



Combined State Binder Group

Method of Acceptance for
Asphalt Binders

RR 2007-3
SUMMARY A

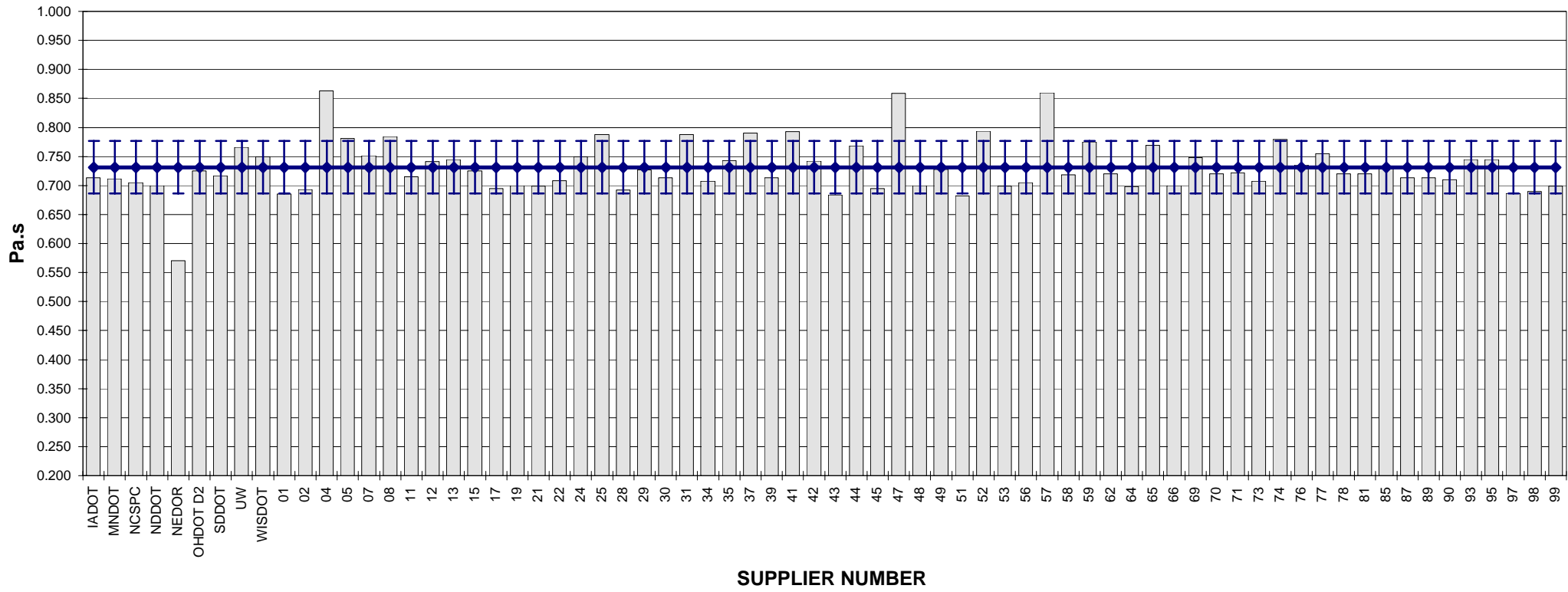
COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P

Supplier Number	Rotational Viscosity (Pa.s) @135°C	DSR Original (kPa) @64°C	Phase Angle @64°C	DSR RTFO (kPa) @64°C	Elastic Recovery (%) @25°C	DSR PAV (kPa) @22°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-18°C	BBR m-value @-18°C	DTT Strain (%) @-18°C	DTT Stress (MPa) @-18°C	CRITICAL CRACK TEMP (°C)
IADOT	0.713	1.75	75.9	4.30	60	2,406	-0.485	206	0.317			
MNDOT	0.712	1.64	75.8	4.69		2,396	-0.671	190	0.330			
NCSPC	0.705	1.71	76.4	4.54	50	2,317	-0.614	208	0.324			
NDDOT	0.700	1.61	76.1	4.15	63	3,178	-0.575	200	0.327			
NEDOR	0.570	1.65	76.1	4.49	60	3,036	-0.422	227	0.323			
OHDOT D2	0.725	1.73	76.0	5.09		3,251	-0.532	222	0.312			
SDDOT	0.717	1.52	76.1	4.38	58	2,875	-0.474	212	0.317			
UW	0.766	1.42	75.8	3.71		2,529	-0.875	192	0.308			
WISDOT	0.750	1.50	76.4	4.65		2,970	-0.565	196	0.313			
01	0.685	1.62	75.8	4.86		2,822	-0.504	210	0.313			
02	0.693	1.66	76.0	4.34	59	2,546	-0.578	216	0.324			
04	0.863	1.69	75.8	4.82		2,154	-0.502	206	0.340			
05	0.781	1.65	75.8	4.28	58	2,608	-0.426	206	0.314			
07	0.751	1.70	75.6	4.19	58	2,902	-0.536	211	0.322			
08	0.784	1.65	75.9	4.48	57	2,453	-0.403	195	0.318			
11	0.715	1.74	75.8	4.43	59	2,259	-0.562	218	0.326			
12	0.741	1.66	76.4	4.30	54	2,764	-0.236	220	0.322			
13	0.745	1.72	75.9	5.32	57	2,620	-0.497	214	0.334	1.65	4.50	-30.5
15	0.725	1.60	76.4	4.35	55	2,458	-0.650	188	0.325			
17	0.695	1.69	75.6	4.78		2,408	-0.448	201	0.331			
19	0.700	1.62	76.0	4.41	55	2,620	-0.602	219	0.333			
21	0.699	1.58	76.0	4.71	60	2,275	-0.516	220	0.319			
22	0.708	1.71	76.4	4.70		2,850	-0.628	202	0.332			
24	0.750	1.74	75.8	5.13	56	2,690	-0.503	206	0.335	1.76	4.59	-31.9
25	0.788	1.57	76.0	4.72	58	3,327	-0.653	217	0.317			
28	0.692	1.58	76.0	4.42	58	2,350	-0.486	211	0.331			
29	0.727	1.63	75.9	4.56	54	2,945	-0.597	214	0.317			
30	0.713	1.65	76.5	4.20		2,986	-0.503	183	0.344			
31	0.788	1.61	76.0	4.71	58	2,408	-0.407	192	0.328			
34	0.707	1.79	75.8	4.23	58	2,679	-0.572	216	0.322			
35	0.743	1.69	75.9	4.33		2,554	-0.461	194	0.337			
37	0.790	1.54	76.3	3.75	56	2,919	-0.371	208	0.320	3.11	5.52	-29.4
39	0.713	1.66	76.3	4.51	53	2,380	-0.430	200	0.327			
41	0.793	1.61	76.3	4.48	56	2,341	-0.406	198	0.333			
42	0.742	1.75	72.3	4.60		2,833	-1.046	209	0.333			
43	0.684	1.59	76.3	4.59	38	2,579	-0.514	217	0.329			
44	0.768	1.62	76.2	4.24	58	2,509	-0.424	201	0.319			
45	0.695	1.64	75.7	5.43		2,932	-0.472	230	0.312			
47	0.859	1.75	75.9	4.82		2,220	-0.487	204	0.340			
48	0.700	1.65	76.1	4.38	56	2,623	-0.593	224	0.320			
49	0.728	1.63	76.0	4.80	70	2,605	-0.624	215	0.330			
51	0.682	1.58	75.8	4.25	55	2,700	-0.619	215	0.331			
52	0.794	1.67	76.1	4.25	58	2,219	-0.416	188	0.328			
53	0.699	1.61	76.7	4.56		2,828	-0.701	196	0.333			
56	0.705	1.65	76.1	4.36	56	2,766	-0.571	224	0.329			
57	0.860	1.61	76.2	4.75		2,206	-0.564	209	0.338	1.68	4.21	
58	0.718	1.61	76.1	4.45	56	2,521	-0.603	202	0.332			
59	0.775	1.55	76.1	4.86	58	3,320	-0.660	222	0.322			
62	0.720	1.65	76.0	4.74	58	2,378	-0.567	223	0.329			
64	0.698	1.62	76.8	4.58		2,572	-0.689	202	0.322			
65	0.769	1.73	75.6	4.91		2,038	-0.580	203	0.322			
66	0.700	1.59	76.0	4.83	58	2,452	-0.501	218	0.317			
69	0.748	1.61	76.1	4.11	56	2,780	-0.563	204	0.326	2.29	4.16	-29.3
70	0.720	1.68	75.9	3.82		2,447	-0.405	196	0.328			
71	0.722	1.66	76.6	4.07		2,617	-0.515	198	0.338			
73	0.707	1.59	76.1	3.63		2,977	-0.497	158	0.352			
74	0.779	1.60	76.4	3.99	58	2,609	-0.407	196	0.328			
76	0.735	1.59	75.9	3.54	54	1,759	-0.316	208	0.329			
77	0.755	1.75	75.9	6.01	86	3,355	-0.827	223	0.305			
78	0.720	1.61	76.1	4.51	58	2,521	-0.605	207	0.335			
81	0.720	1.57	76.0	4.53	56	2,472	-0.607	201	0.331			
85	0.730	1.65	75.6	3.57	54	1,722	-0.424	204	0.326			
87	0.713	1.58	76.1	3.90	58	2,450	-0.426	185	0.332			
89	0.713	1.58	76.5	4.71	60	2,478	-0.667	208	0.323			
90	0.710	1.61	75.7	5.02	58	2,323	-0.511	208	0.323			
93	0.745	1.71	75.9	5.29	55	2,630	-0.496	215	0.335	1.77	4.70	-30.9
95	0.745	1.67	75.9	5.29	51	2,262	-0.508	209	0.345			
97	0.686	1.63	75.9	4.36	55	2,740	-0.618	224	0.328			
98	0.690	1.58	76.0	4.41	55	2,840	-0.622	224	0.326			
99	0.699	1.59	76.0	4.21	58	2,385	-0.598	211	0.318			
Average	0.7311	1.6380	76.0	4.5054	57.1460	2,599.20	-0.5419	207.13	0.3264	2.043	4.61	
Std. Dev.	0.0453	0.0661	0.5177	0.4429	5.7431	328.14	0.1234	12.47	0.0089	0.573	0.49	
Coef. of Var.	6.192	4.037	0.681	9.830	10.050	12.625	22.766	6.020	2.716	28.031	10.67	

COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A

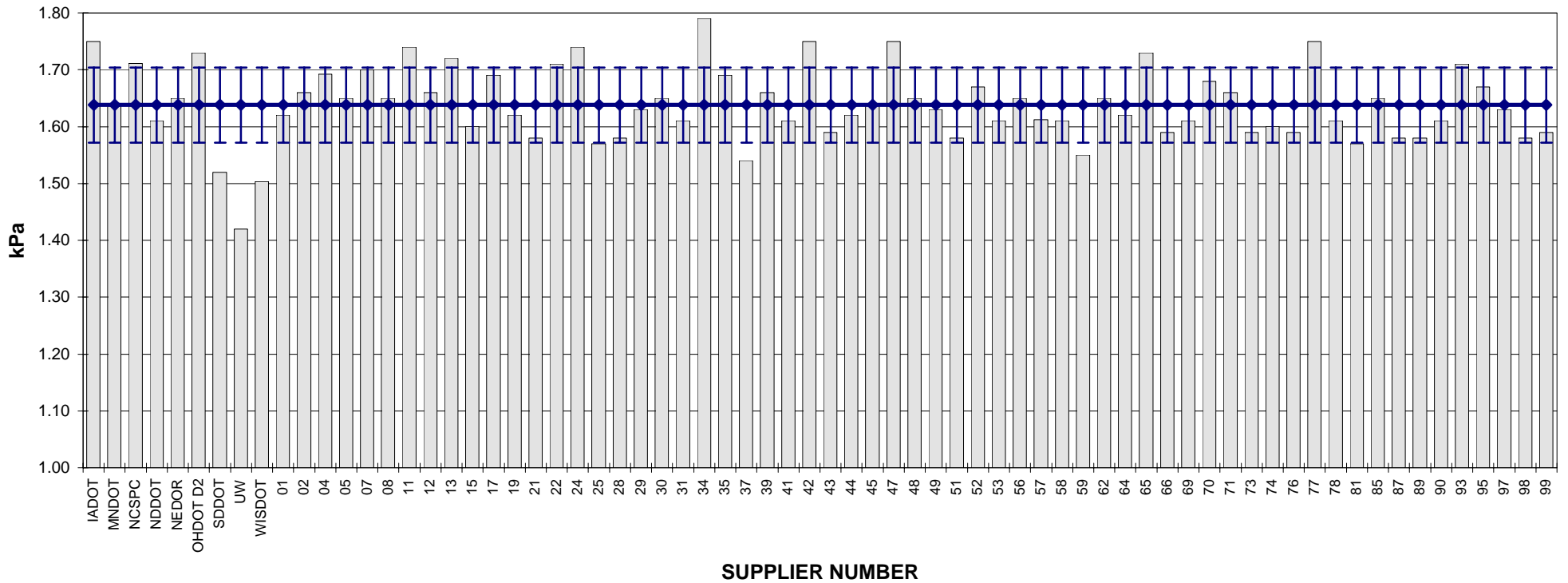
PG 64-28P

ROTATIONAL VISCOSITY



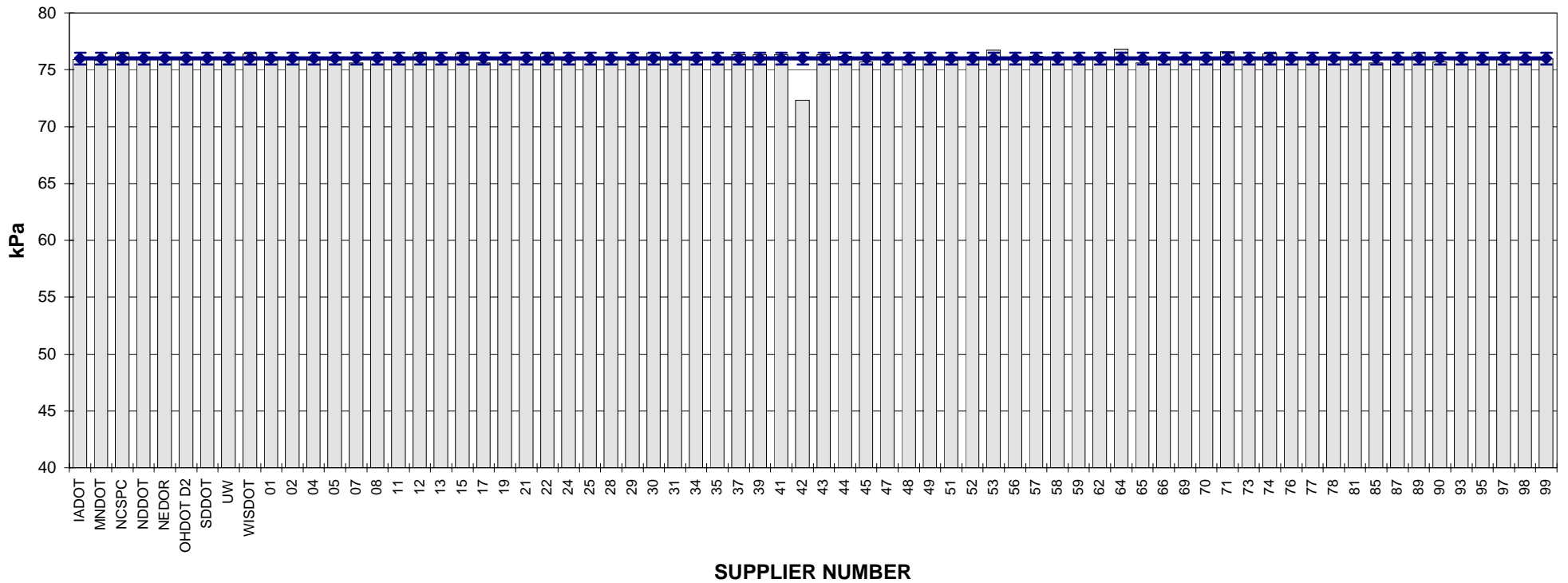
**COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P**

DSR - ORIGINAL



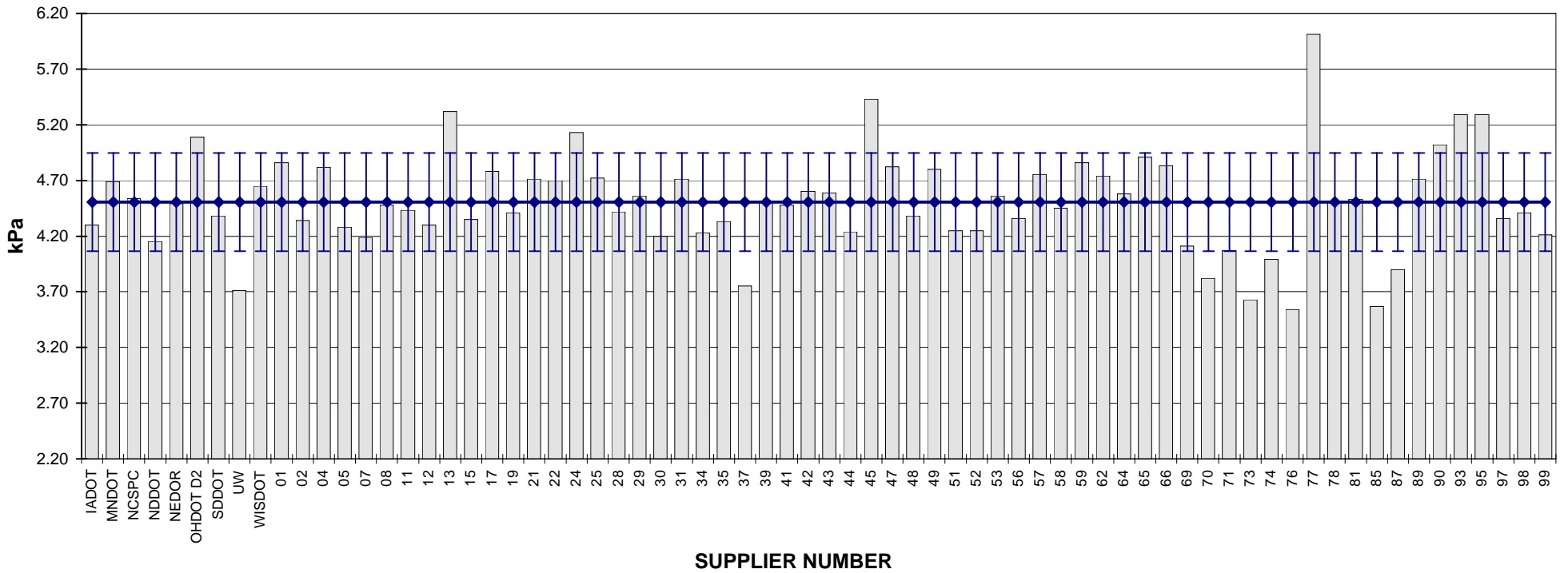
COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P

DSR - PHASE ANGLE



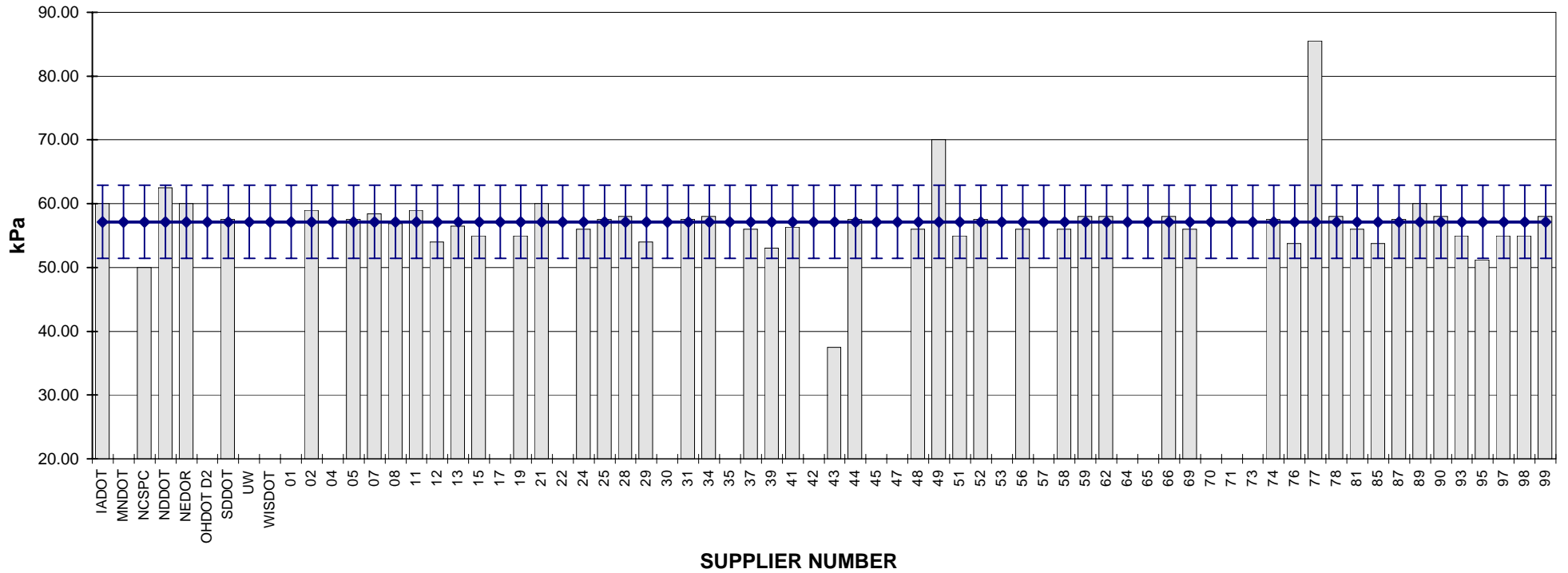
**COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P**

DSR - RTFO

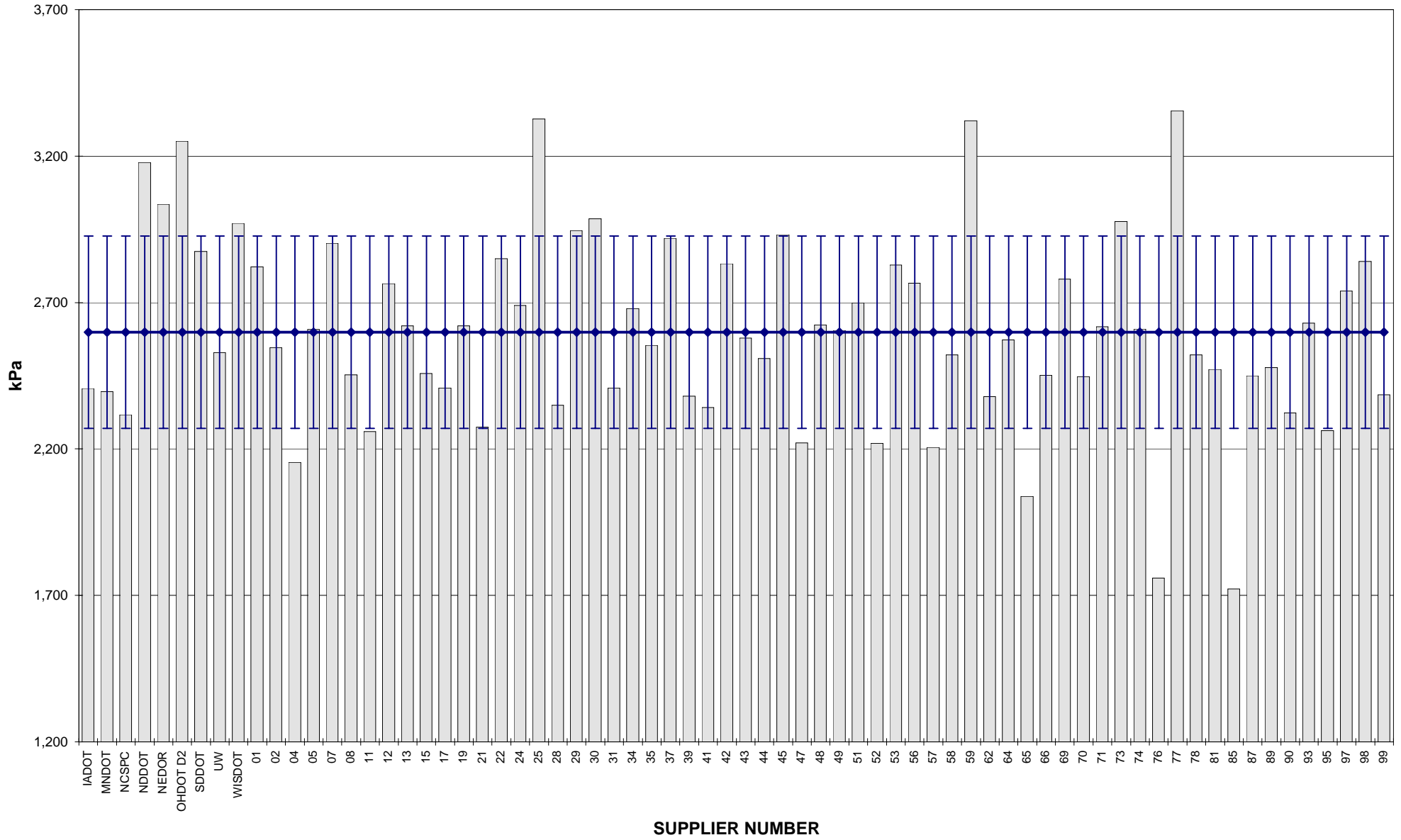


COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P

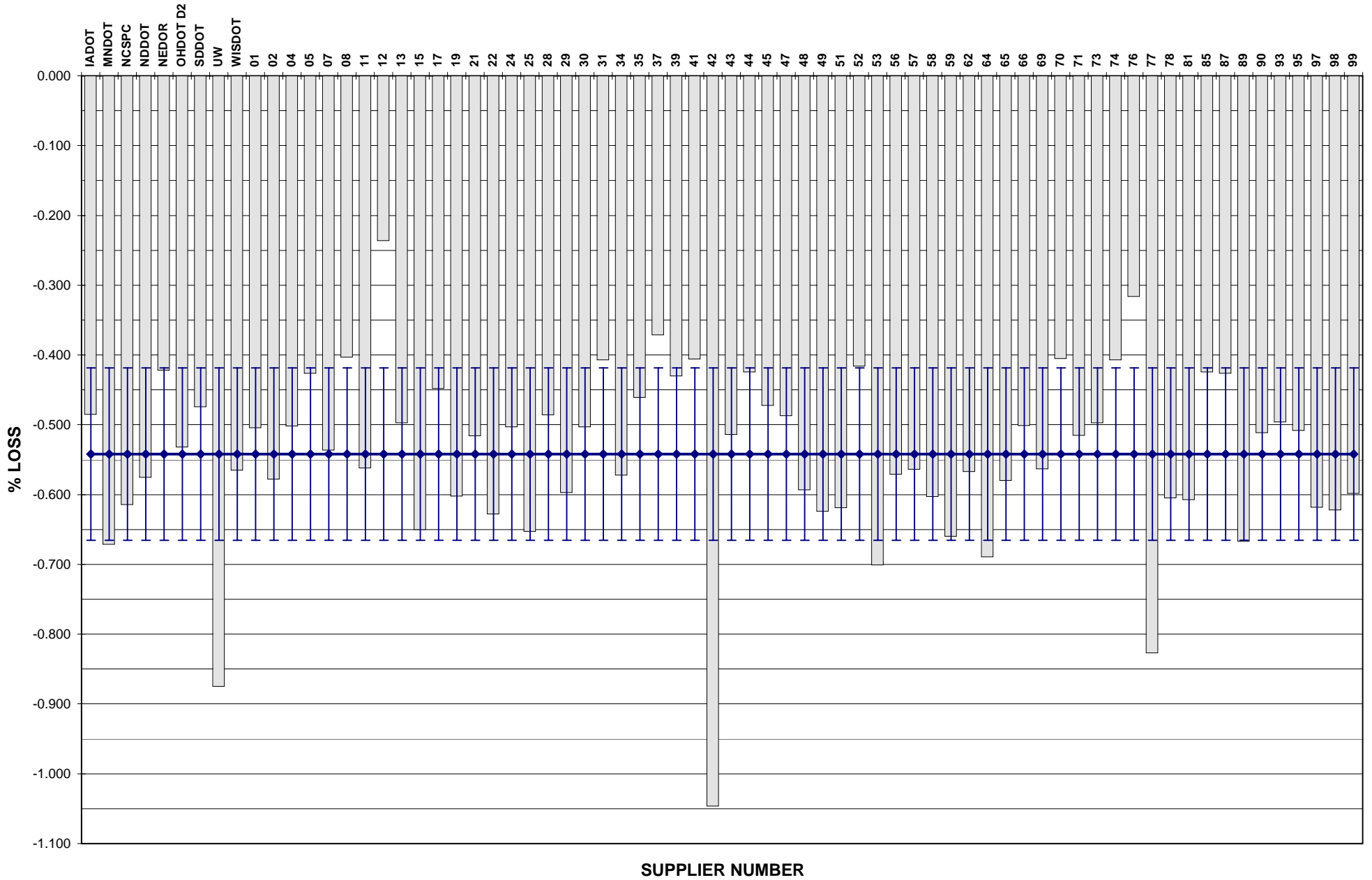
ELASTIC RECOVERY



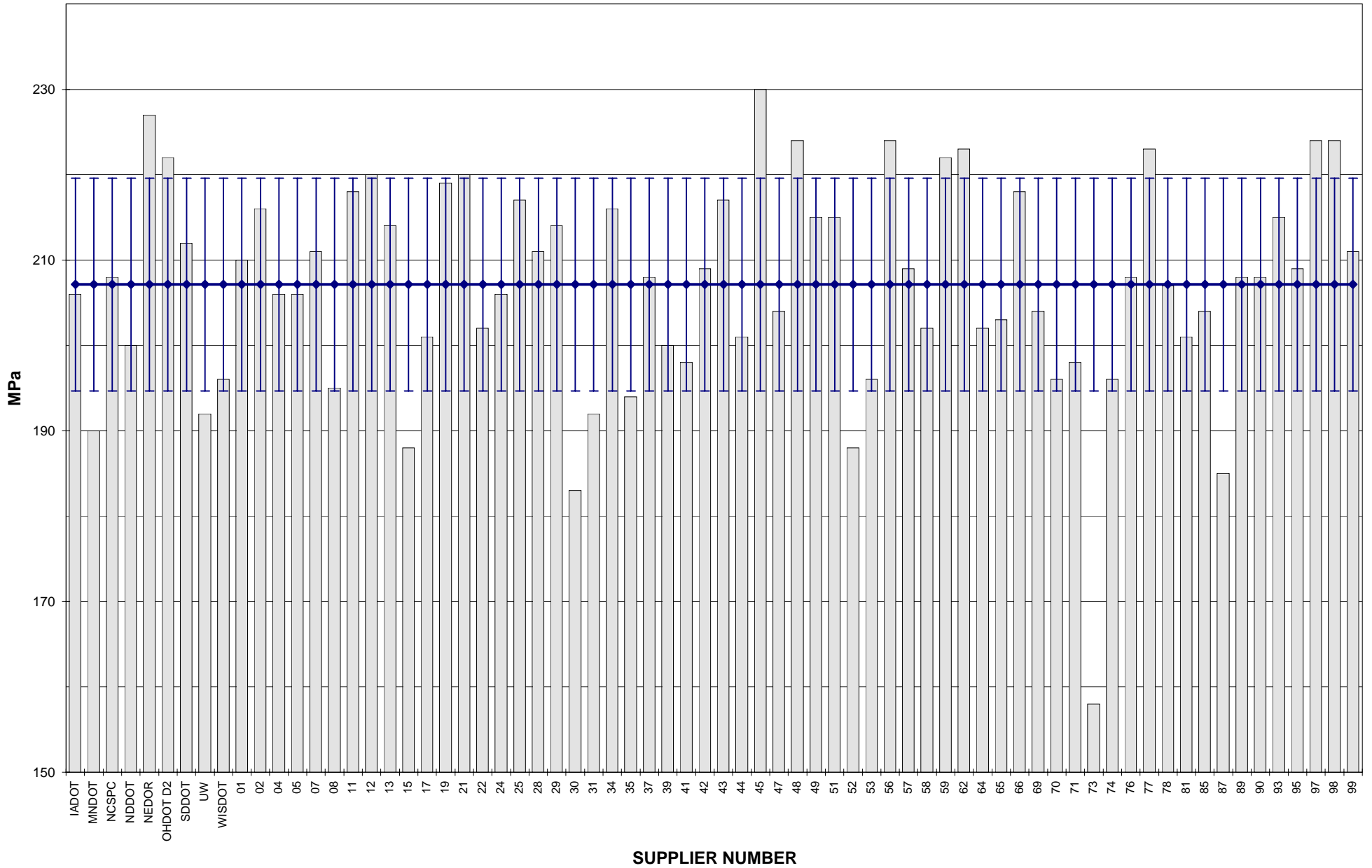
**COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P
DSR - PAV**



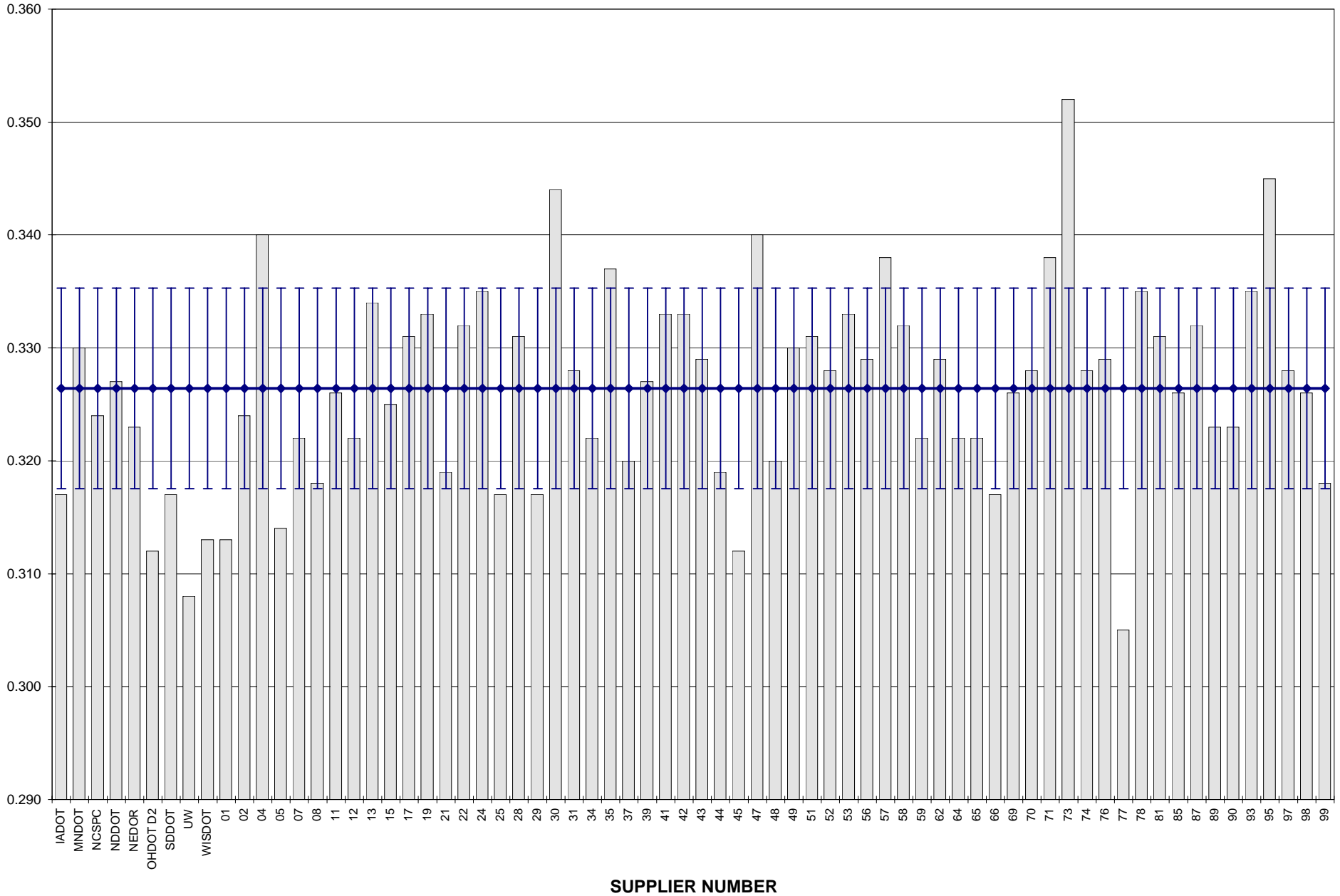
COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P
RTFO MASS LOSS



COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P
BBR STIFFNESS



COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A
PG 64-28P
BBR m-VALUE



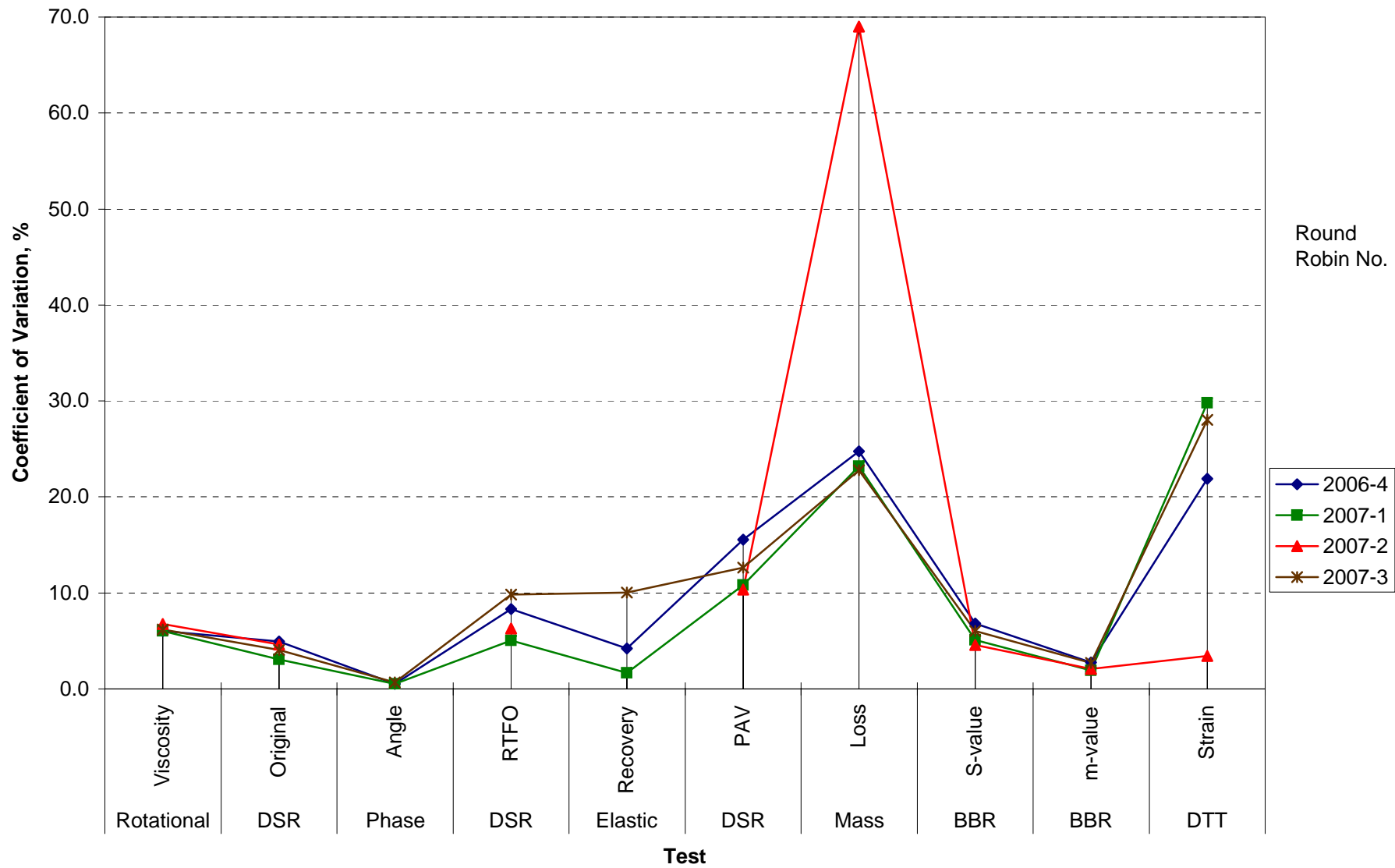
**COMBINED STATE BINDER GROUP ROUND ROBIN 2007-3
SUMMARY A**

COEFFICIENT OF VARIATION

Round Robin No.	Number of Participants	Coefficient of Variation, %									
		Rotational Viscosity	DSR Original	Phase Angle	DSR RTFO	Elastic Recovery	DSR PAV	Mass Loss	BBR S-value	BBR m-value	DTT Strain
2006-4	74	6.040	4.957	0.523	8.340	4.201	15.562	24.755	6.799	2.734	21.909
2007-1	79	6.037	3.046	0.503	5.070	1.642	10.808	23.197	5.096	1.905	29.782
2007-2	69	6.750	4.649		6.297		10.361	69.032	4.551	2.072	3.449
2007-3	70	6.192	4.037	0.681	9.830	10.050	12.625	22.766	6.020	2.716	28.031

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COEFFICIENT OF VARIATION



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STATISTICS WITH OUTLIERS REMOVED:

	Rotational Viscosity (Pa.s) @135°C	DSR Original (kPa) @64°C	Phase Angle	DSR RTFO (kPa) @64°C	Elastic Recovery (%)	DSR PAV (kPa) @22°C	Mass Loss (%) @163°C	BBR S-value (MPa) @-18°C	BBR m-value @-18°C
Average	0.7277	1.6411	76.0449	4.4836	56.6872	2,599.20	-0.5296	207.84	0.3264
Std. Dev.	0.0315	0.0611	0.2621	0.4065	2.3365	328.14	0.1004	11.04	0.0089
Coef. of Var.	4.324	3.721	0.345	9.066	4.122	12.625	18.950	5.310	2.716