



# Test Monitoring Center

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MEMORANDUM: 00-178

DATE: November 29, 2000  
TO: Sequence V Surveillance Panel

FROM: Richard E. Grundza

SUBJECT: Updated Statistics for Sequence VG LTMS Charting

Test targets for reference oil 925-3, based on four operationally valid test results, are listed in Table 1. The means are the arithmetic average of these results. The standard deviations are not pooled or otherwise weighted. These targets are effective for reference oil tests completing on or after November 16, 2000. Where severity adjustments were in effect, test results were corrected by the application of severity adjustments.

Table 1

Parameter	Mean	Standard Deviation
AES	6.44	0.83
RACS	7.60	0.36
AEV	8.52	0.29
APV	7.39	0.41
OSCRNSLG (ln(result+1))	3.992	1.018
NHSCMPRG	0	0

Figures 1 through 5 plot the results by laboratory and the Shewhart acceptance ranges for AES, RAC, AEV, APV, and OSCRNLSG, respectively, in reported units for both oils.

When charting these tests, it was observed that some of the early AEV targets were not updated to reflect the three part average, while the TMC data base was updated to reflect AEV values calculated using three parts. Table 2 lists the updated AEV means and standard deviations to be used for control chart calculations

Table 2

Oil	Effective Dates		Mean	S
1006	19990601	19991115	9.25	0.13
1006	19991116	20000524	9.27	0.12
1006	20000525	20001116	9.26	0.11
1006	20001117	-	9.27	0.09
1007	19990601	19991115	9.29	0.10
1007	19991116	20001116	9.24	0.09

1007	20001117	-	9.24	0.09
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Memo 00-178  
Page 2

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c: FMF

JLZ

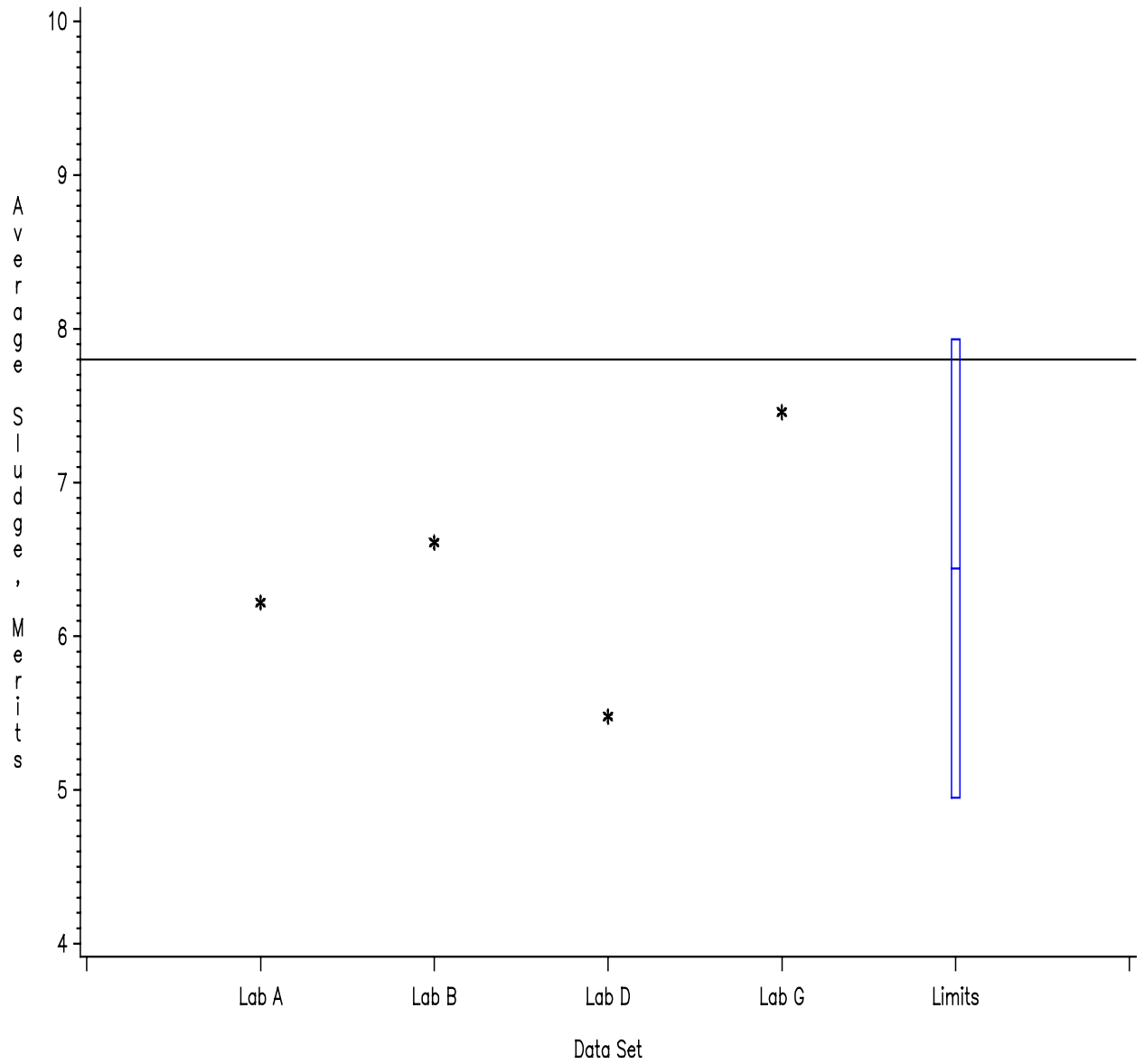
Sequence VE Test Engineers

<ftp://www.tmc.astm.cmri.cmu.edu/docs/gas/sequencev/memos/mem00-178>



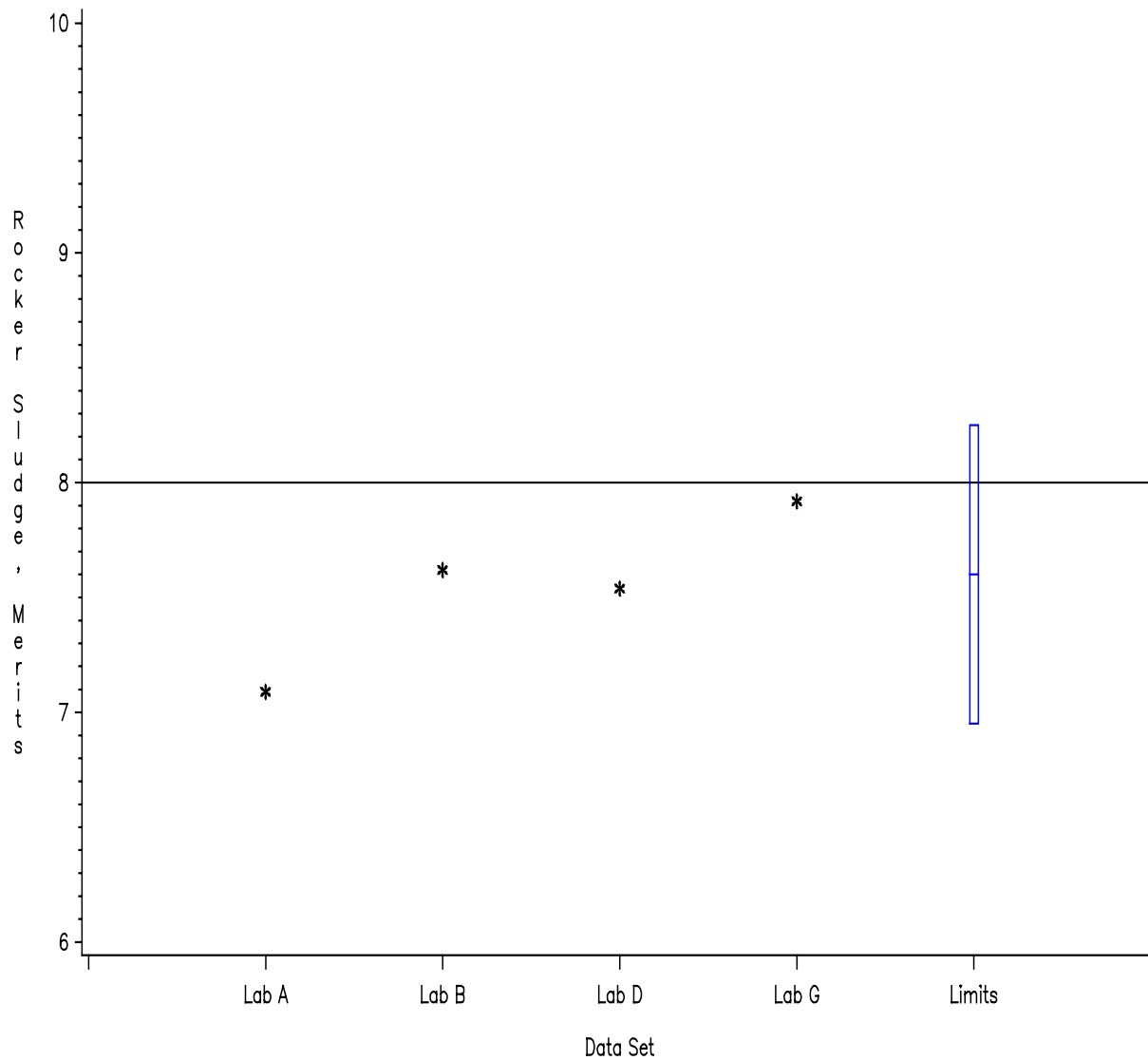
FIGURE 1

SEQUENCE VG  
TARGET DATA SET AND SHEWHART LIMITS  
AVERAGE ENGINE SLUDGE, 925-3



REFERENCE LINE IS THE GF-3 PASS LIMIT  
Lab results are uncorrected, Targets calculated using corrected results

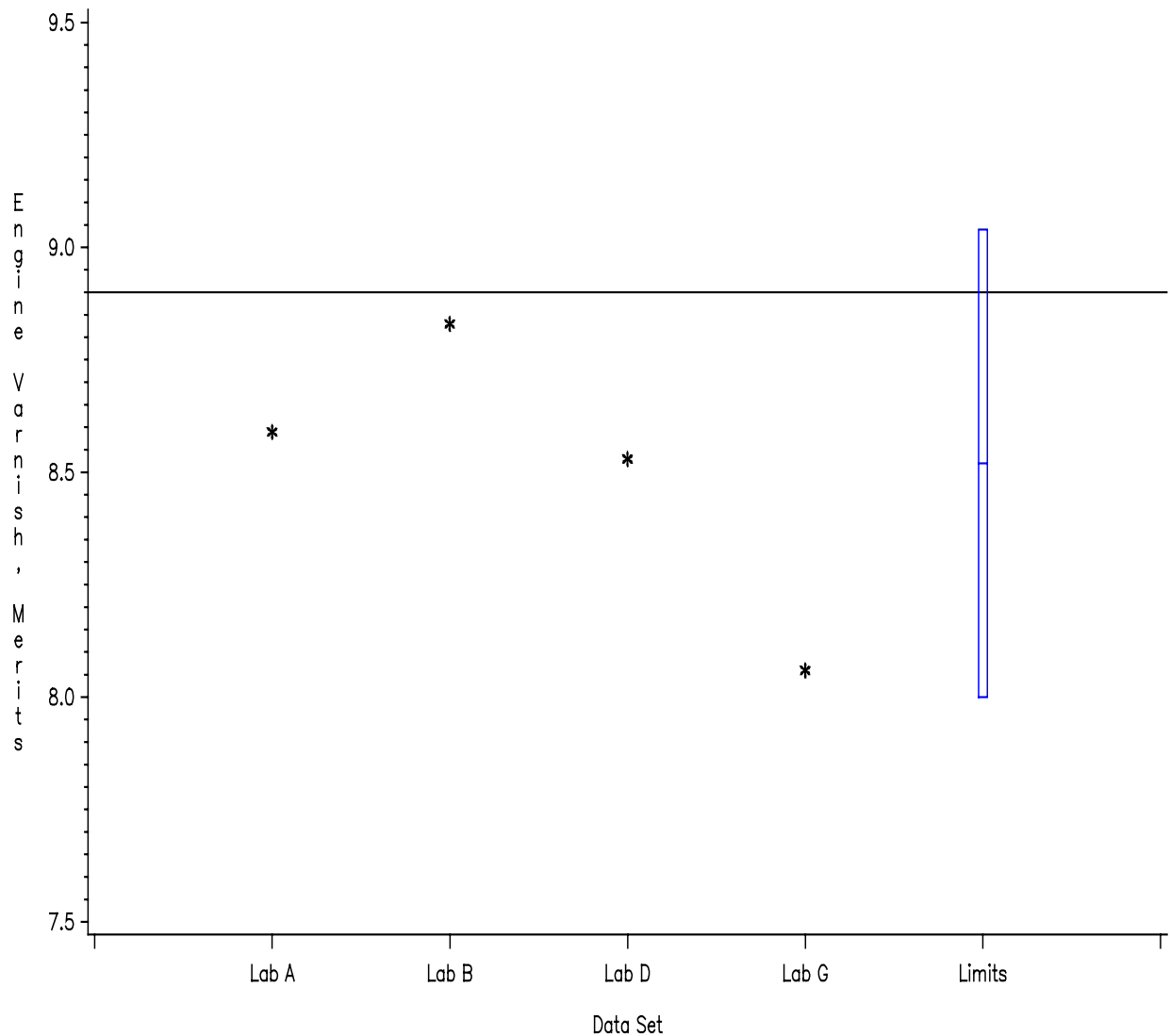
SEQUENCE VG  
TARGET DATA SET AND SHEWHART LIMITS  
ROCKER COVER SLUDGE, 925-3



REFERENCE LINE IS THE GF-3 PASS LIMIT  
Lab results are unadjusted, targets generated using adjusted results

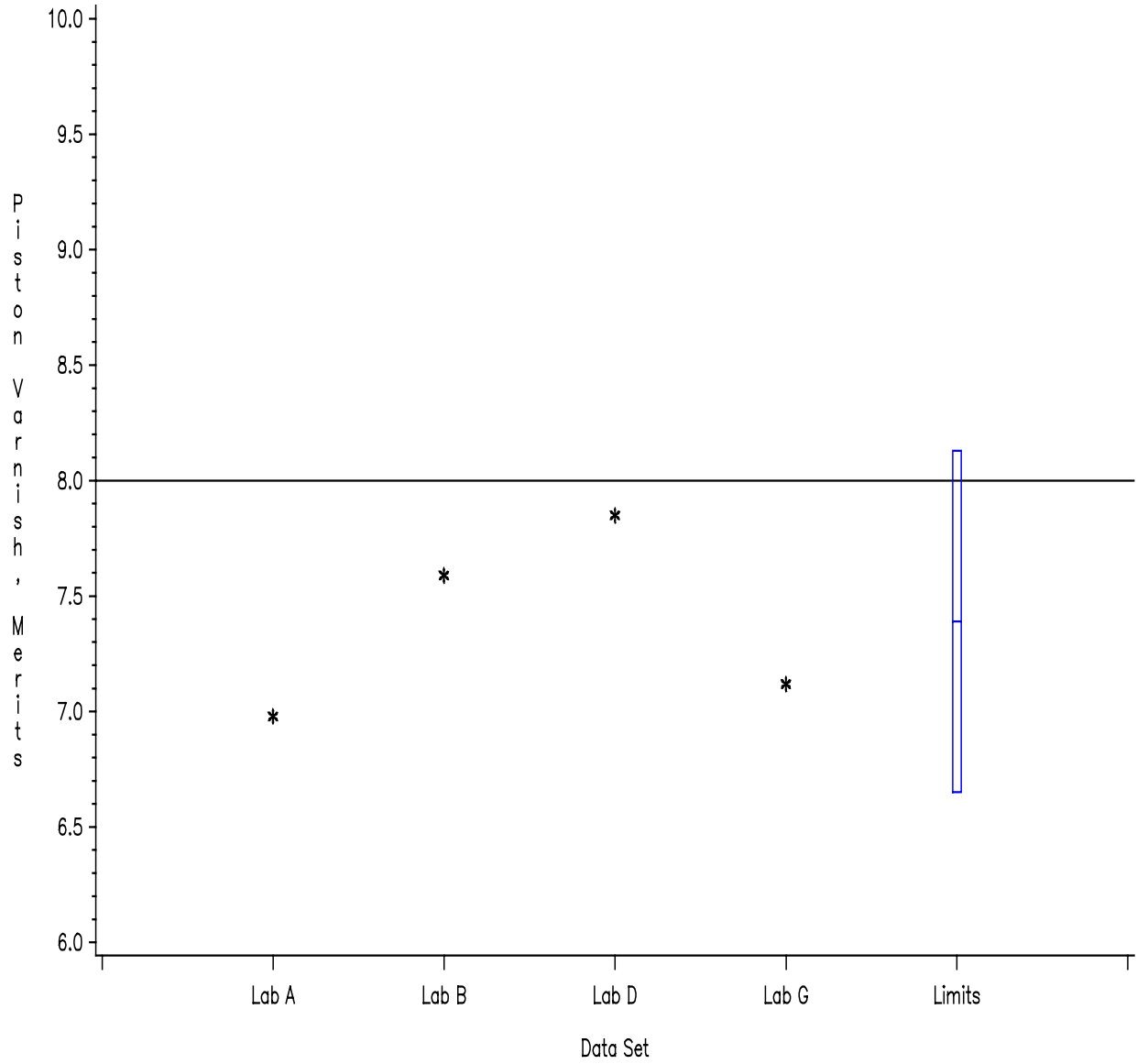


SEQUENCE VG  
TARGET DATA SET AND SHEWHART LIMITS  
AVERAGE ENGINE VARNISH, 925-3



REFERENCE LINE IS THE GF-3 PASS LIMIT  
Lab results are unadjusted, targets generated using adjusted results

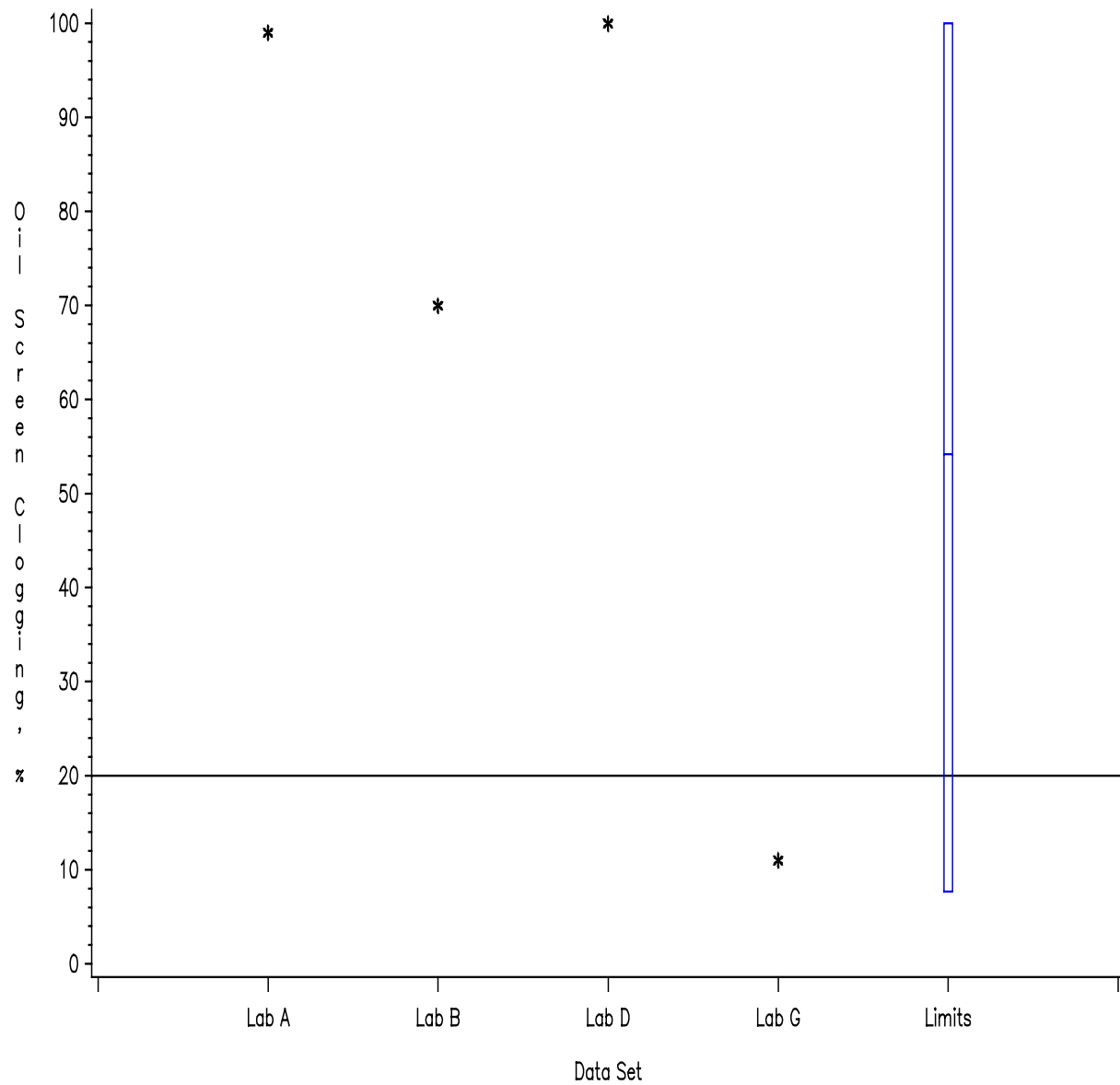
SEQUENCE VG  
TARGET DATA SET AND SHEWHART LIMITS  
AVERAGE PISTON SKIRT VARNISH, 925-3



REFERENCE LINE IS THE GF-3 PASS LIMIT  
Lab results are unadjusted, targets generated using adjusted results



SEQUENCE VG  
TARGET DATA SET AND SHEWHART LIMITS  
OIL SCREEN CLOGGING, 925-3



REFERENCE LINE IS THE GF-3 PASS LIMIT  
Lab results are unadjusted, targets generated using adjusted results