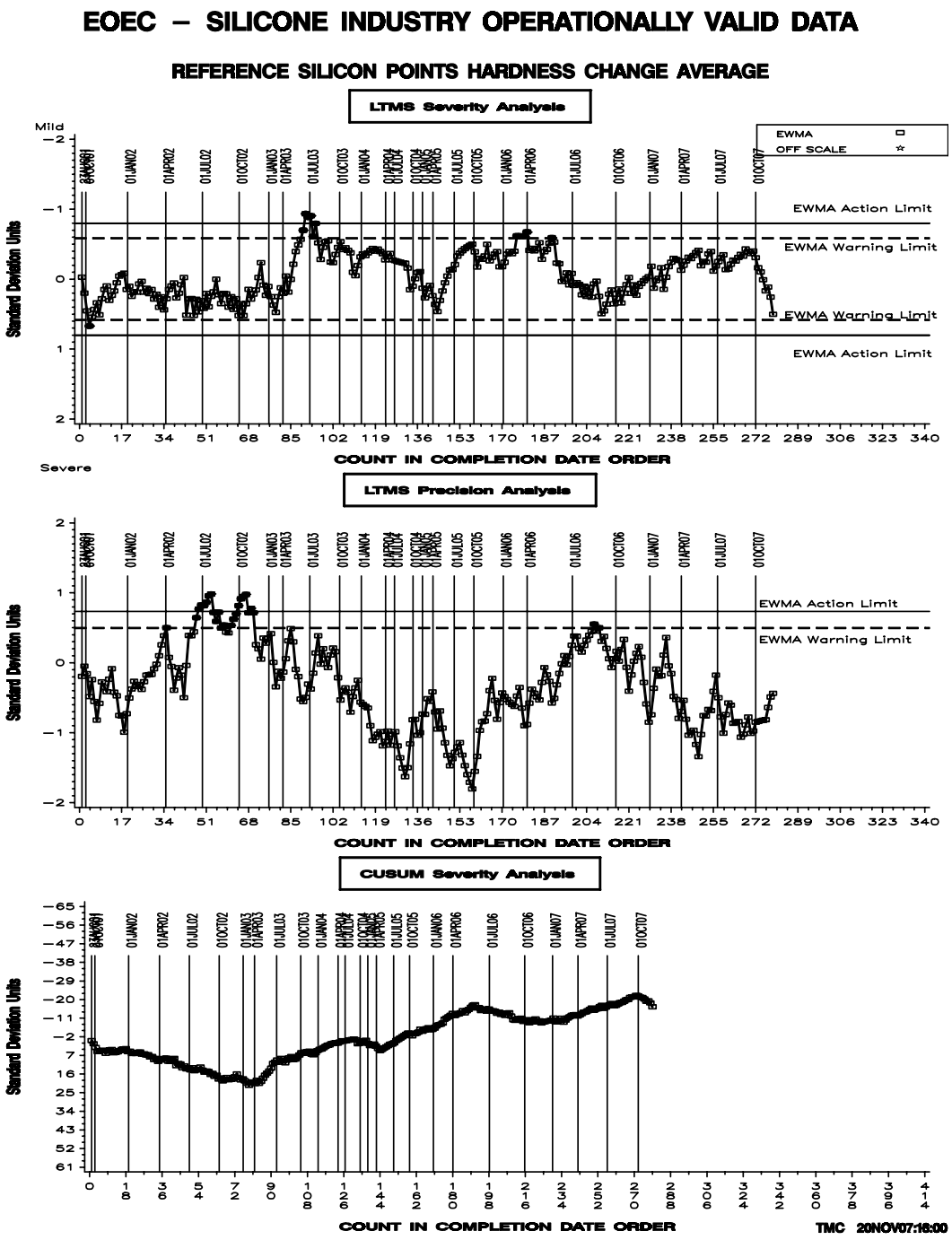
EOEC – SILICONE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE SILICON POINTS HARDNESS CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
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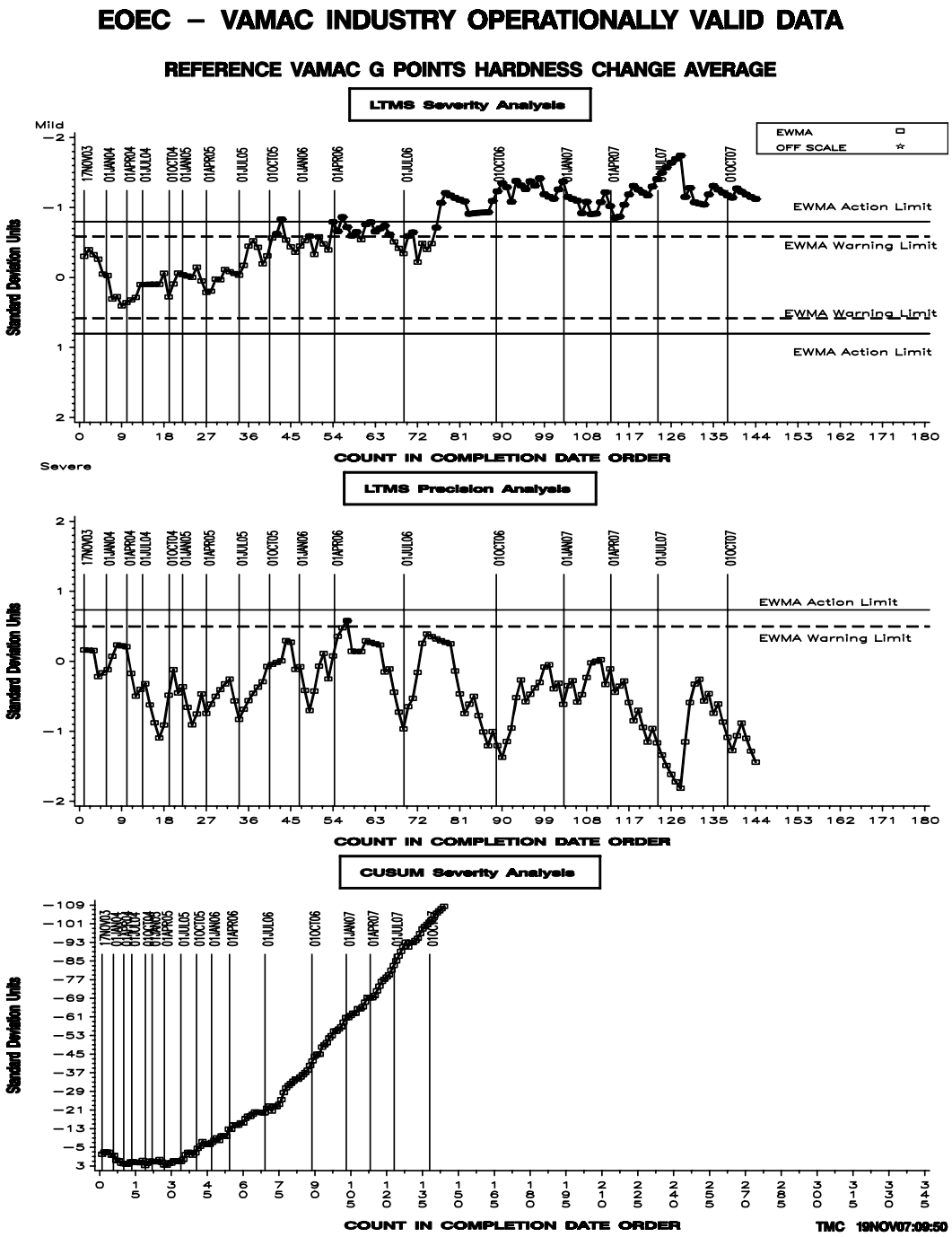
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
TMC 20NOV07:16:00


EOEC – VAMAC INDUSTRY OPERATIONALLY VALID DATA
REFERENCE VAMAC G POINTS HARDNESS CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
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Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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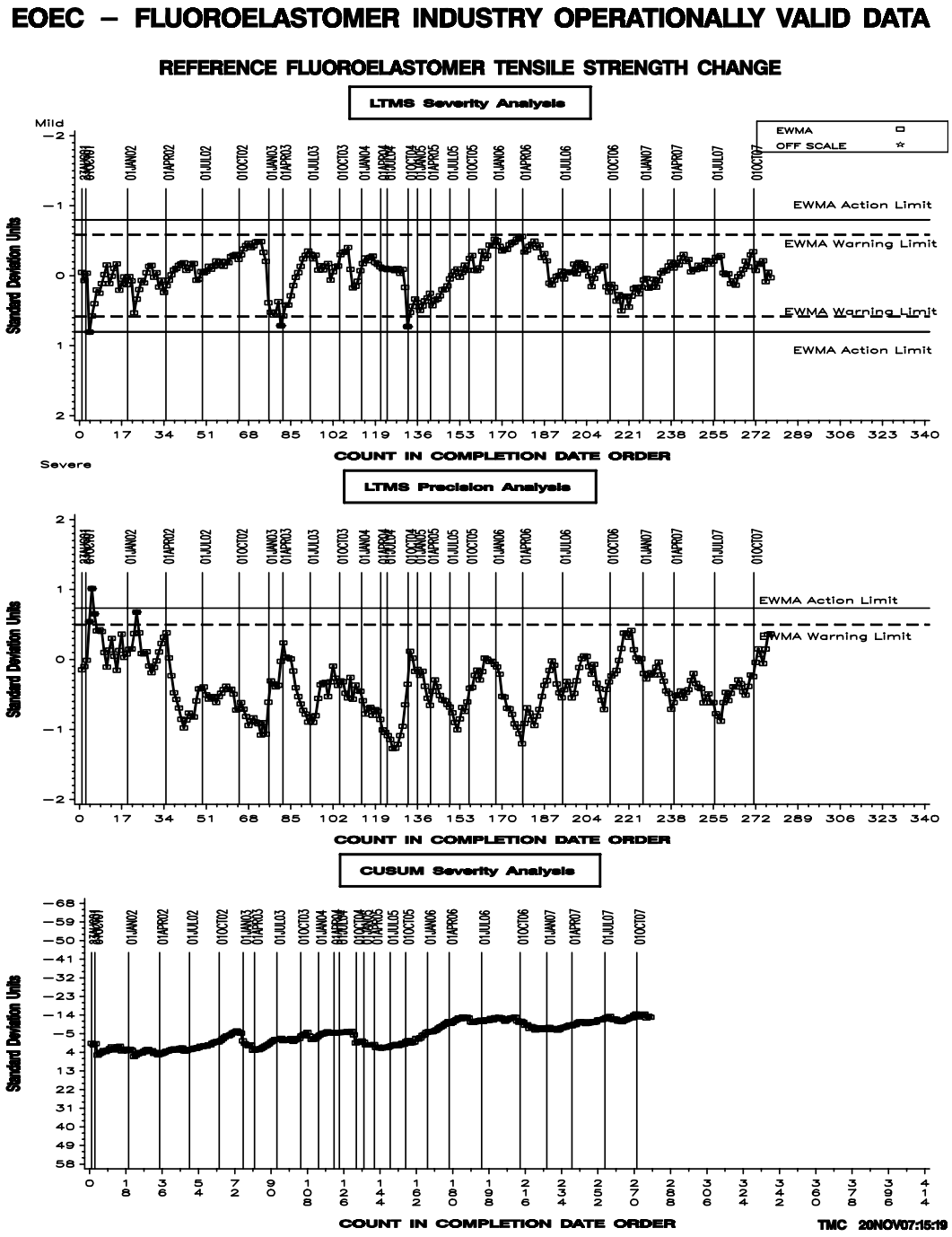
EOEC – FLUOROELASTOMER INDUSTRY OPERATIONALLY VALID DATA
REFERENCE FLUOROELASTOMER TENSILE STRENGTH CHANGE
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Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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COUNT IN COMPLETION DATE ORDER
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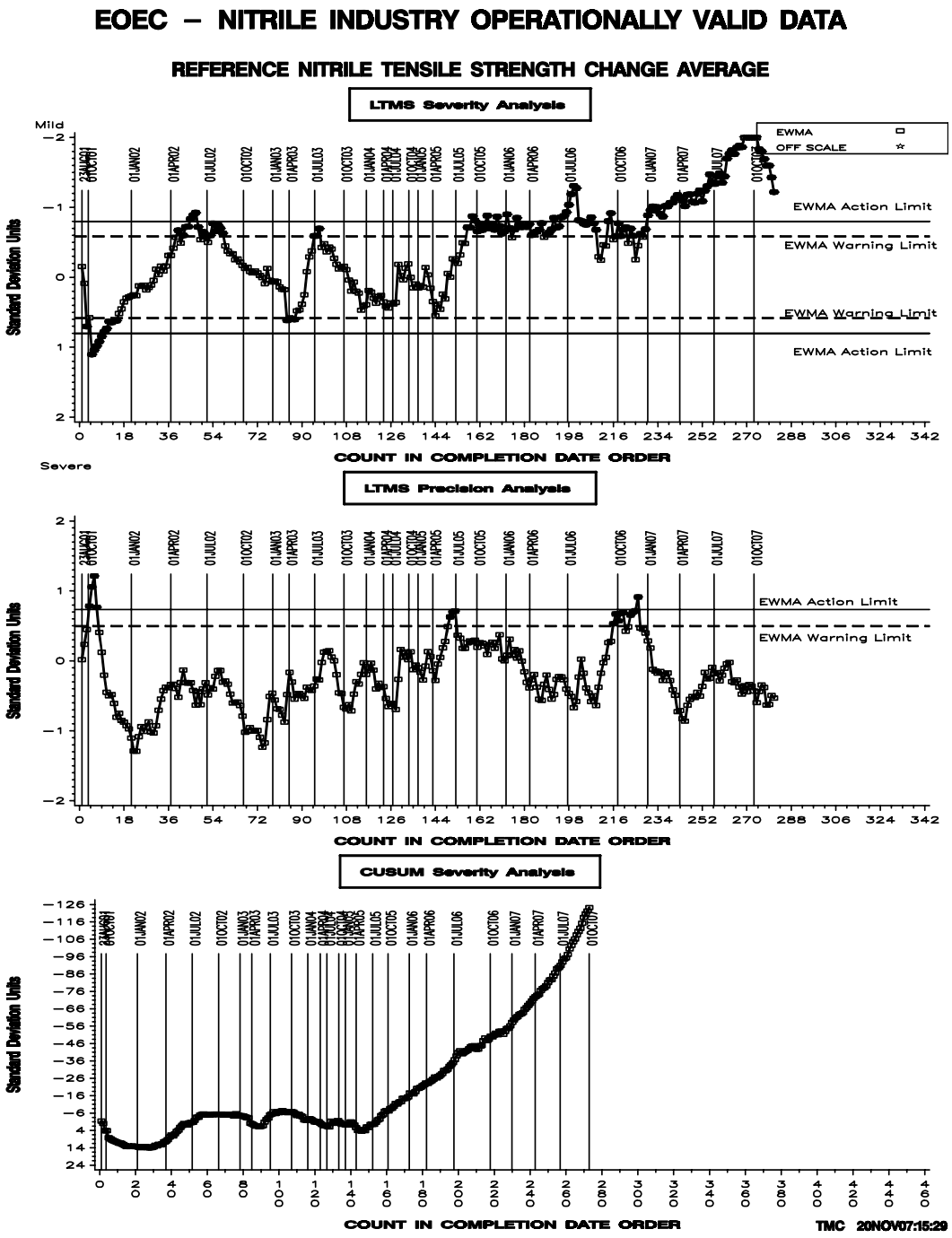
EOEC – NITRILE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE NITRILE TENSILE STRENGTH CHANGE AVERAGE
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Mild
Severe
Standard Deviation Units
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
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Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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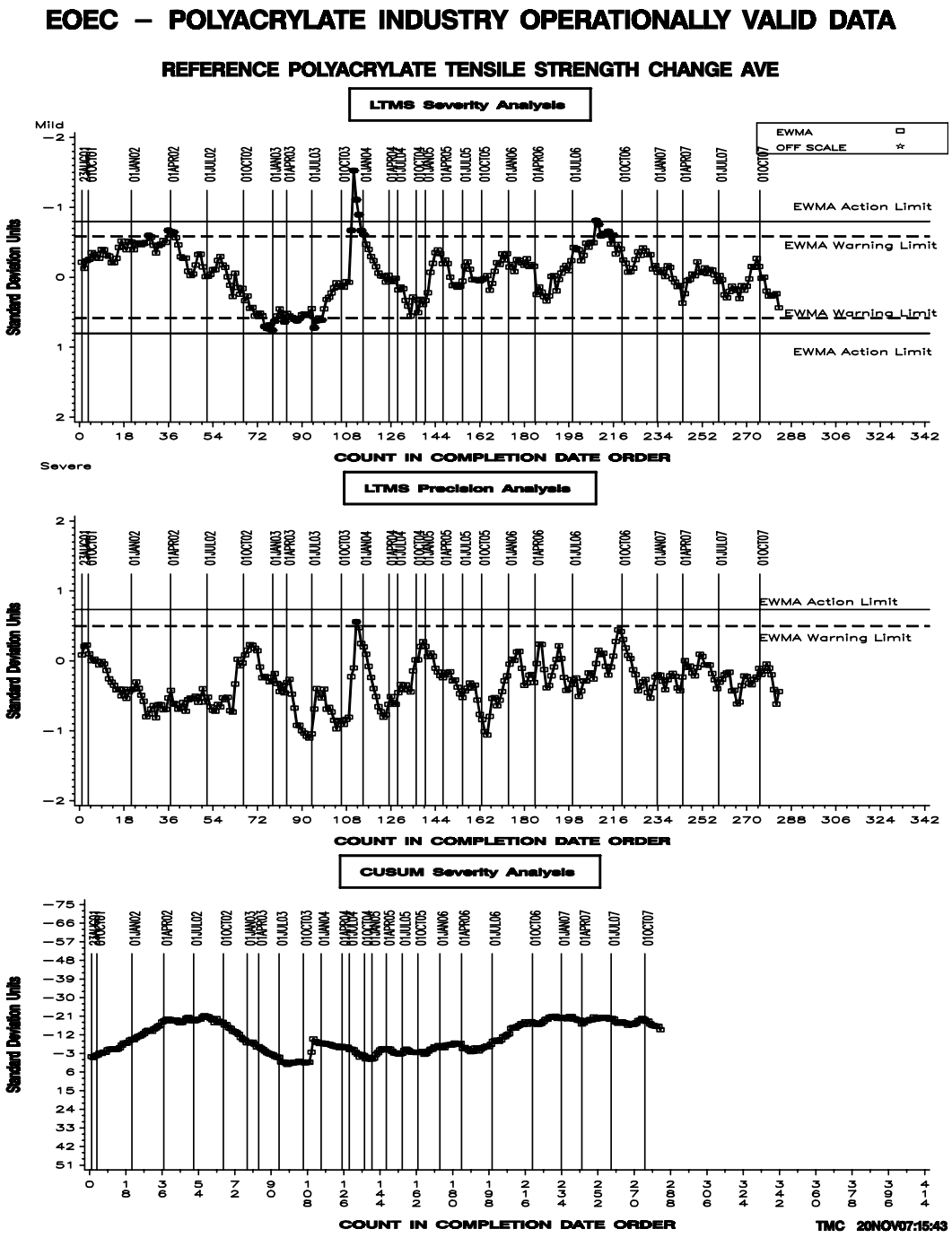
EOEC – POLYACRYLATE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE POLYACRYLATE TENSILE STRENGTH CHANGE AVE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
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COUNT IN COMPLETION DATE ORDER
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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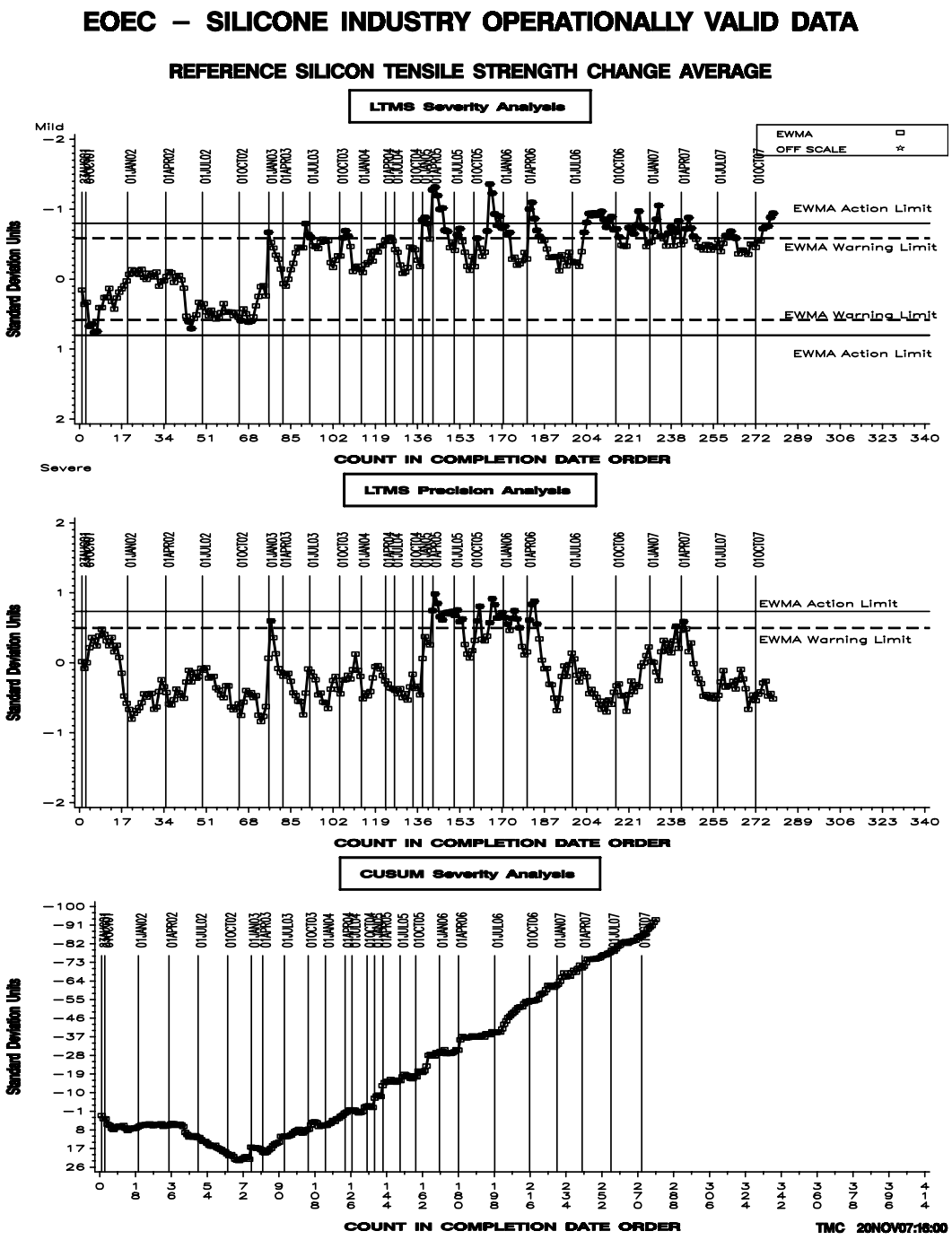
EOEC – SILICONE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE SILICON TENSILE STRENGTH CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
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COUNT IN COMPLETION DATE ORDER
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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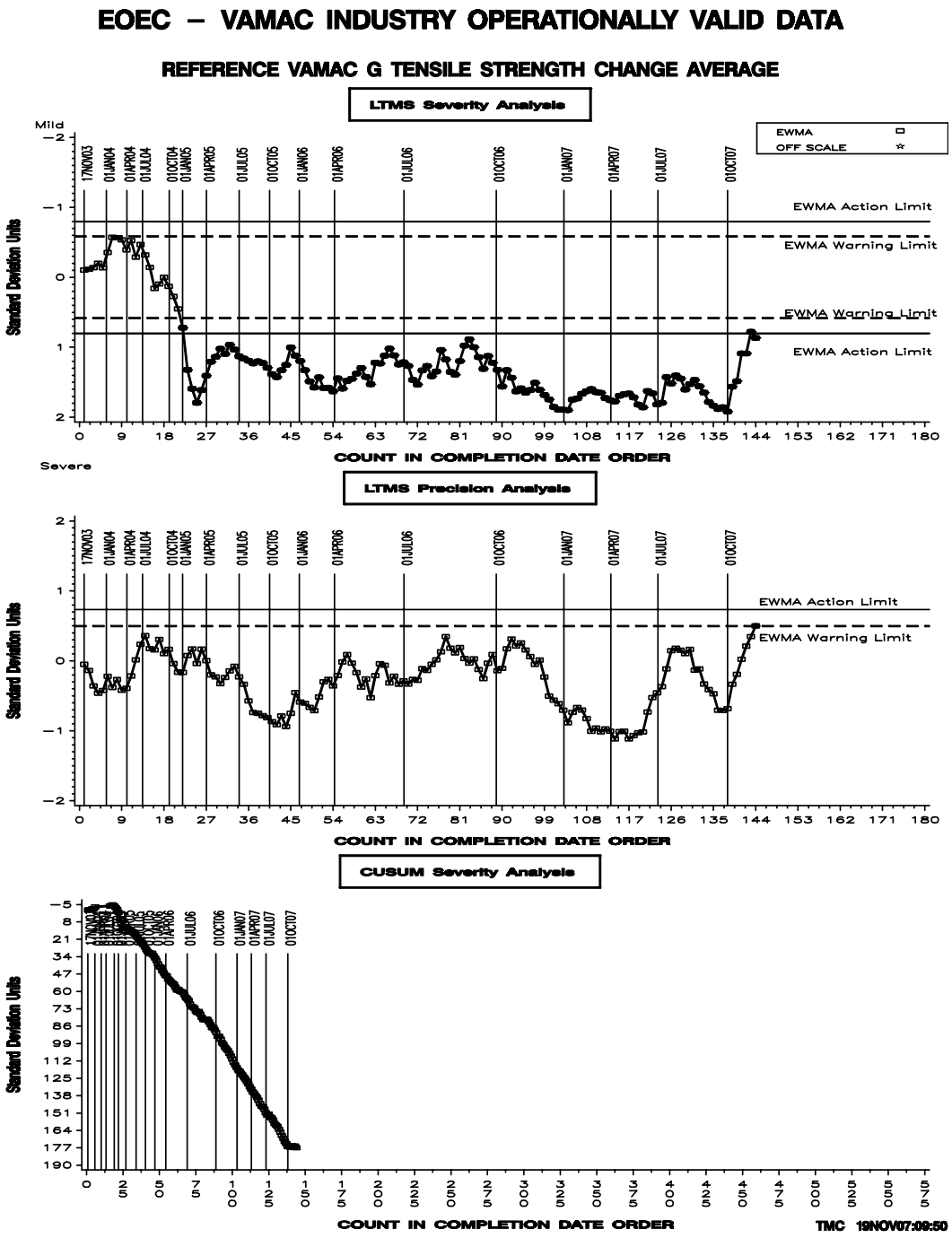
EOEC – VAMAC INDUSTRY OPERATIONALLY VALID DATA
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LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
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CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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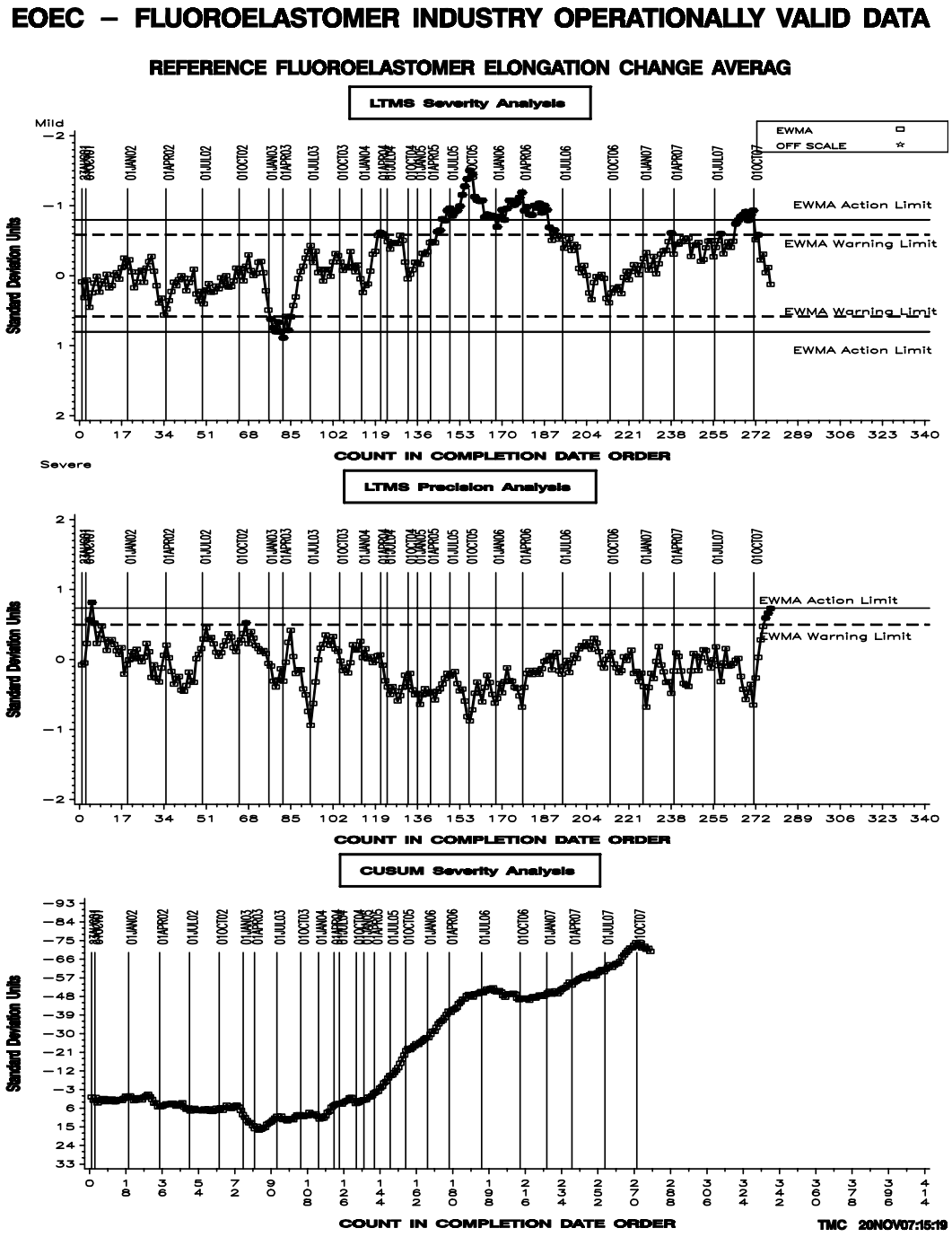
EOEC – FLUOROELASTOMER INDUSTRY OPERATIONALLY VALID DATA
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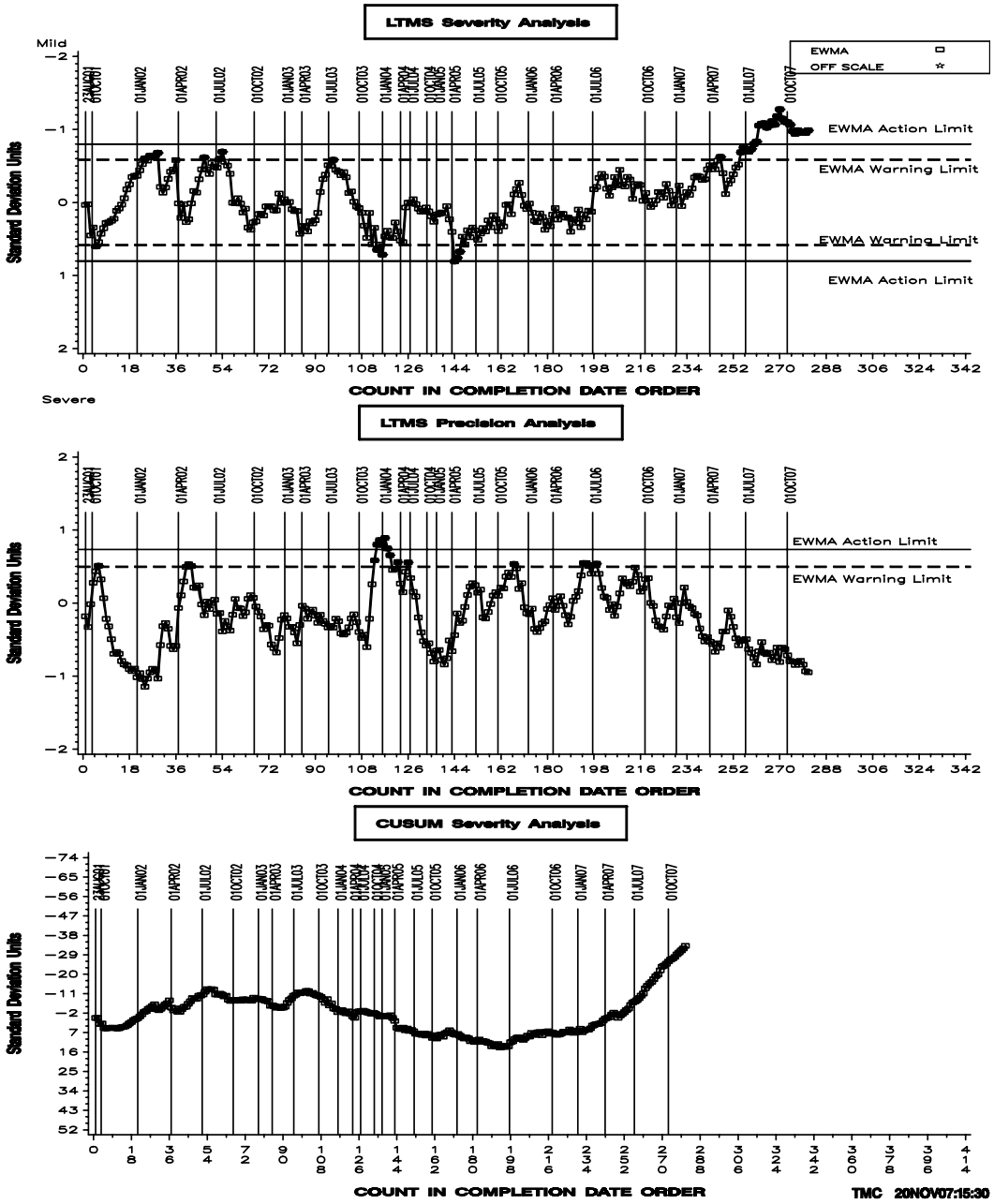
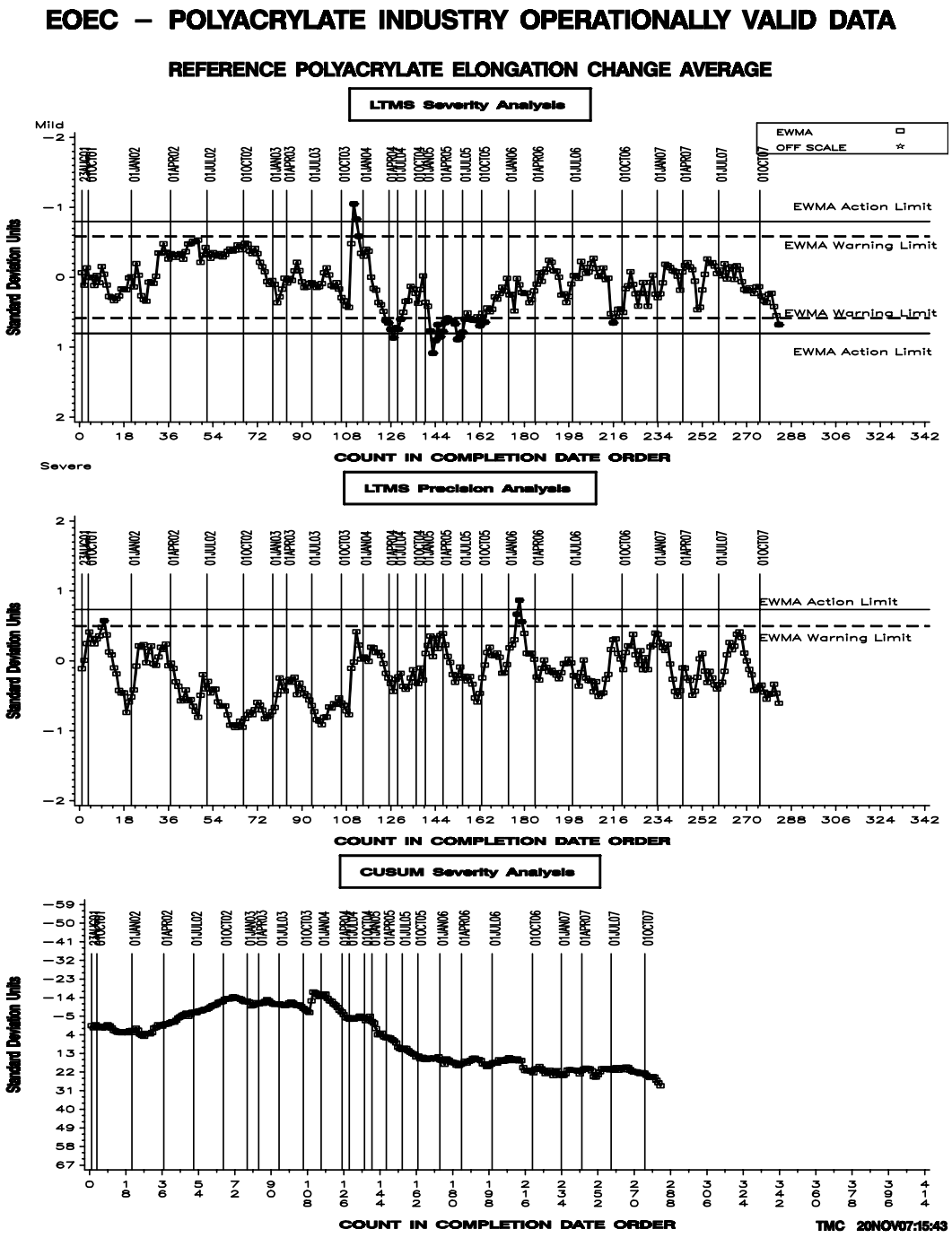
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
EWMA Warning Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
TMC 20NOV07:15:19

EOEC – NITRILE INDUSTRY OPERATIONALLY VALID DATA

REFERENCE NITRILE ELONGATION CHANGE AVERAGE




EOEC – POLYACRYLATE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE POLYACRYLATE ELONGATION CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
EWMA Warning Limit
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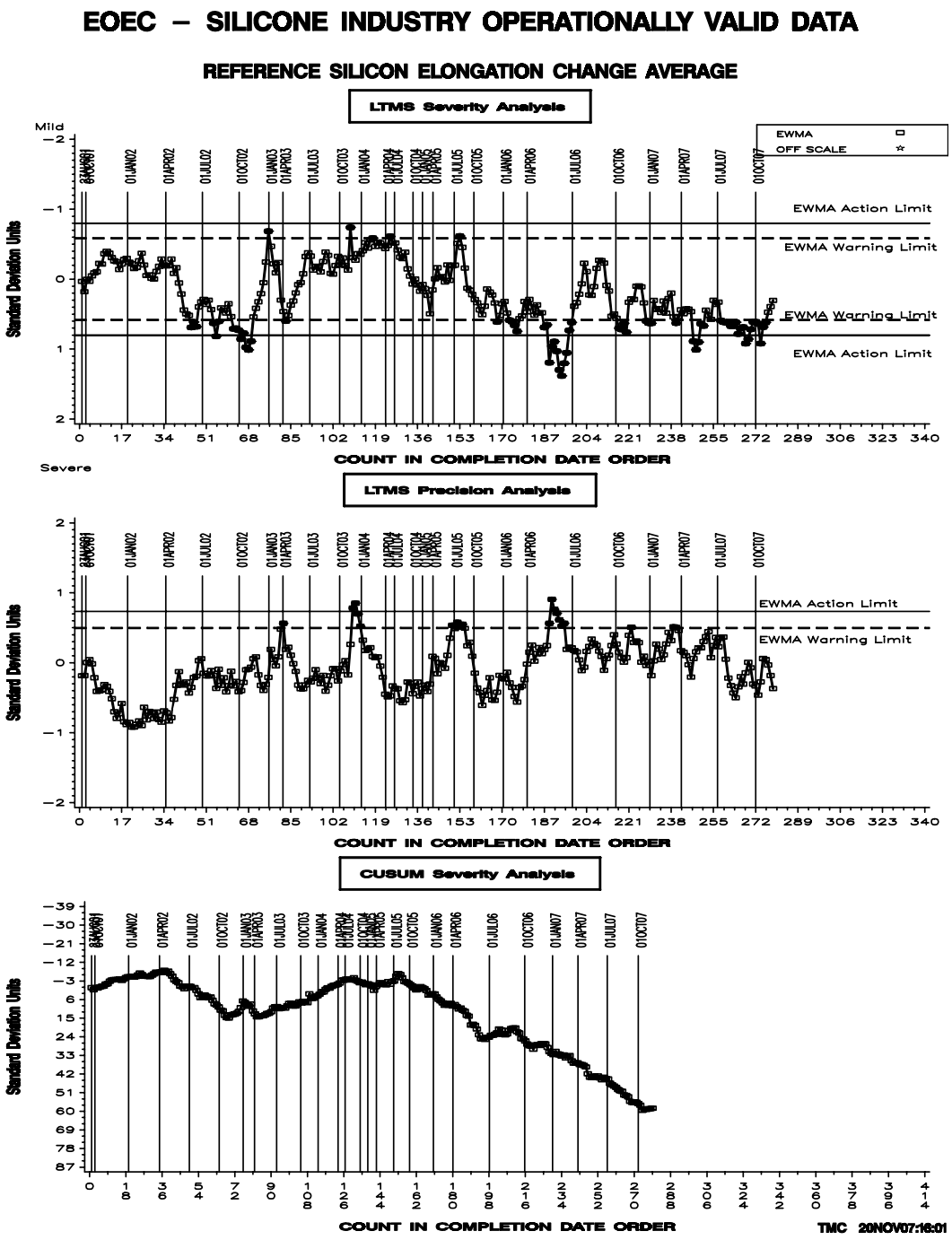
COUNT IN COMPLETION DATE ORDER
CUSUM Severity Analysis
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
TMC 20NOV07:15:43


EOEC – SILICONE INDUSTRY OPERATIONALLY VALID DATA
REFERENCE SILICON ELONGATION CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
COUNT IN COMPLETION DATE ORDER
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COUNT IN COMPLETION DATE ORDER
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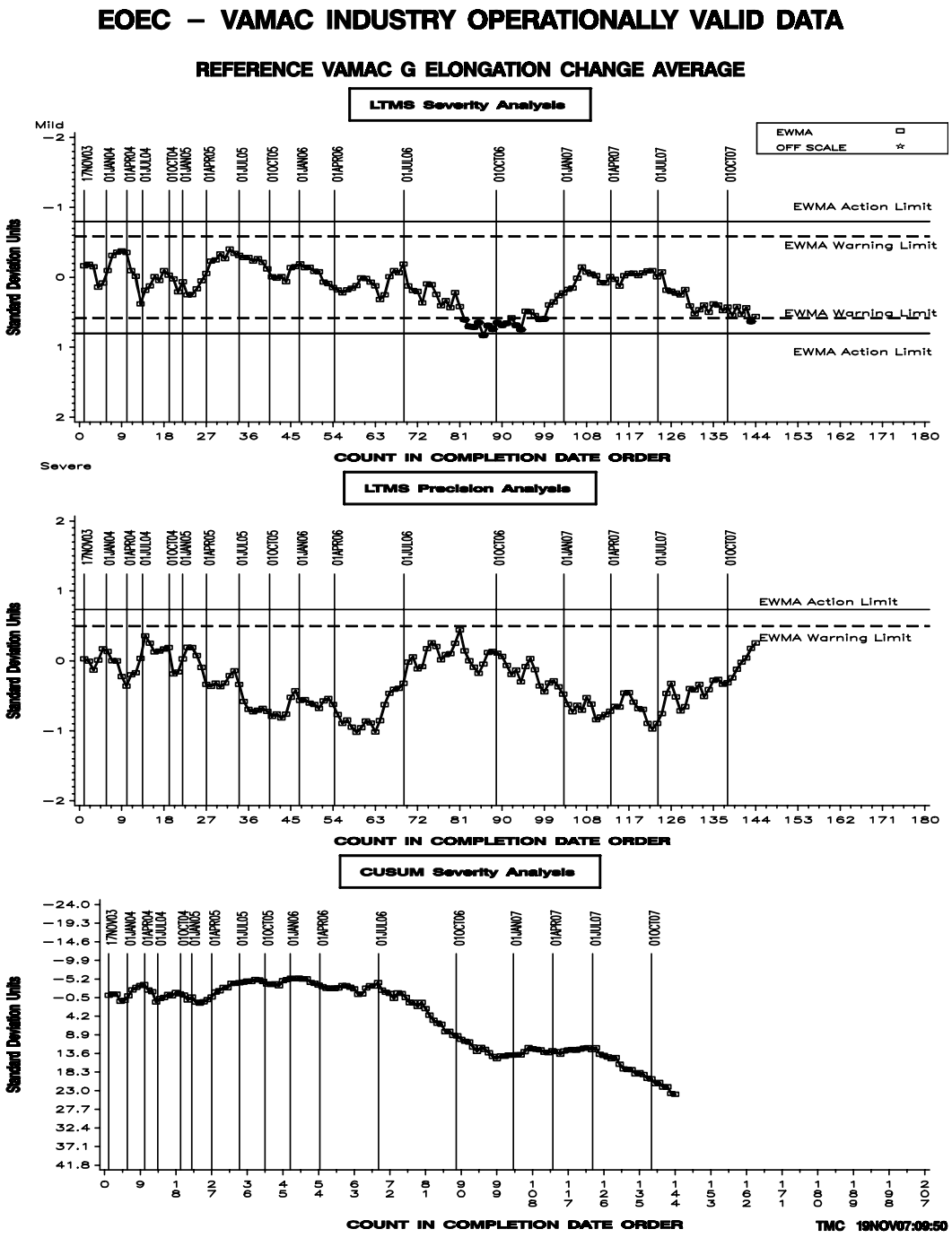
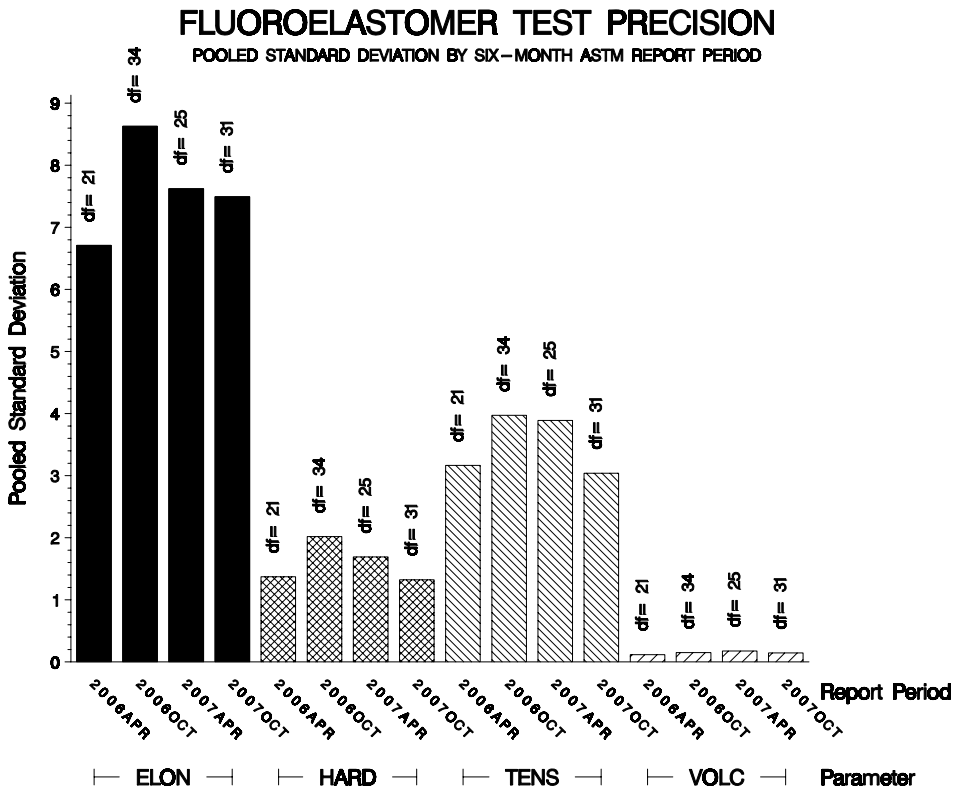
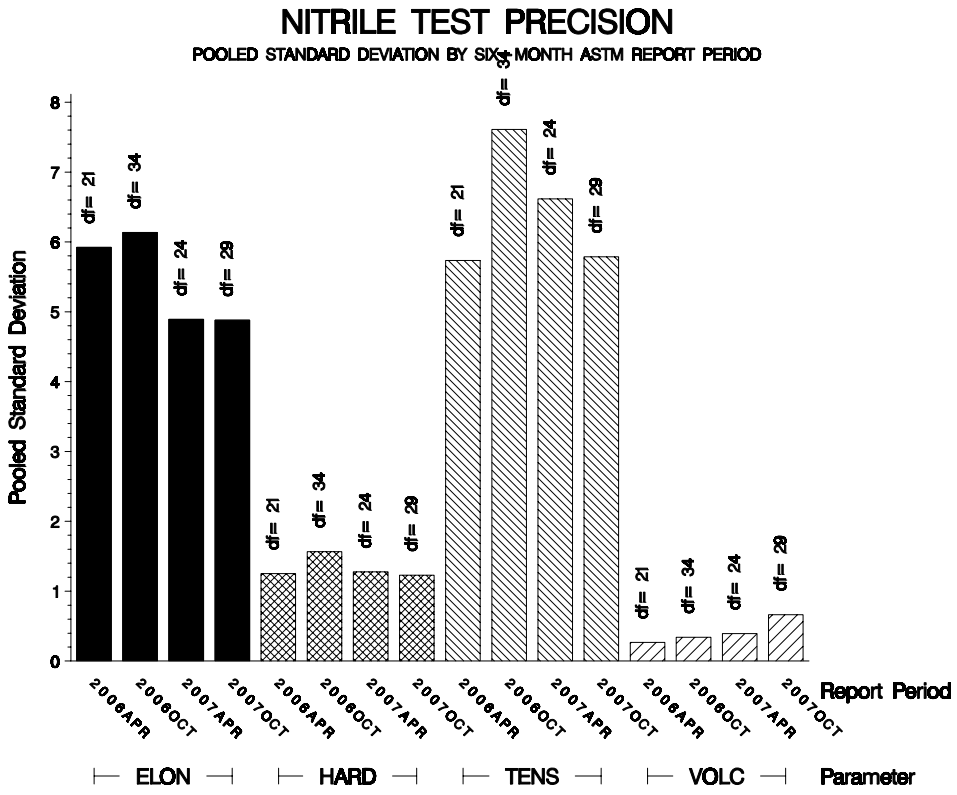
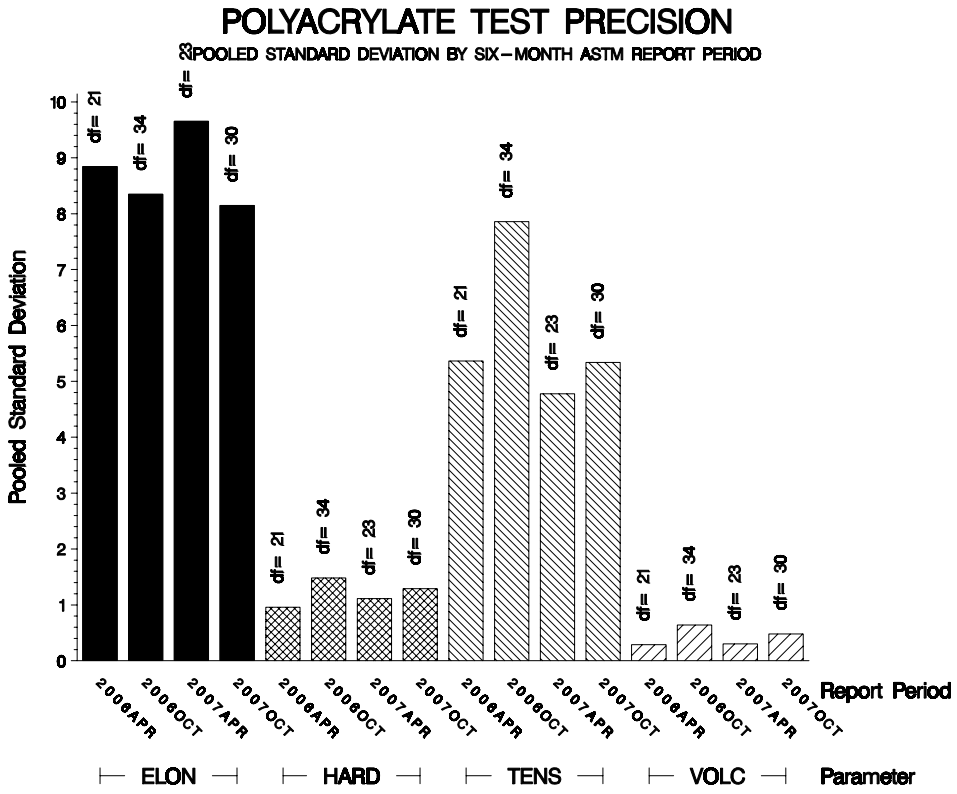

EOEC – VAMAC INDUSTRY OPERATIONALLY VALID DATA
REFERENCE VAMAC G ELONGATION CHANGE AVERAGE
LTMS Severity Analysis
Mild
Severe
EWMA
OFF SCALE
EWMA Action Limit
EWMA Warning Limit
EWMA Warning Limit
EWMA Action Limit
Standard Deviation Units
17NOV03
01JAN04
01APR04
01JUL04
01OCT04
01JAN05
01APR05
01JUL05
01OCT05
01JAN06
01APR06
01JUL06
01OCT06
01JAN07
01APR07
01JUL07
01OCT07
COUNT IN COMPLETION DATE ORDER
LTMS Precision Analysis
EWMA Action Limit
EWMA Warning Limit
CUSUM Severity Analysis
TMC 19NOV07:09:50

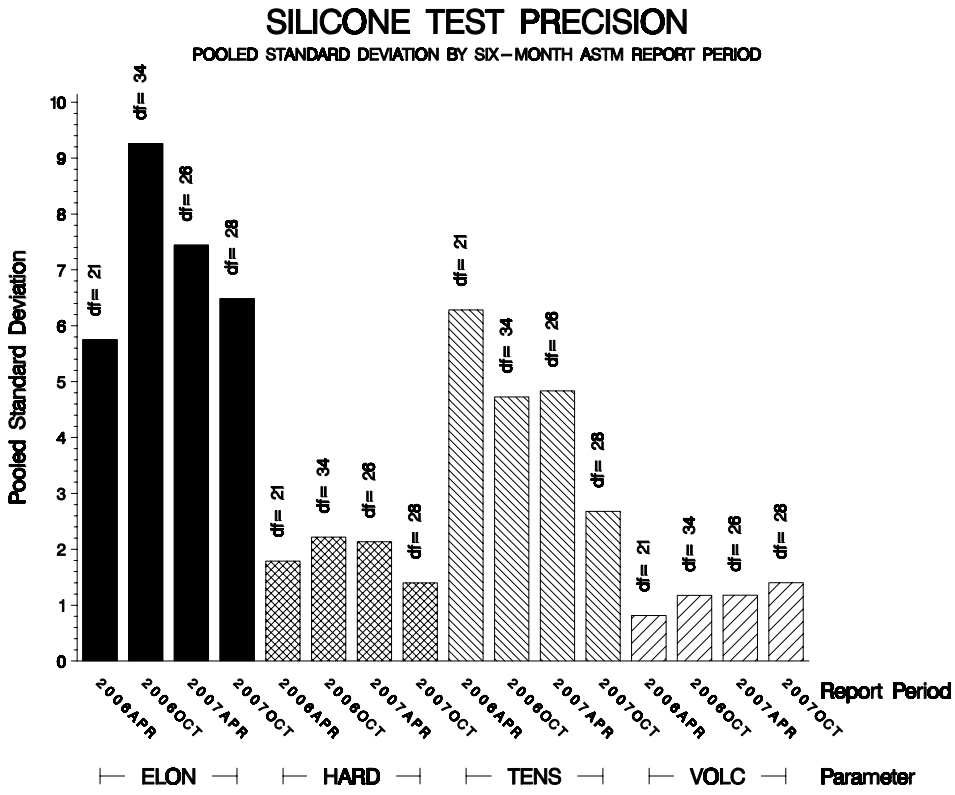
POOLED S:

Shown below are bar charts comparing the pooled s values for the EOEC test parameters over the last four report periods. Where degrees of freedom equal zero, no bars are shown. This will occur where only one test was reported or where multiple tests are reported but all are on different oils. Periods showing no information had no tests reported.




NITRILE TEST PRECISION
POOLED STANDARD DEVIATION BY SIX-MONTH ASTM REPORT PERIOD
Pooled Standard Deviation
df= 21
df= 34
df= 24
df= 29
Report Period
2006APR
2006OCT
2007APR
2007OCT
ELON
HARD
TENS
VOLC
Parameter


POLYACRYLATE TEST PRECISION
POOLED STANDARD DEVIATION BY SIX-MONTH ASTM REPORT PERIOD
Pooled Standard Deviation
df= 21
df= 34
df= 30
df= 23
Report Period
2006APR
2006OCT
2007APR
2007OCT
ELON
HARD
TENS
VOLC
Parameter


SILICONE TEST PRECISION
POOLED STANDARD DEVIATION BY SIX-MONTH ASTM REPORT PERIOD
Pooled Standard Deviation
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df= 34
df= 26
df= 28
Report Period
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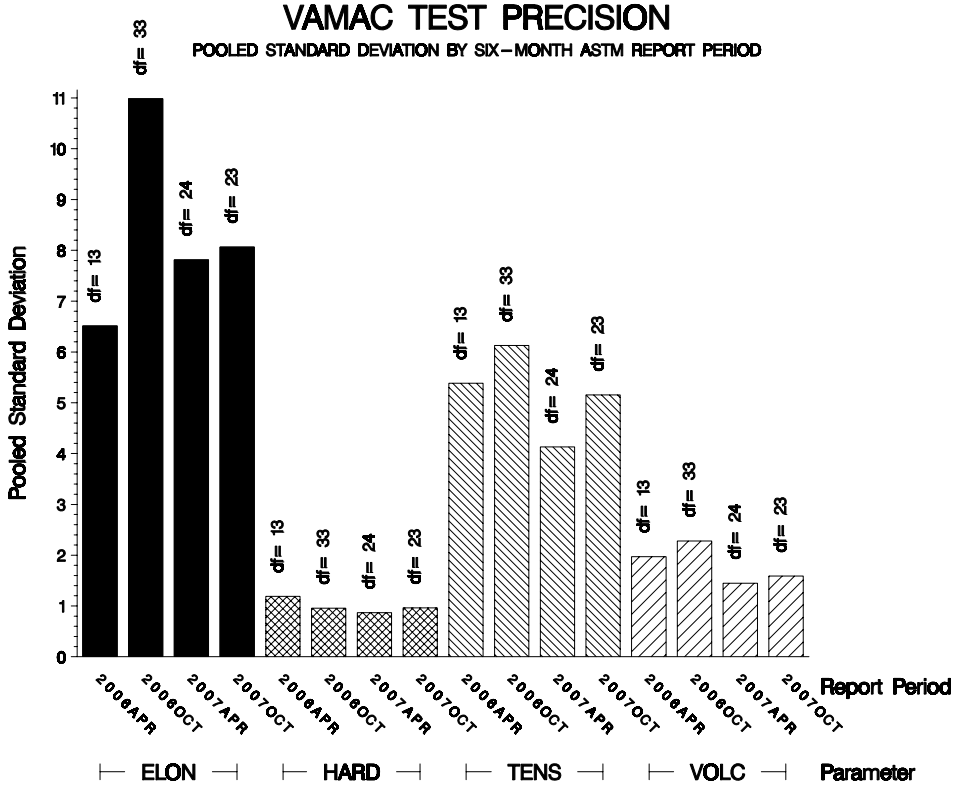
2006OCT
2007APR
2007OCT
ELON
HARD
TENS
VOLC
Parameter


VAMAC TEST PRECISION
POOLED STANDARD DEVIATION BY SIX-MONTH ASTM REPORT PERIOD
Pooled Standard Deviation
df= 13
df= 33
df= 24
df= 23
Report Period
2006APR
2006OCT
2007APR
2007OCT
ELON
HARD
TENS
VOLC
Parameter

STATUS OF REFERENCE OIL SUPPLY:
At the end of this report period, the testing oil supply stood as outlined in the following table:

		@ TMC	
Oil	Cans @ Labs	Cans	Gallons
1006-1	127	14420	2857
Total	127	14420	2857

* Future reblends of oils marked with an asterisk are not obtainable by TMC.

Be aware that this table presumes that all of each of these oils is dedicated to the EOEC test area. This is not the case; all of these oils are also used in several other test areas.

INFORMATION LETTERS:
No information letters were issued during this report period.

SUMMARY

Summary of Severity
as Measured by LTMS Control Charting

Elastomer	VOLC	HARD	TENS	ELON
Fluoroelastomer	Within limits	Within limits	Within limits	Within limits
Nitrile	**Severe**	**Severe**	**Mild**	**Mild**
Polyacrylate	**Severe**	Within limits	Within limits	**Severe**
Silicone	**Severe**	Within limits	**Mild**	Within limits
VAMAC	**Severe**	**Mild**	**Severe**	Within limits

Summary of Precision
as Measured by LTMS Control Charting

Elastomer	VOLC	HARD	TENS	ELON
Fluoroelastomer	Within limits	Within limits	Within limits	Warning
Nitrile	Within limits	Within limits	Within limits	Within limits
Polyacrylate	Within limits	Within limits	Within limits	Within limits
Silicone	Within limits	Within limits	Within limits	Within limits
VAMAC	Within limits	Within limits	Warning	Within limits

SDP/sdp/astm1007.doc/mem07-084.sdp.doc
c: J. L. Zalar
F. M. Farber
EOEC Surveillance Panel
ftp://ftp.astmtmc.cmu.edu/docs/bench/eoec/semiannualreports/eoec-10-2007.pdf

Distribution: email