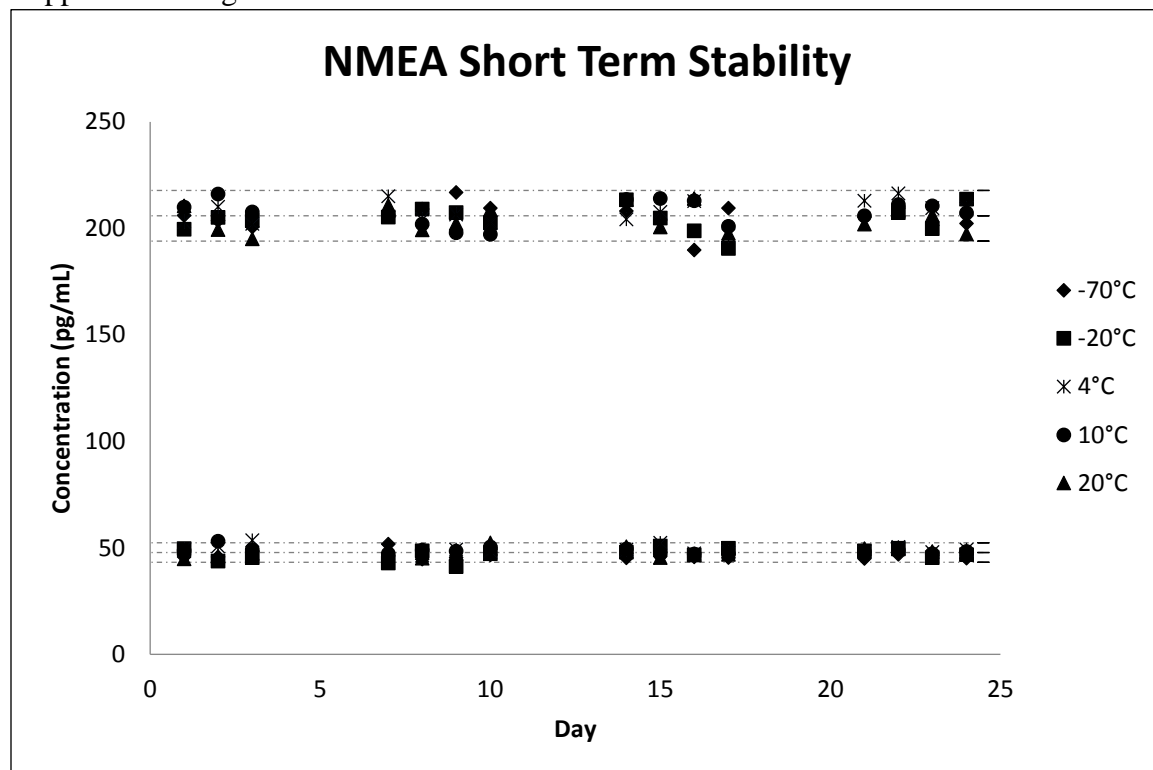
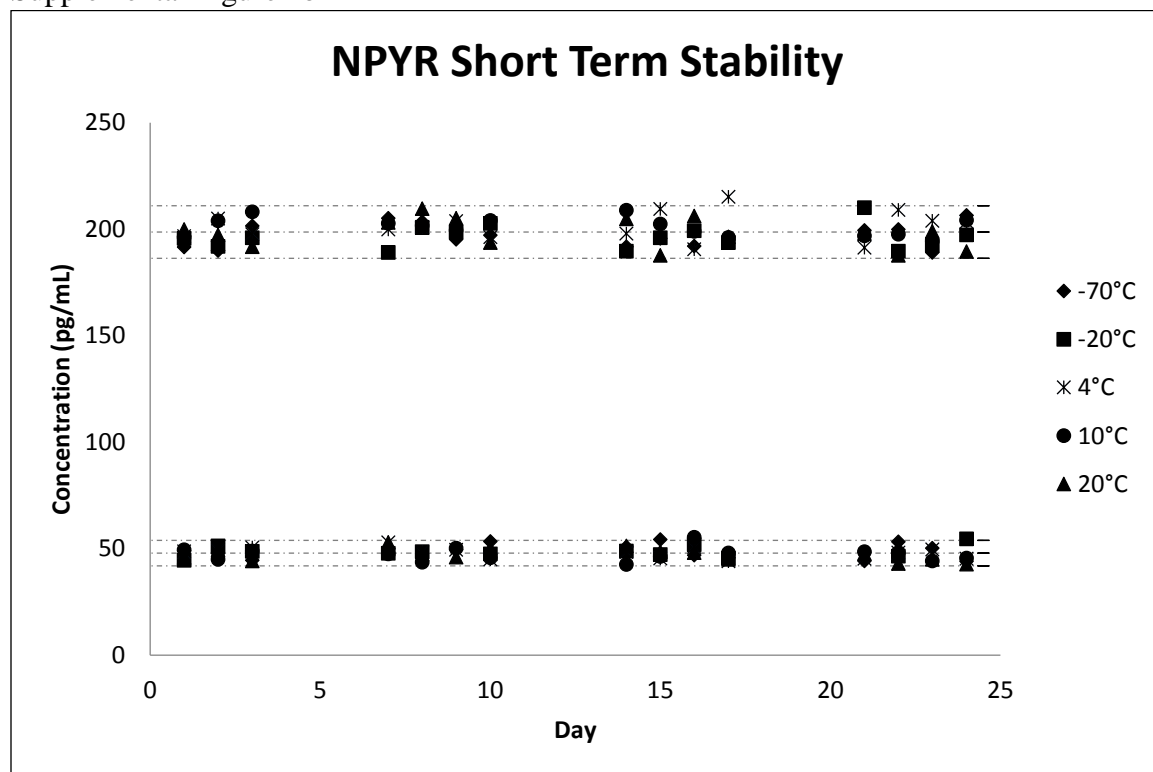


Supplemental Figure 1a



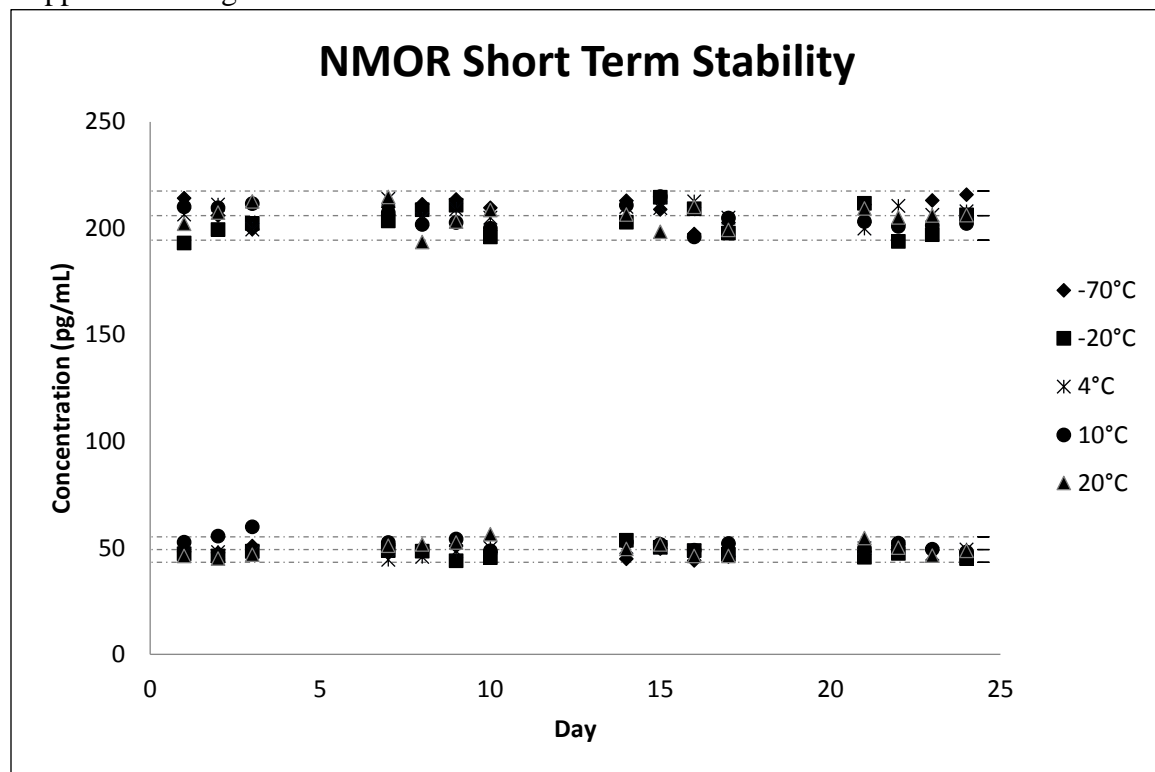
\*Dashed lines denote mean  $\pm$  2 standard deviations; QC low = 50 pg/mL, QC high = 200 pg/mL

Supplemental Figure 1b



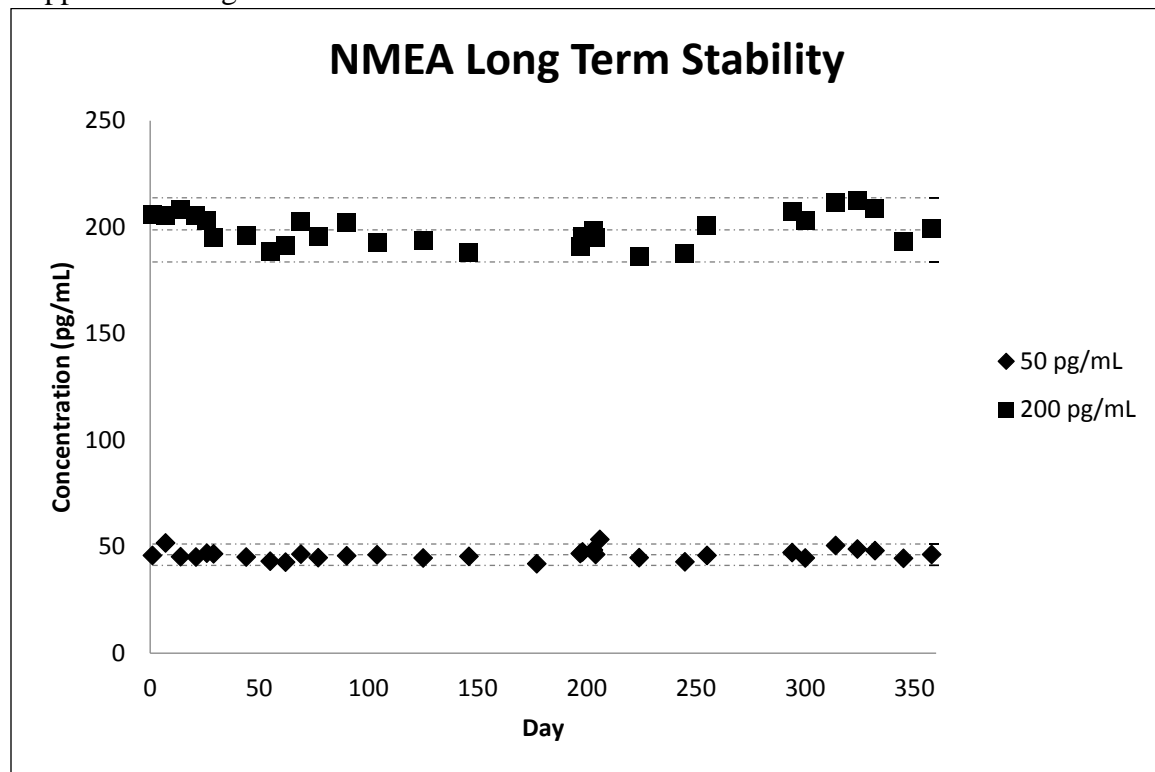
\*Dashed lines denote mean  $\pm$  2 standard deviations; QC low = 50 pg/mL, QC high = 200 pg/mL

Supplemental Figure 1c



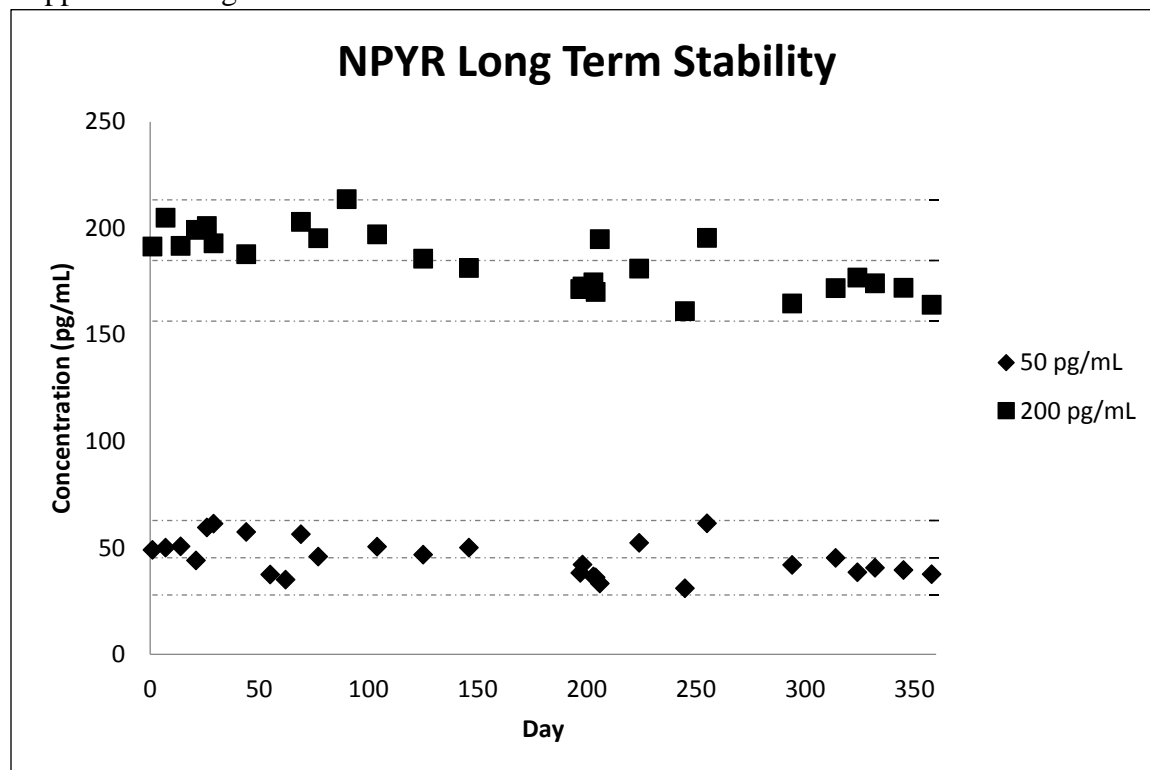
\*Dashed lines denote mean  $\pm$  2 standard deviations; QC low = 50 pg/mL, QC high = 200 pg/mL

Supplemental Figure 2a



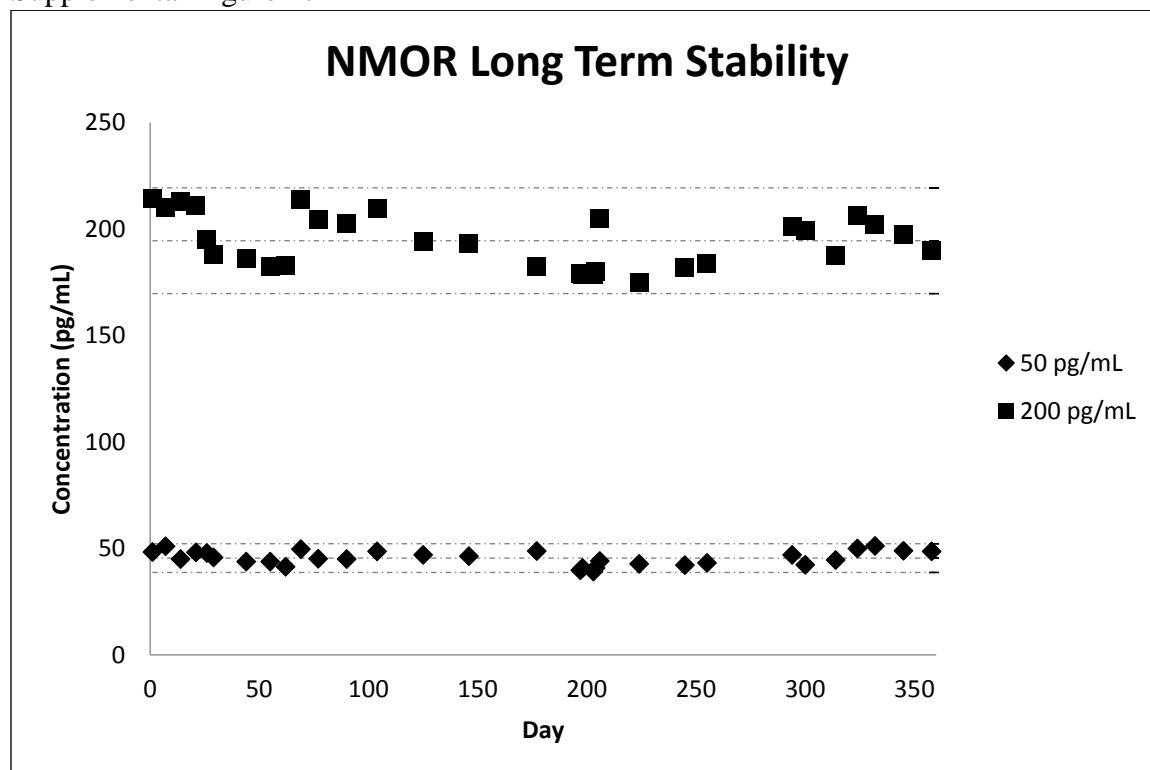
\*Dashed lines denote mean  $\pm$  2 standard deviations

Supplemental Figure 2b



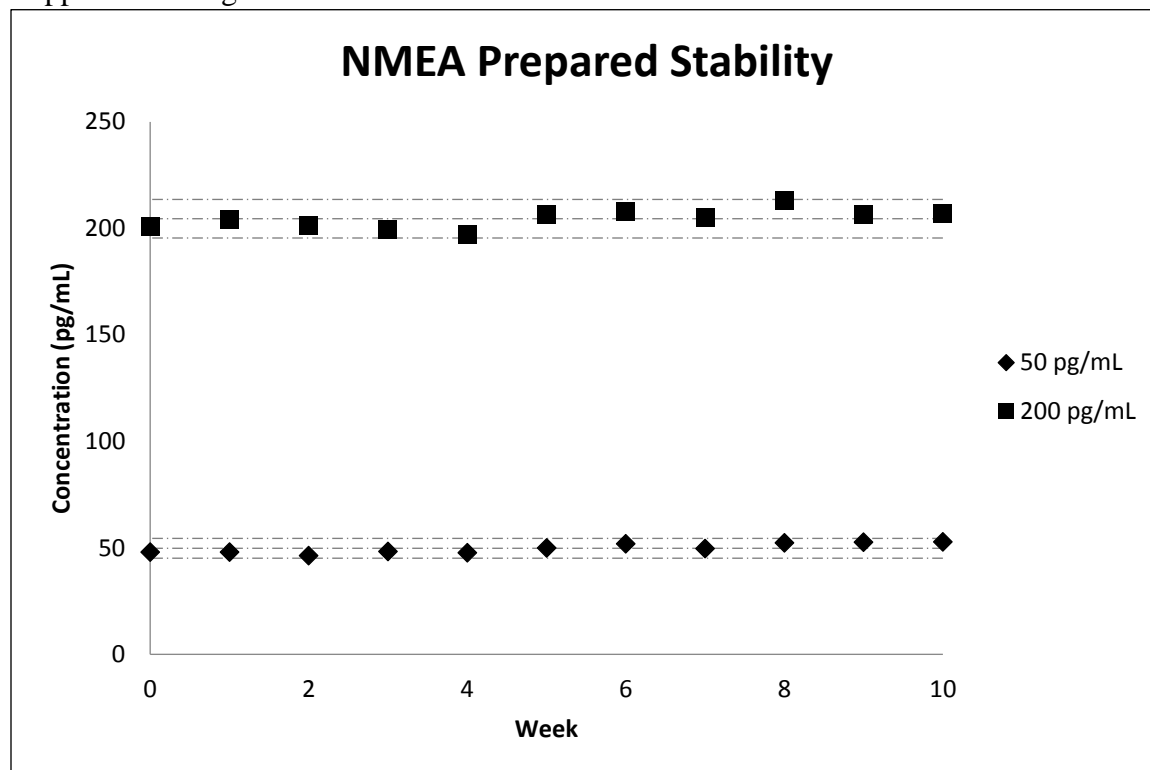
*\*Dashed lines denote mean  $\pm$  2 standard deviations*

Supplemental Figure 2c



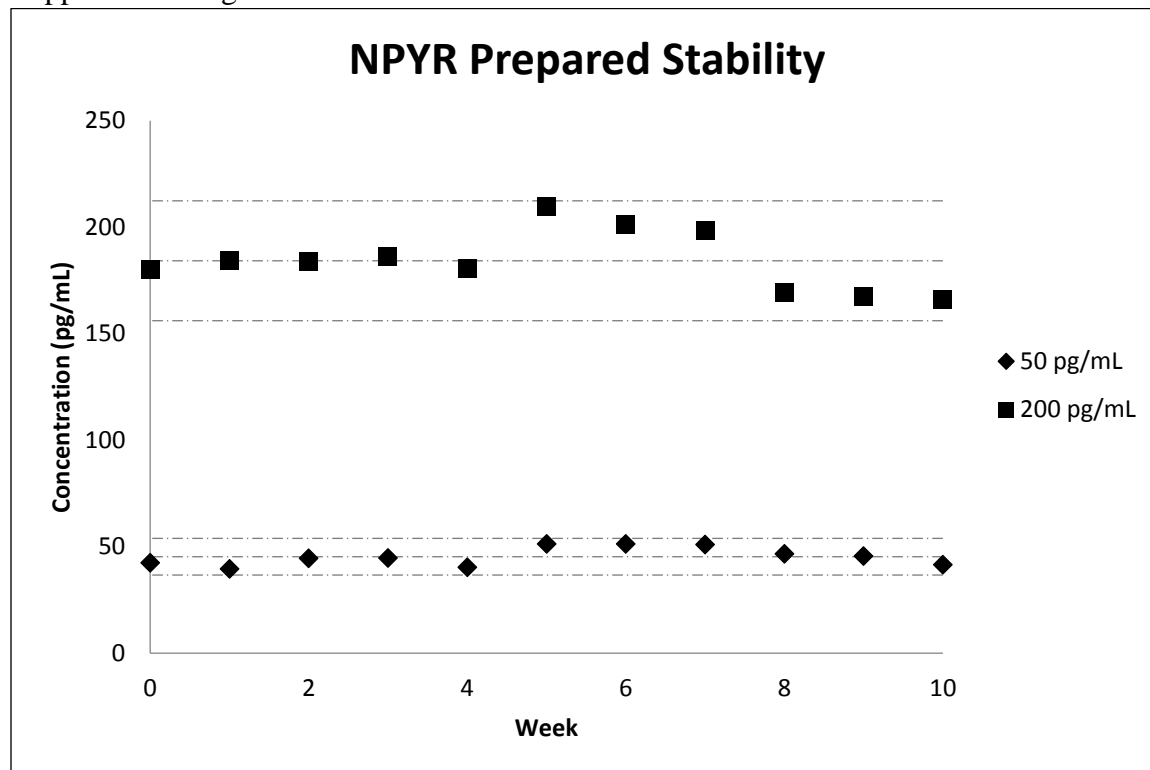
*\*Dashed lines denote mean  $\pm$  2 standard deviations*

Supplemental Figure 3a



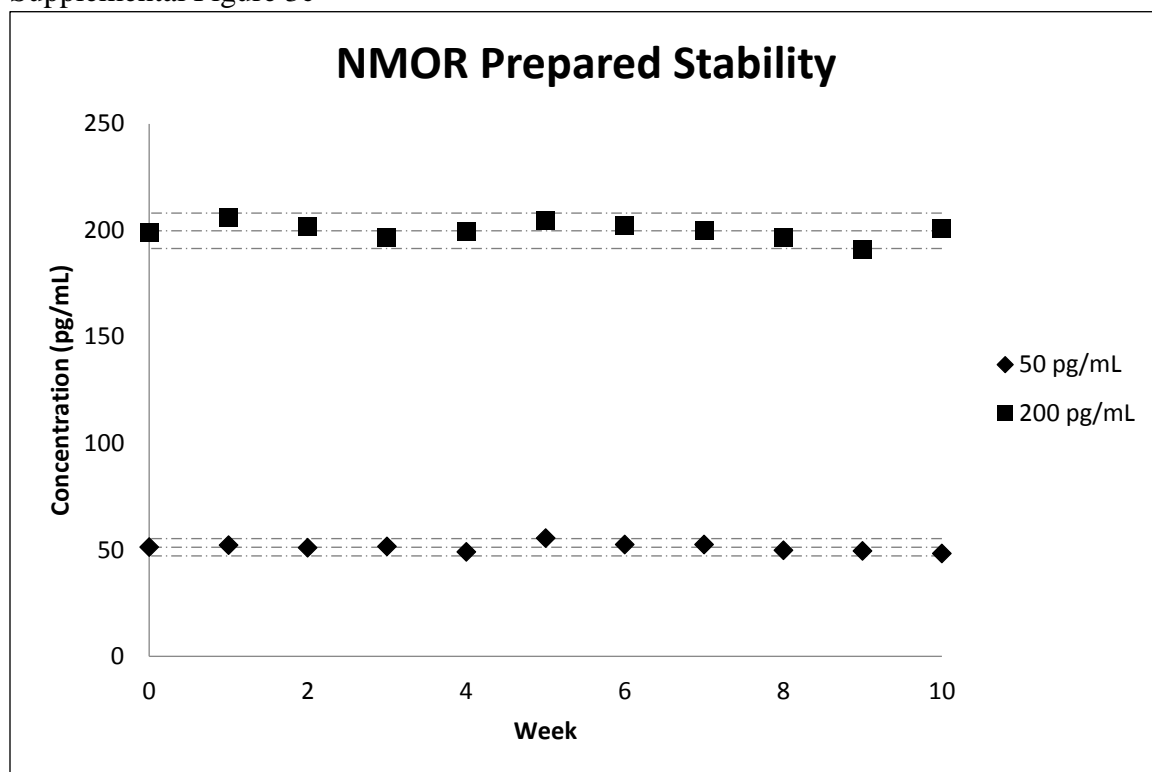
*\*Dashed lines denote mean  $\pm$  2 standard deviations*

Supplemental Figure 3b



*\*Dashed lines denote mean  $\pm$  2 standard deviations*

Supplemental Figure 3c



*\*Dashed lines denote mean  $\pm$  2 standard deviations*

Supplemental Table 1

50 pg/mL n = 15		Mean - 2 $\sigma$ (pg/mL)	Mean (pg/mL)	Mean + 2 $\sigma$ (pg/mL)	CV (%)
	NDMA	41.1	49.9	58.6	8.78
	NMEA	43.2	47.8	52.4	4.79
	NDEA	43.8	48.2	52.7	4.60
	NPIP	50.0	55.4	60.8	4.90
	NPYR	41.9	47.9	53.9	6.24
	NMOR	43.2	49.2	55.2	6.07
200 pg/mL n = 15		Mean - 2 $\sigma$ (pg/mL)	Mean (pg/mL)	Mean + 2 $\sigma$ (pg/mL)	CV (%)
	NDMA	182	201	220	4.64
	NMEA	194	206	218	2.89
	NDEA	187	205	224	4.45
	NPIP	214	230	247	3.58
	NPYR	186	199	211	3.11
	NMOR	194	206	218	2.80

Supplemental Table 2

50 pg/mL n = 62		Mean - 2 $\sigma$ (pg/mL)	Mean (pg/mL)	Mean + 2 $\sigma$ (pg/mL)	CV (%)
	NDMA	37.2	44.7	52.2	8.40
	NMEA	41.2	46.2	51.3	5.43
	NDEA	37.2	44.0	50.7	7.67
	NPIP	33.1	44.5	56.0	11.1
	NPYR	27.9	45.3	62.9	19.3
	NMOR	38.7	45.5	52.2	7.42
200 pg/mL n = 62		Mean - 2 $\sigma$ (pg/mL)	Mean (pg/mL)	Mean + 2 $\sigma$ (pg/mL)	CV (%)
	NDMA	166	188	211	6.00
	NMEA	184	199	214	3.79
	NDEA	160	193	225	8.54
	NPIP	145	189	232	11.5
	NPYR	156	185	213	7.70
	NMOR	170	194	219	6.38

Supplemental Table 3

50 pg/mL n = 22		Mean - 2 $\sigma$ (pg/mL)	Mean (pg/mL)	Mean + 2 $\sigma$ (pg/mL)	CV (%)
	NDMA	46.1	50.6	55.0	4.20
	NMEA	45.1	49.8	54.4	4.45
	NDEA	45.4	50.5	55.7	4.90
	NPIP	47.5	52.2	56.8	4.25
	NPYR	36.7	45.3	53.9	9.06
	NMOR	47.2	51.2	55.3	3.78
200 pg/mL n = 22		Mean - 2 $\sigma$ (pg/mL)	Mean (pg/mL)	Mean + 2 $\sigma$ (pg/mL)	CV (%)
	NDMA	177	201	224	5.67
	NMEA	195	205	214	2.11
	NDEA	186	203	220	4.08
	NPIP	196	205	214	2.10
	NPYR	156	184	212	7.28
	NMOR	192	200	208	1.98

## Figure Captions

Supplemental Figure 1a – Short Term Stability of NMEA in Human Urine at Various Temperatures

Supplemental Figure 1b – Short Term Stability of NPYR in Human Urine at Various Temperatures

Supplemental Figure 1c – Short Term Stability of NMOR in Human Urine at Various

Temperatures Supplemental Figure 2a – Long Term Stability of NMEA in Human Urine at -70°C

Supplemental Figure 2b – Long Term Stability of NPYR in Human Urine at -70°C

Supplemental Figure 2c – Long Term Stability of NMOR in Human Urine at -70°C

Supplemental Figure 3a – Stability of NMEA in Prepared Samples at -20°C

Supplemental Figure 3b – Stability of NPYR in Prepared Samples at -20°C

Supplemental Figure 3c – Stability of NMOR in Prepared Samples at -20°C

Supplemental Table 1 – Short Term Stability of VNAs in Human Urine at Various Temperatures (mean  $\pm 2\sigma$  indicates the established range of a spiked QC pool, and any results that fall within the range are acceptable)[33]

Supplemental Table 2 – Long Term Stability of VNAs in Human Urine at -70°C

Supplemental Table 3 – Stability of VNAs in Prepared Samples at -20°C