



Test Monitoring Center

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

MEMORANDUM: 02-003

DATE: January 17, 2002

TO: Sequence IIIF Surveillance Panel

FROM: Michael T. Kasimirsky *Michael T. Kasimirsky*

SUBJECT: Reference Oil 1006-2 Initial Test Targets

At the November 15, 2001 meeting of the Sequence IIIF Surveillance Panel, the panel approved a plan to run a series of five simultaneous reference oil tests on reference oil 1006-2 for the purposes of both stand calibration and test target generation. The final targets for the original blend of reference oil 1006 are shown below:

<i>Final Reference Oil 1006 Test Targets</i>		
<i>Parameter</i>	<i>Mean</i>	<i>Standard Deviation</i>
PVIS	0.0167362	0.0086503
APV	9.23	0.213
WPD	3.32	0.327
PV60	5.41732	0.230855

The initial targets for reference oil 1006-2, based on the five data points from the matrix, are shown below:

<i>Initial Reference Oil 1006-2 Test Targets</i>		
<i>Parameter</i>	<i>Mean</i>	<i>Standard Deviation</i>
PVIS	0.0496678	0.0090039
APV	9.35	0.283
WPD	4.18	0.417
PV60	5.30933	0.168340

Any applicable severity adjustments were applied to the data prior to target generation. Future updates to the targets will also be severity adjusted according to past practice. The Surveillance Panel has approved a plan to update these targets when the TMC has 10, 20, and 30 data points on this reference oil.

These targets, along with the targets for reference oil 1006-2 and the individual data points, are displayed graphically in the seven attached plots. The first two plots show Percent Viscosity Increase at 80 hours, in transformed and reported units respectively, along with the original 1006 targets for comparison purposes. The third plot is a duplicate of the second plot, with the original 1006 targets removed, to allow the data to be shown on an expanded axis. The fourth shows Weighted Piston Deposits in reported units and the fifth shows Average Piston Varnish in reported units. The sixth and seventh plots show Percent Viscosity Increase at 60 hours (the IIIF-HD parameter) in transformed and reported units, respectively. On the last page are two tables showing the individual reference oil test results used in generation of these targets. The first table is the raw, unadjusted data and the second table is the

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severity adjusted data used to calculate the test targets. These new targets are effective for all tests completed on or after January 9, 2002.

MTK/mtk

Attachments

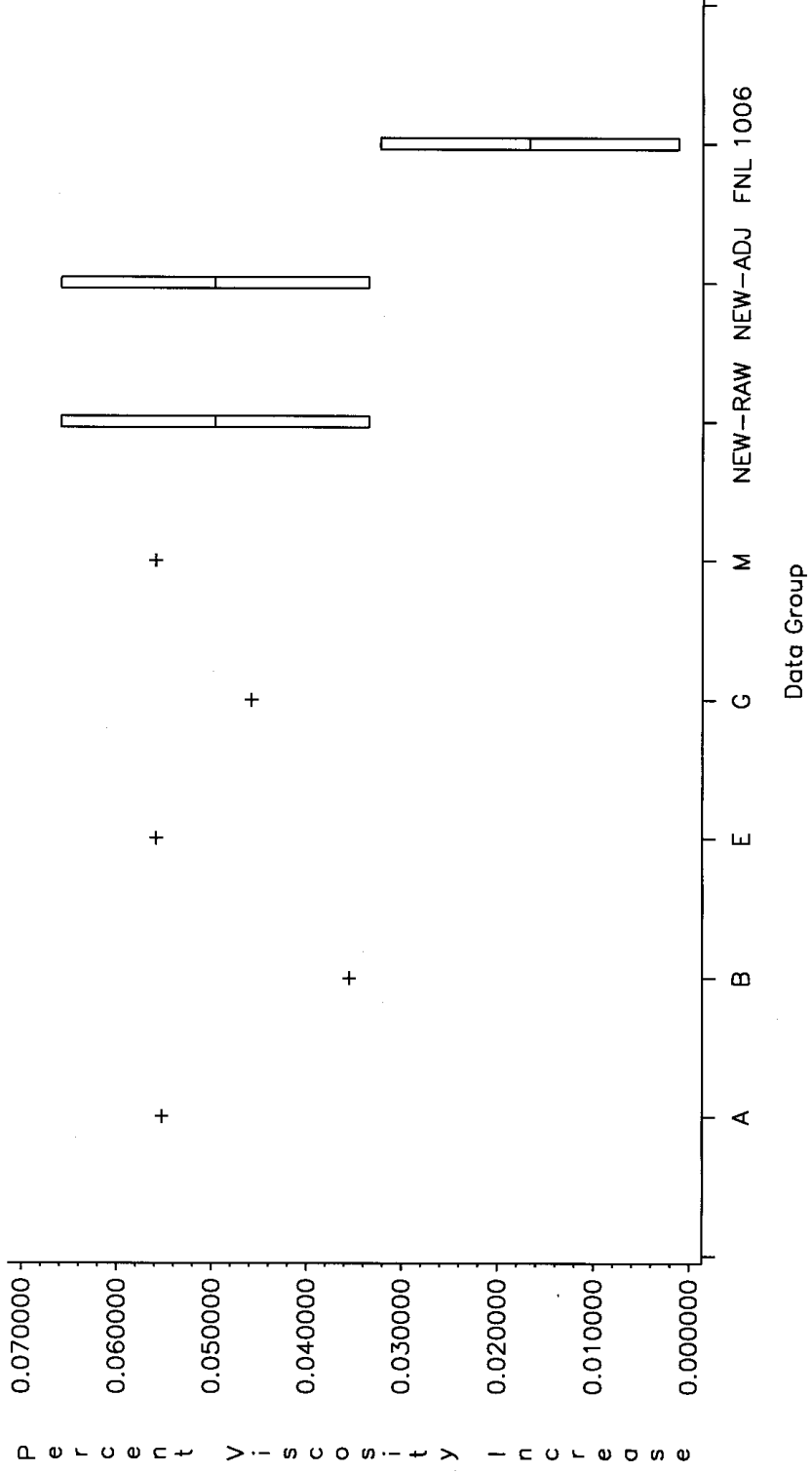
c: John L. Zalar, TMC

<ftp://www.tmc.astm.cmri.cmu.edu/docs/gas/sequenceiii/memos/mem02-003.pdf>

Distribution: email

Sequence IIF Reference Oil 1006-2 Test Target Data Set and Shewhart Bands

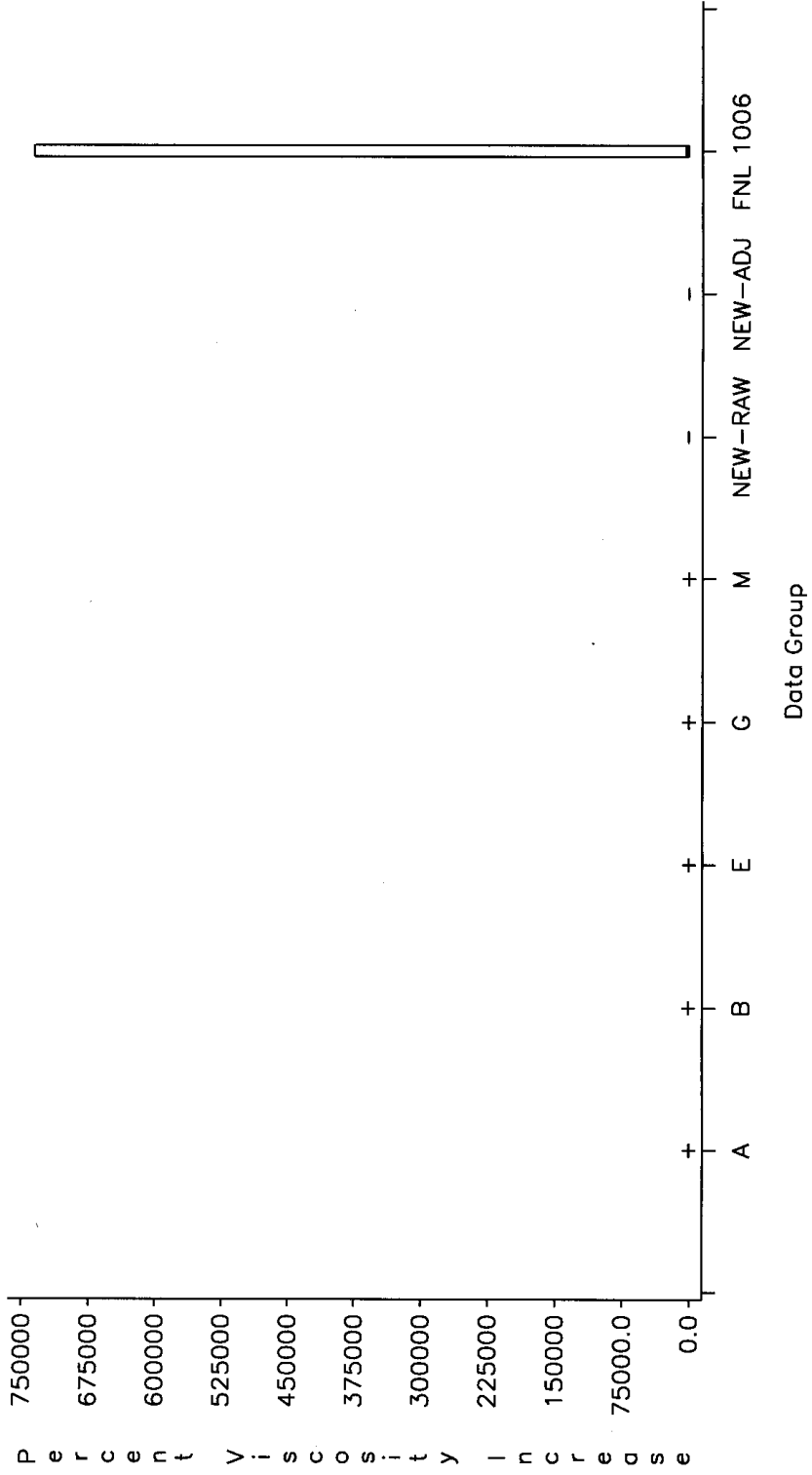
Percent Viscosity Increase, in transformed units



Sequence IIF Reference Oil 1006--2

Test Target Data Set and Shewhart Bands

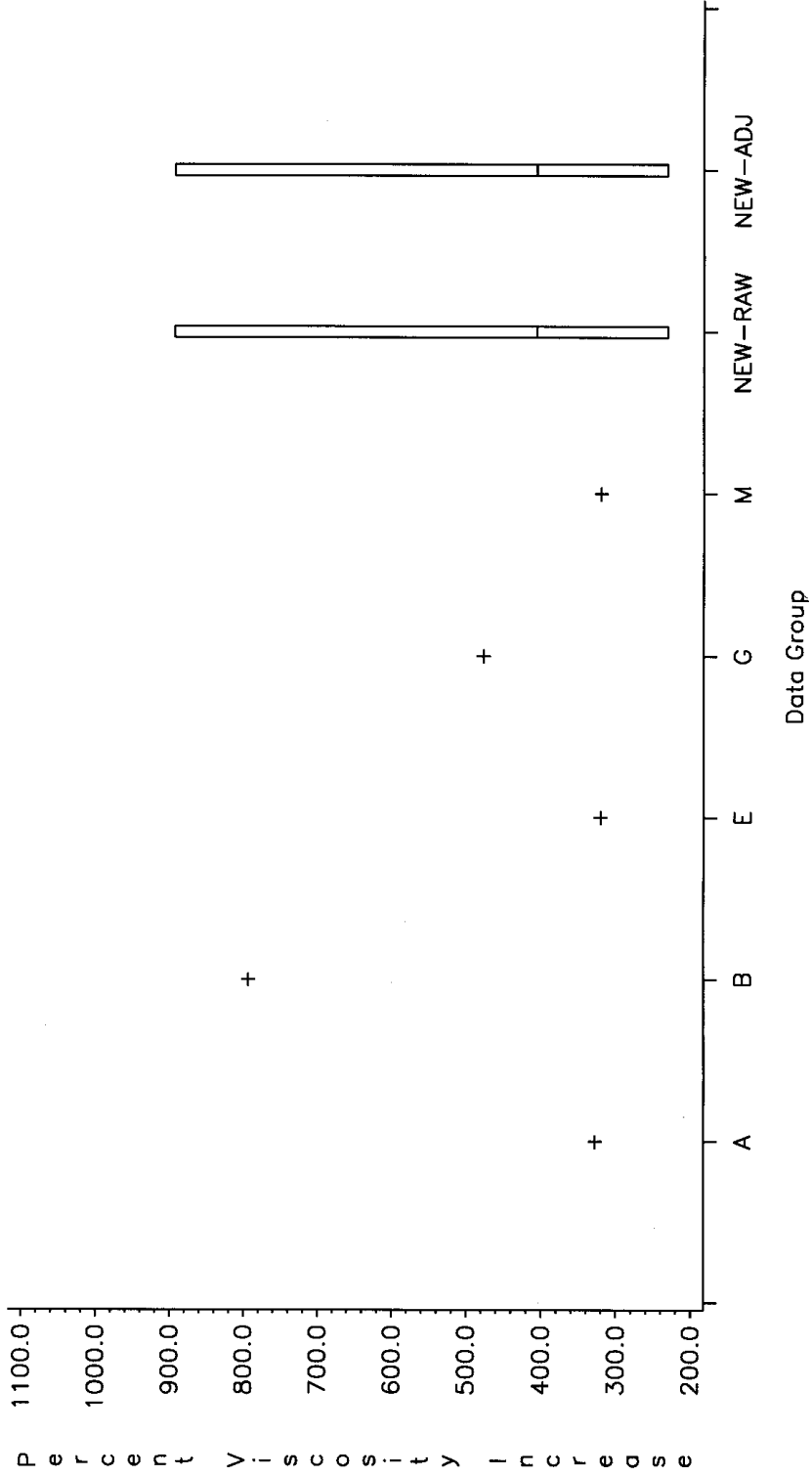
Percent Viscosity Increase, in original units



Sequence IIF Reference Oil 1006-2

Test Target Data Set and Shewhart Bands

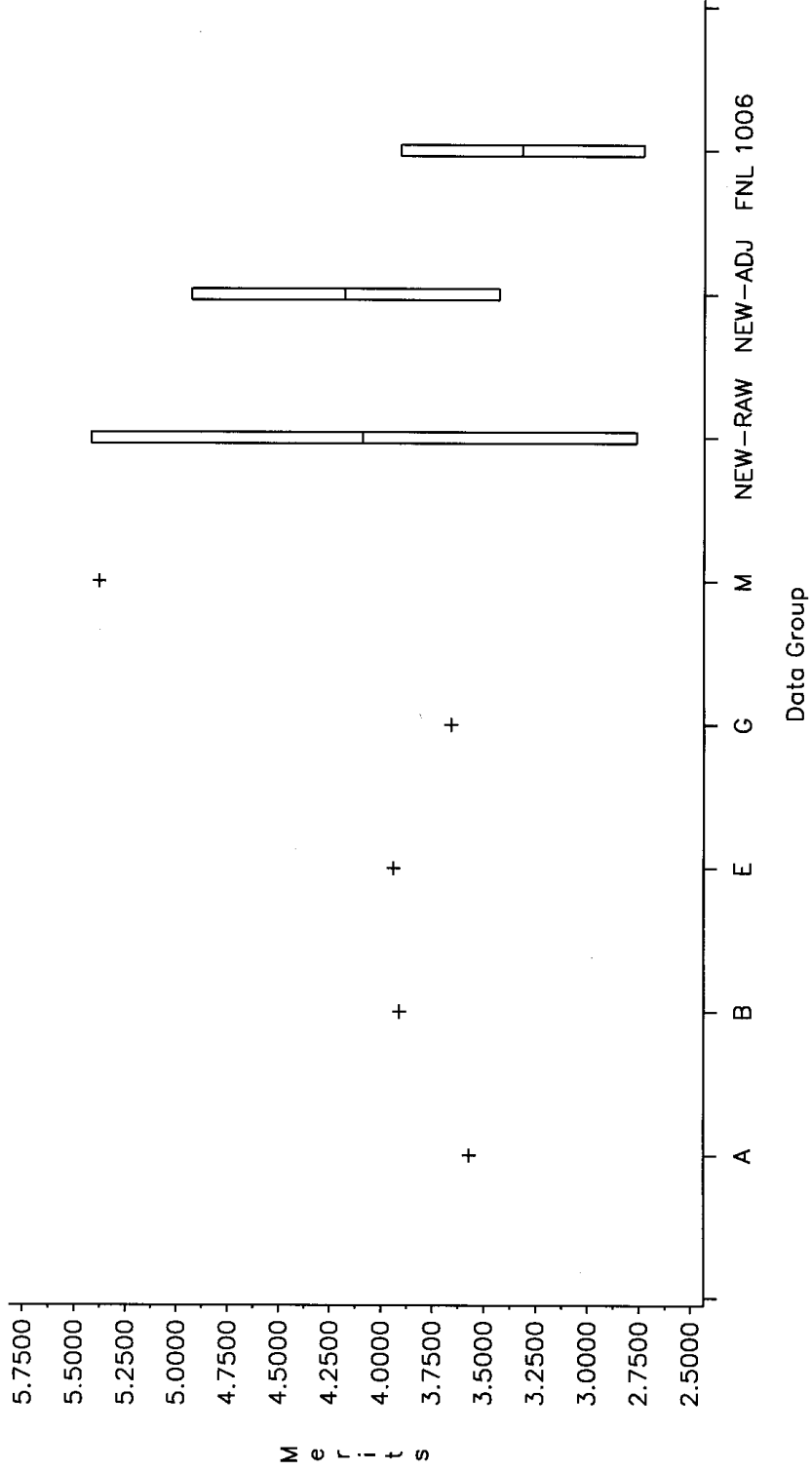
Percent Viscosity Increase, in original units



Sequence IIF Reference Oil 1006-2

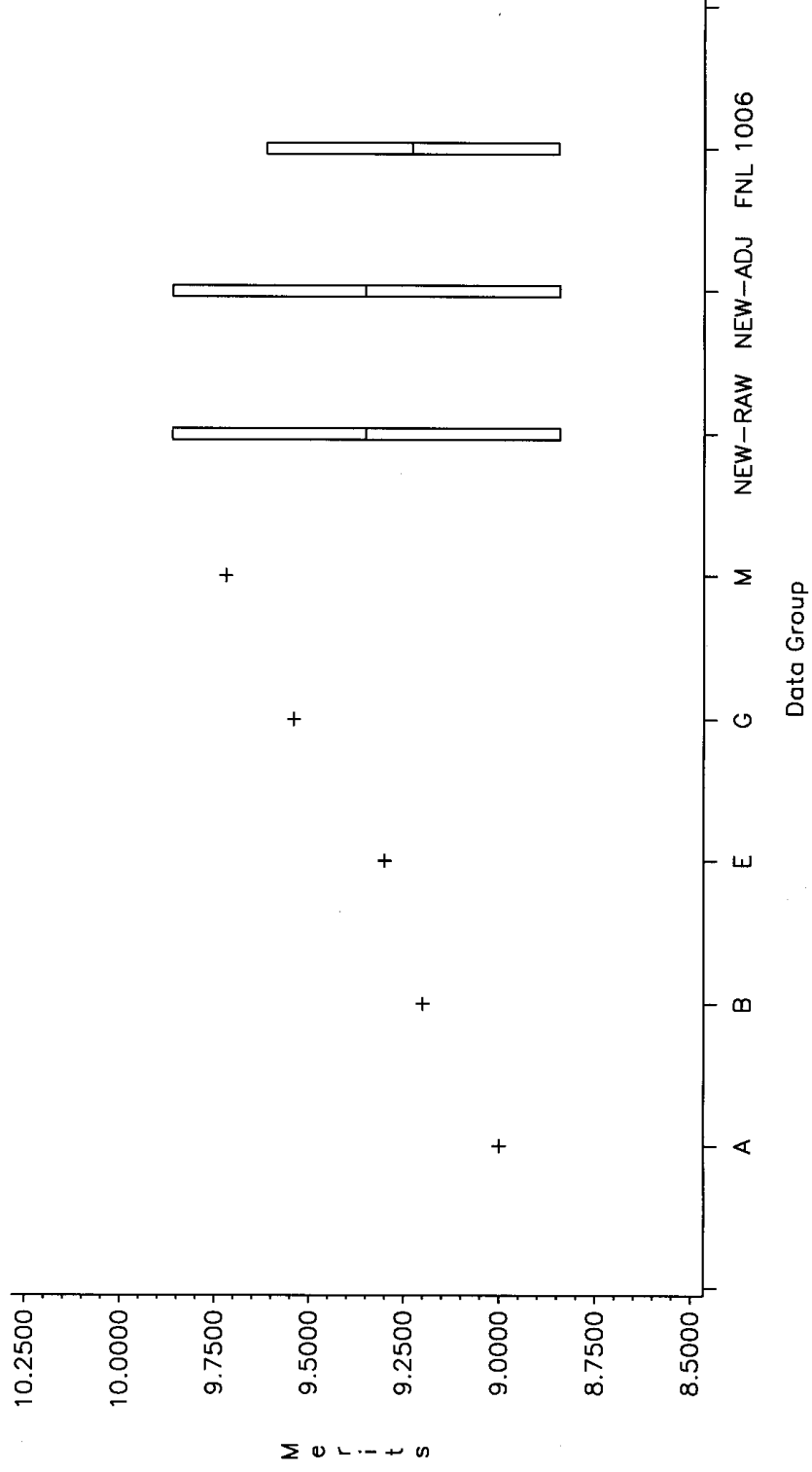
Test Target Data Set and Shewhart Bands

Weighted Piston Deposits, in reported units



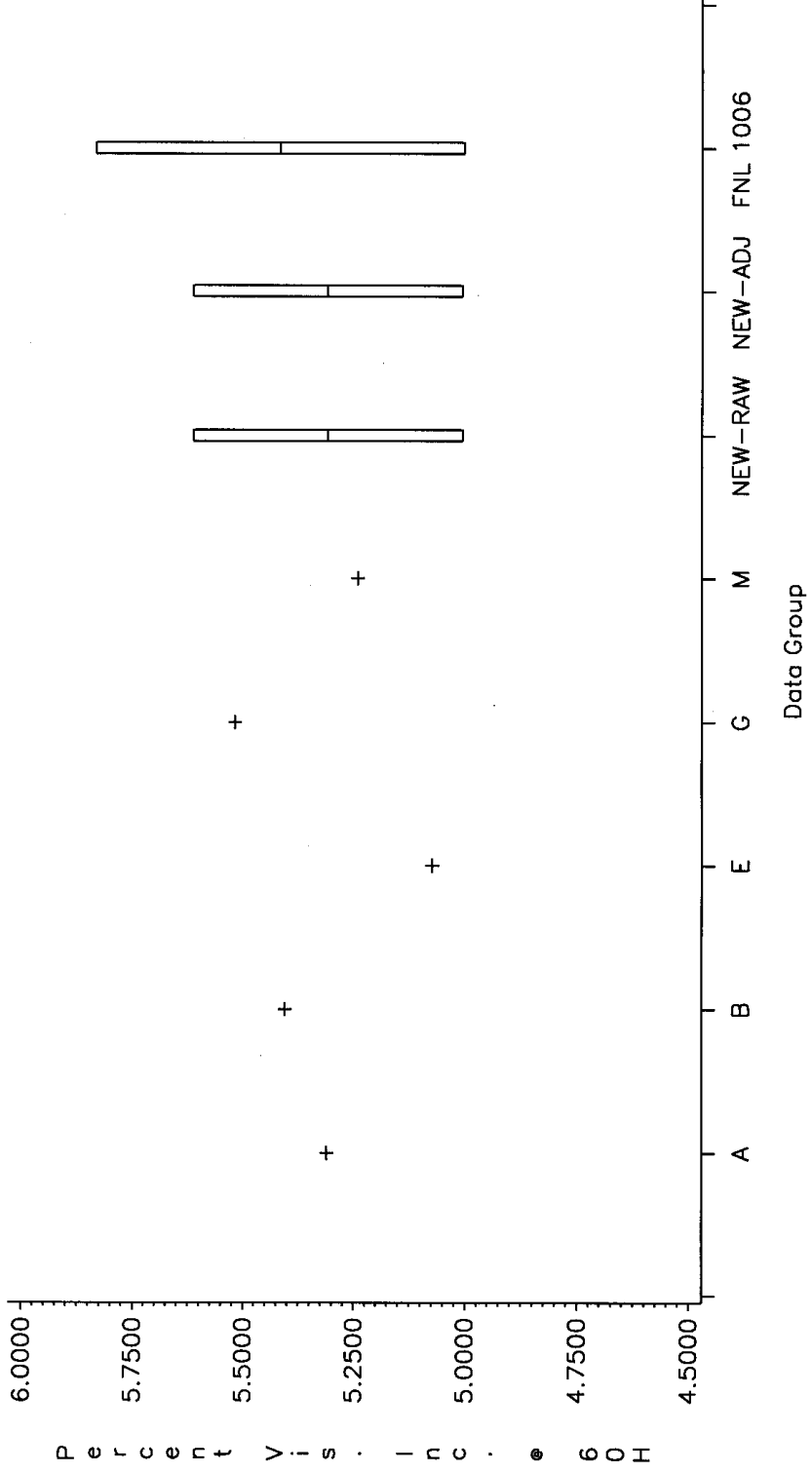
Sequence IIF Reference Oil 1006-2 Test Target Data Set and Shewhart Bands

Average Piston Varnish, in reported units



Sequence IIF Reference Oil 1006-2 Test Target Data Set and Shewhart Bands

Percent Viscosity Increase @ 60H, in transformed units



Sequence IIF Reference Oil 1006--2

Test Target Data Set and Shewhart Bands

Percent Viscosity Increase @ 60H, in original units

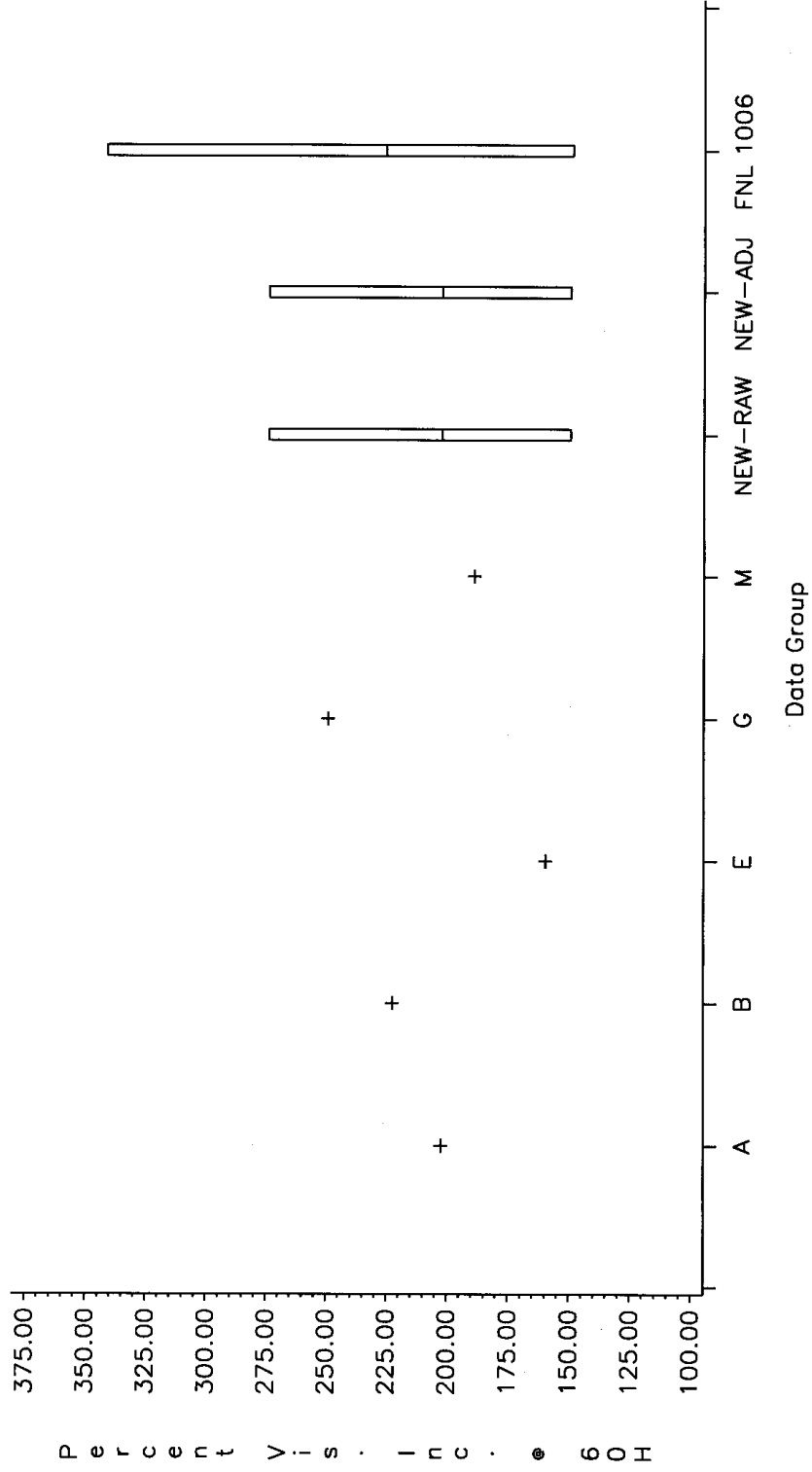


Table 1 – Unadjusted Reference Oil 1006-2 Data

OILCODE	LTMSLAB	LTMSAPP	IND	VAL	LTMSDATE	LTMSTIME	PVIS	PVISTI	APV	WPD	PV60	ACLW	SACLW	OILCON
42504	E	1	1006-2	AC	1/14/2002	1:47	320.5	0.055858	9.3	3.94	159.63	4.8	4.7	5.07
42507	G	3	1006-2	AC	1/12/2002	13:16	476.7	0.045801	9.54	3.66	249.16	11.4	11.7	5.87
42513	M	2	1006-2	OC	1/12/2002	2:31	319.7	0.055928	9.72	5.38	188.8	14.3	14.2	5.44
42500	B	1	1006-2	AC	1/12/2002	10:31	793.4	0.035502	9.2	3.91	222.5	13	13.2	5.65
42510	A	7	1006-2	AC	1/10/2002	21:31	327.6	0.055249	9	3.57	202.37	19.6	12.2	5.43

Table 2 – Severity Adjusted Reference Oil 1006-2 Data

OILCODE	LTMSLAB	LTMSAPP	IND	VAL	LTMSDATE	LTMSTIME	PVIS	PVISTI	APV	WPD	PV60	ACLW	SACLW	OILCON
42504	E	1	1006-2	AC	1/14/2002	1:47	320.5	0.055858	9.3	3.94	159.63	4.8	4.7	5.07
42507	G	3	1006-2	AC	1/12/2002	13:16	476.7	0.045801	9.54	4.11	249.16	11.4	11.7	5.87
42513	M	2	1006-2	OC	1/12/2002	2:31	319.7	0.055928	9.72	4.91	188.8	14.3	14.2	5.44
42500	B	1	1006-2	AC	1/12/2002	10:31	793.4	0.035502	9.2	3.91	222.5	13	13.2	5.65
42510	A	7	1006-2	AC	1/10/2002	21:31	327.6	0.055249	9	4.03	202.37	19.6	12.2	5.43