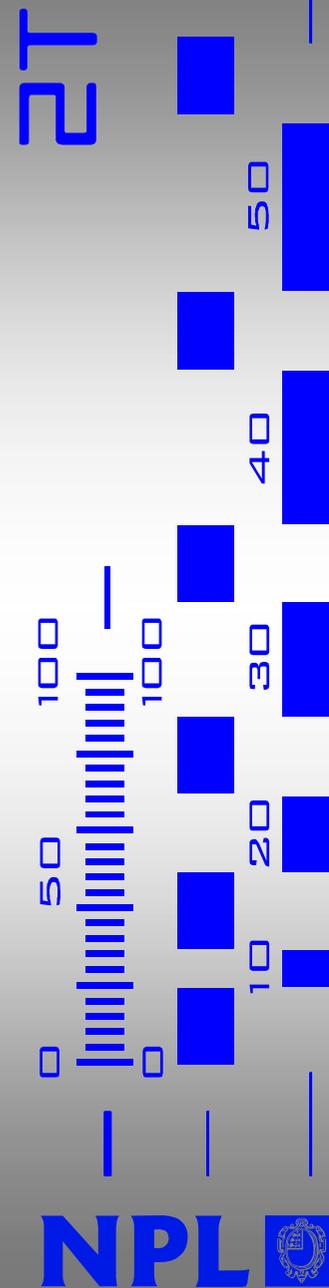


Alpha / Beta Results

Arvic Harms

27 September 2004



Introduction

- Alpha / beta exercise:

5 nuclides (^{90}Sr , ^{99}Tc , ^{238}Pu , ^{239}Pu and ^{241}Am)

2 activity concentrations:

ABH (between 2 and 10 Bq g⁻¹)

ABL (between 2 and 12 Bq kg⁻¹)

⁹⁰Sr

- ABH: 5 results (4 : 0 : 1)
- ABL: 7 results (6 : 0 : 1)

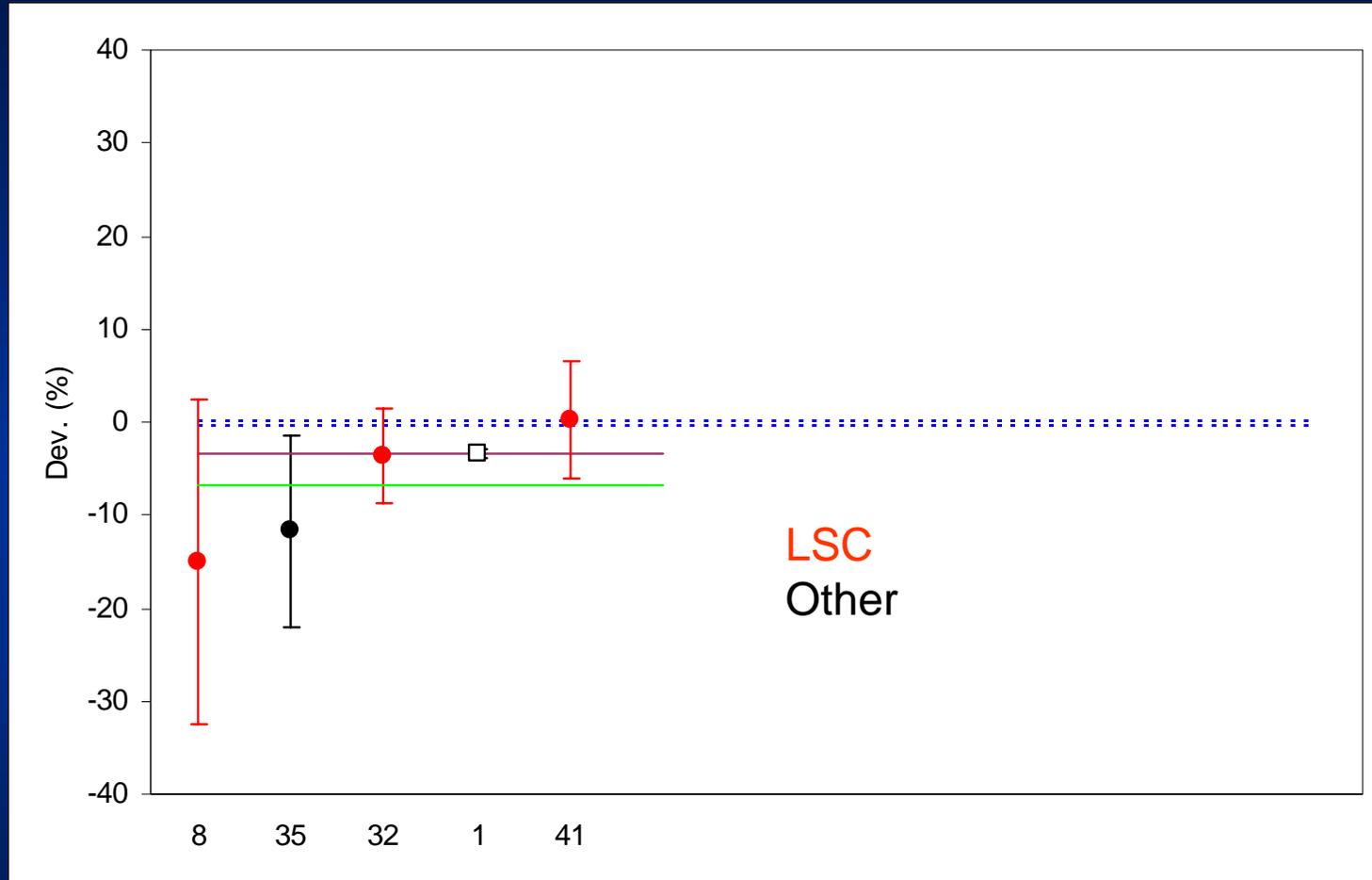
NPL values:

ABH 9.631(18) Bq g⁻¹

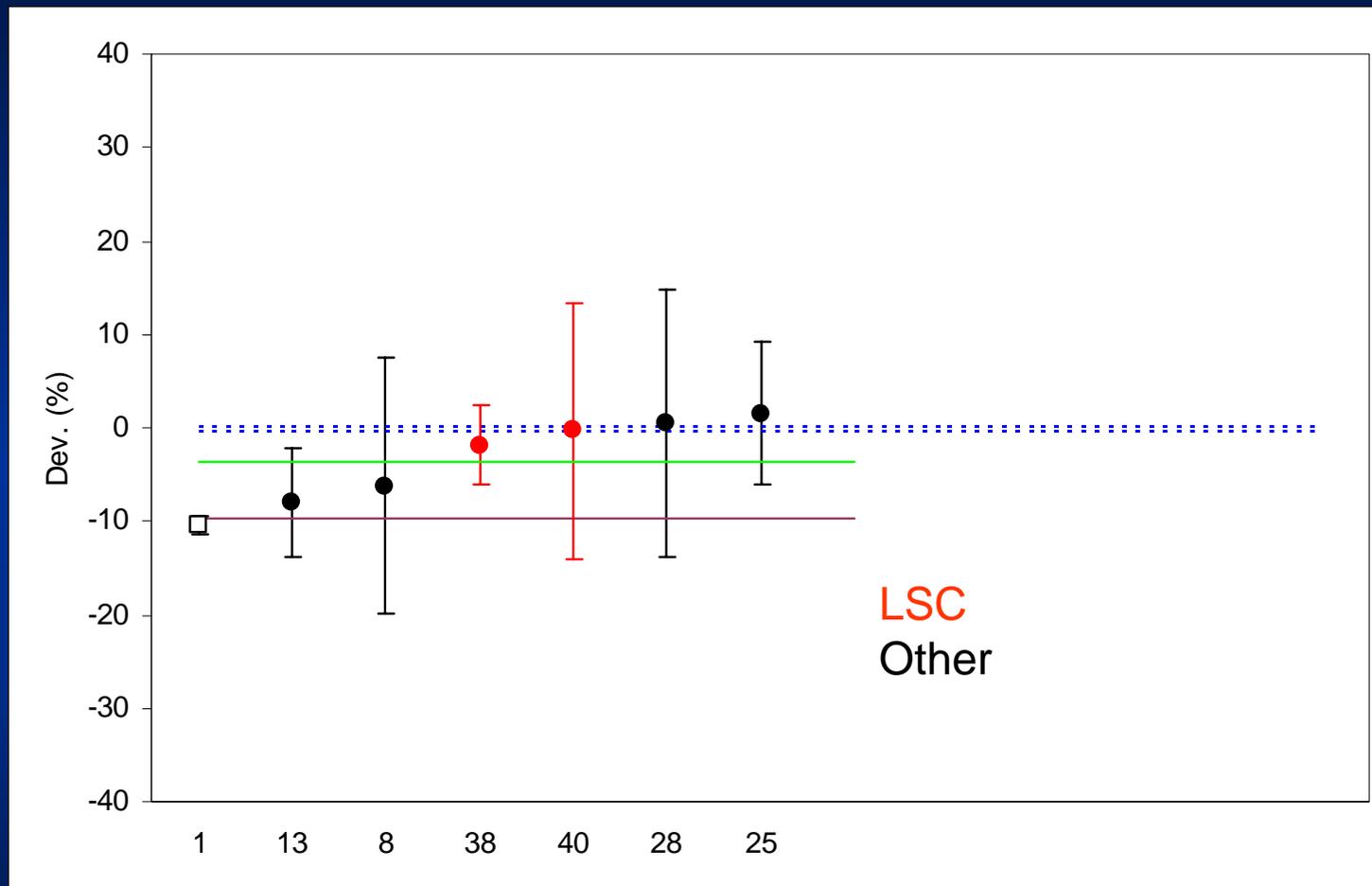
ABL 11.942(35) Bq kg⁻¹

Reference date: 1 March 2004

^{90}Sr ABH



^{90}Sr ABL



⁹⁹Tc

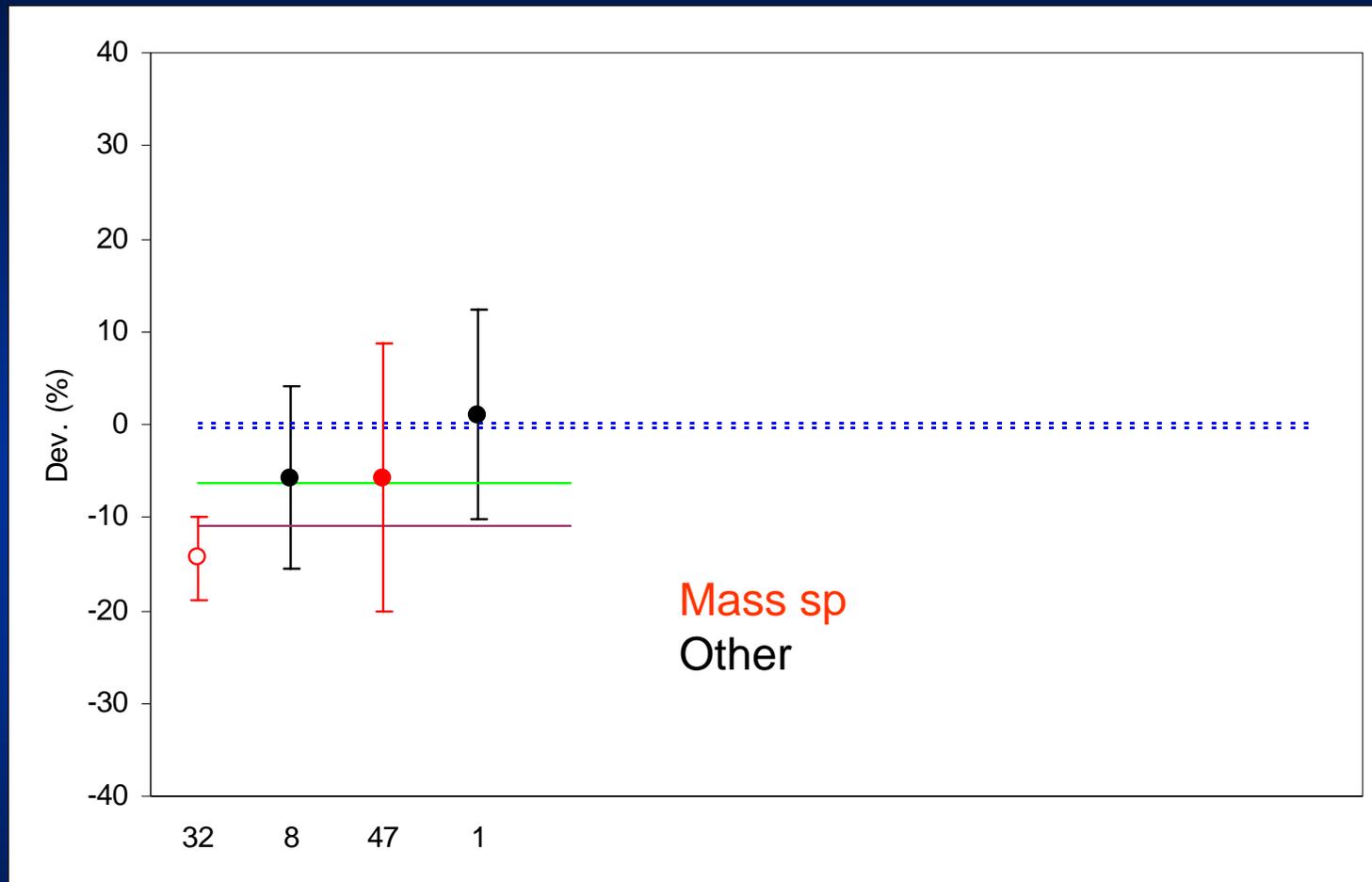
- ABH: 4 results (3 : 1 : 0)
- ABL: 4 results (3 : 1 : 0)

NPL values:

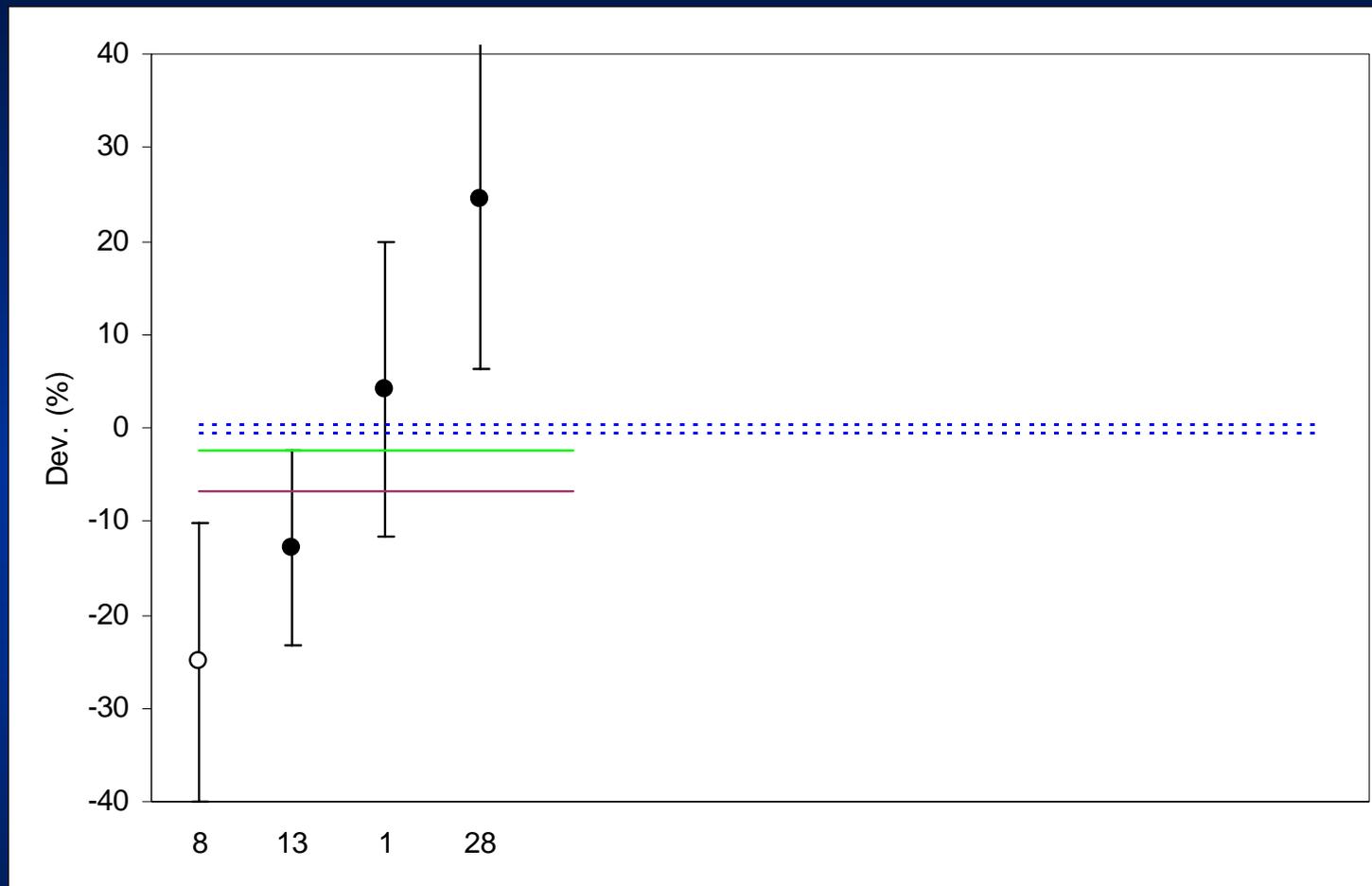
ABH 3.563(10) Bq g⁻¹

ABL 4.418(17) Bq kg⁻¹

^{99}Tc ABH



^{99}Tc ABL



²³⁸Pu

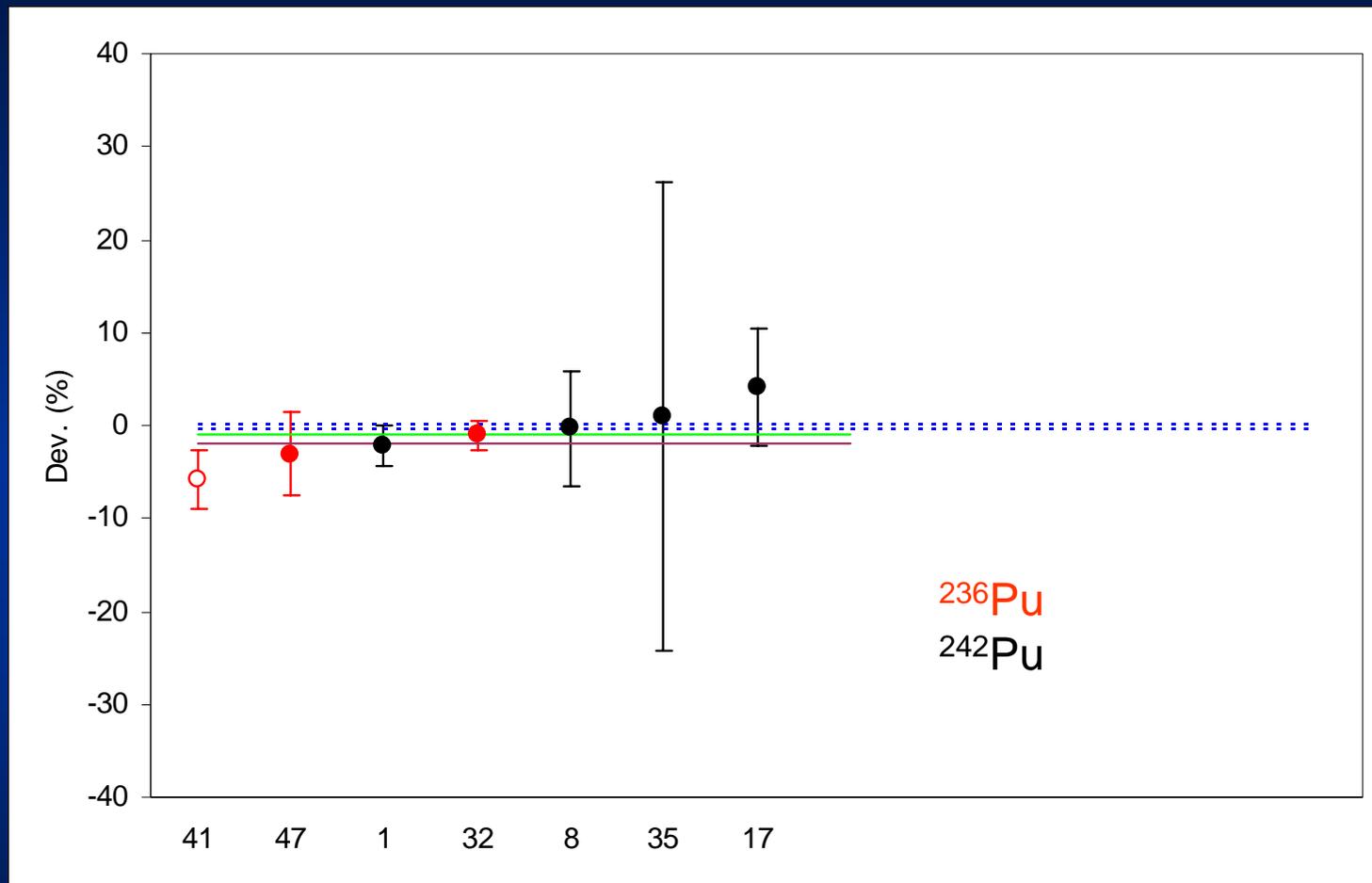
- ABH: 7 results (6 : 1 : 0)
- ABL: 11 results (6 : 5 : 0)

NPL values:

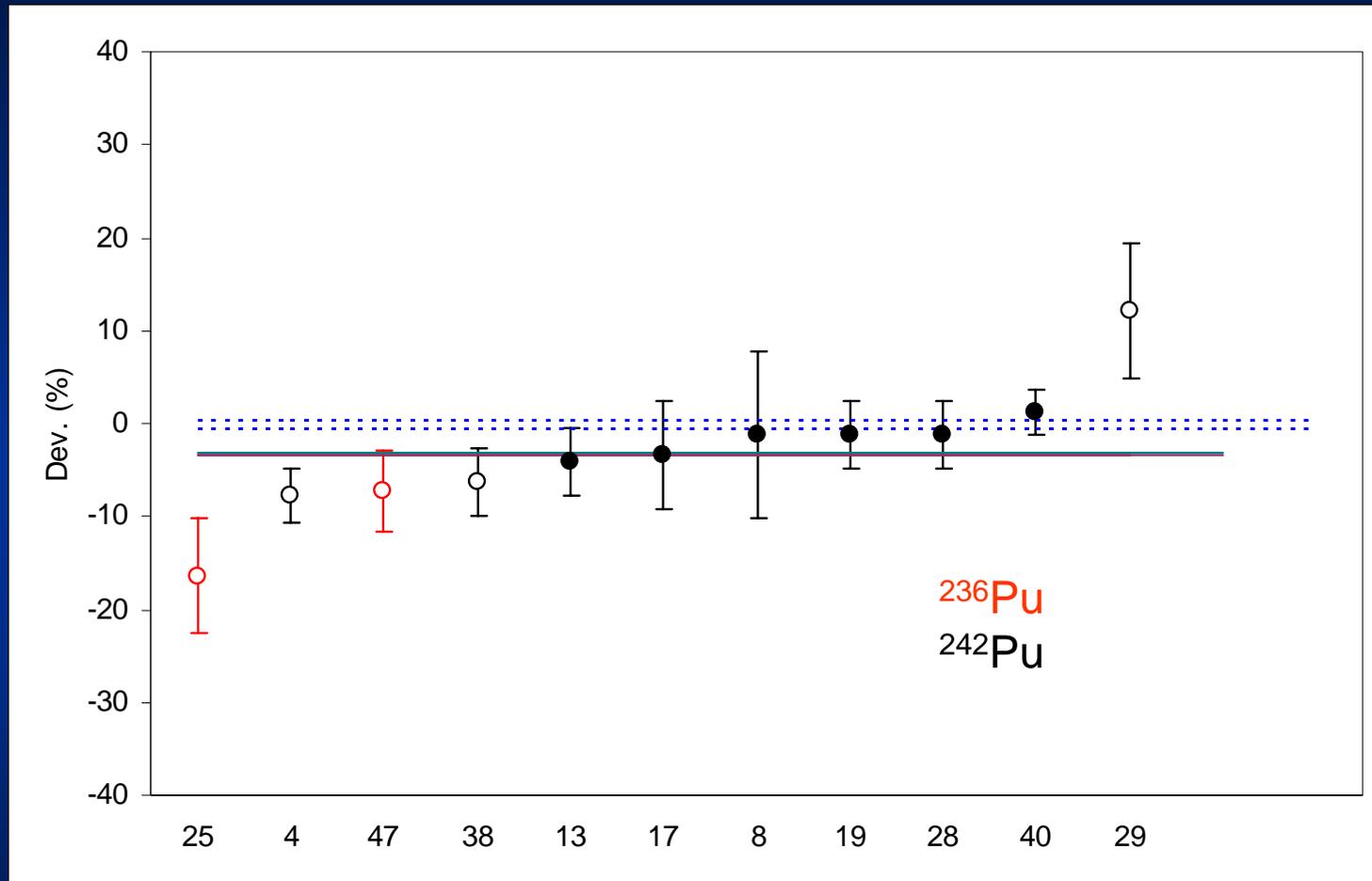
ABH 2.228(7) Bq g⁻¹

ABL 2.763(11) Bq kg⁻¹

^{238}Pu ABH



^{238}Pu ABL



²³⁹Pu

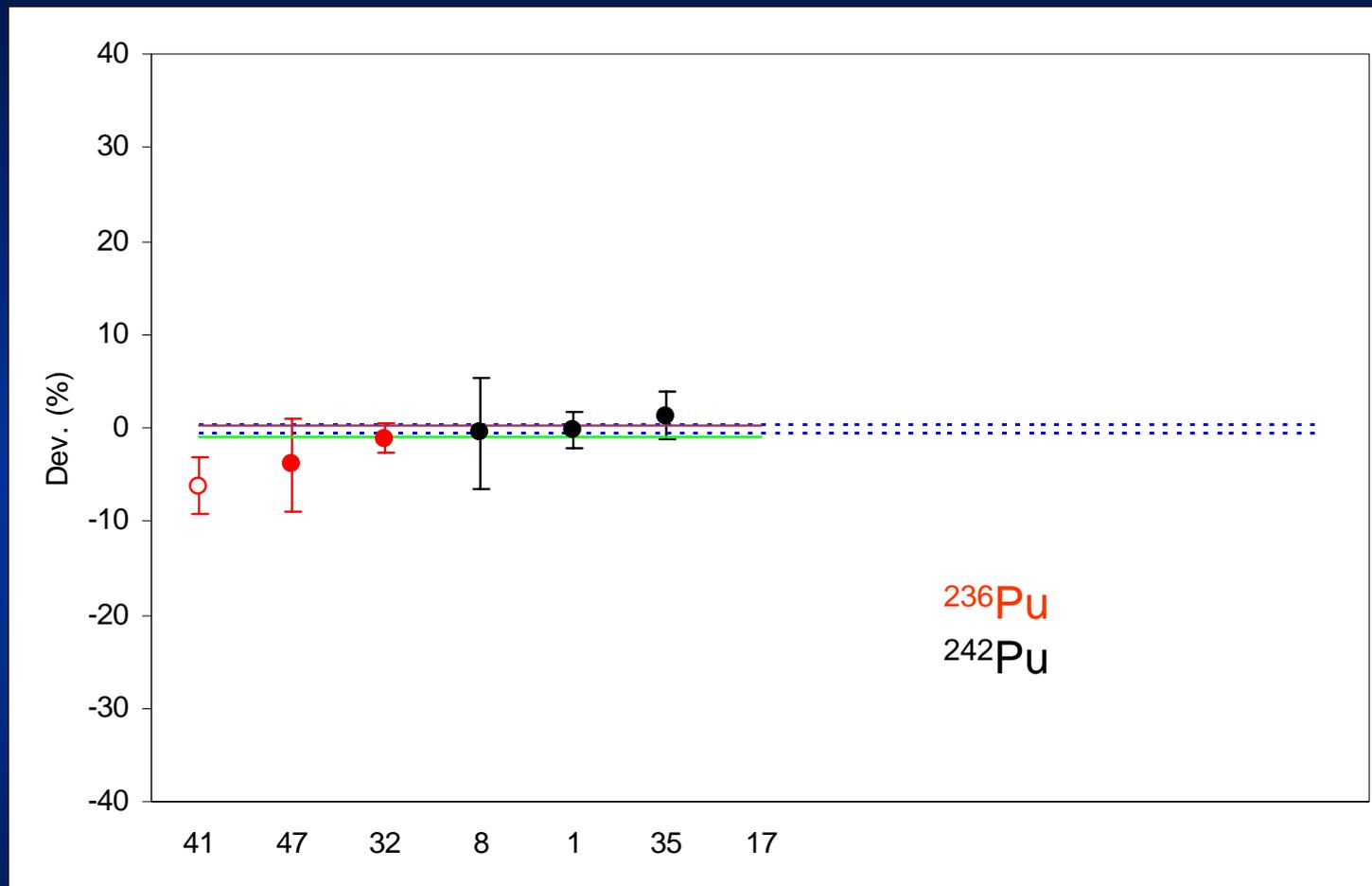
- ABH: 7 results (5 : 1 : 1)
- ABL: 11 results (9 : 2 : 0)

NPL values:

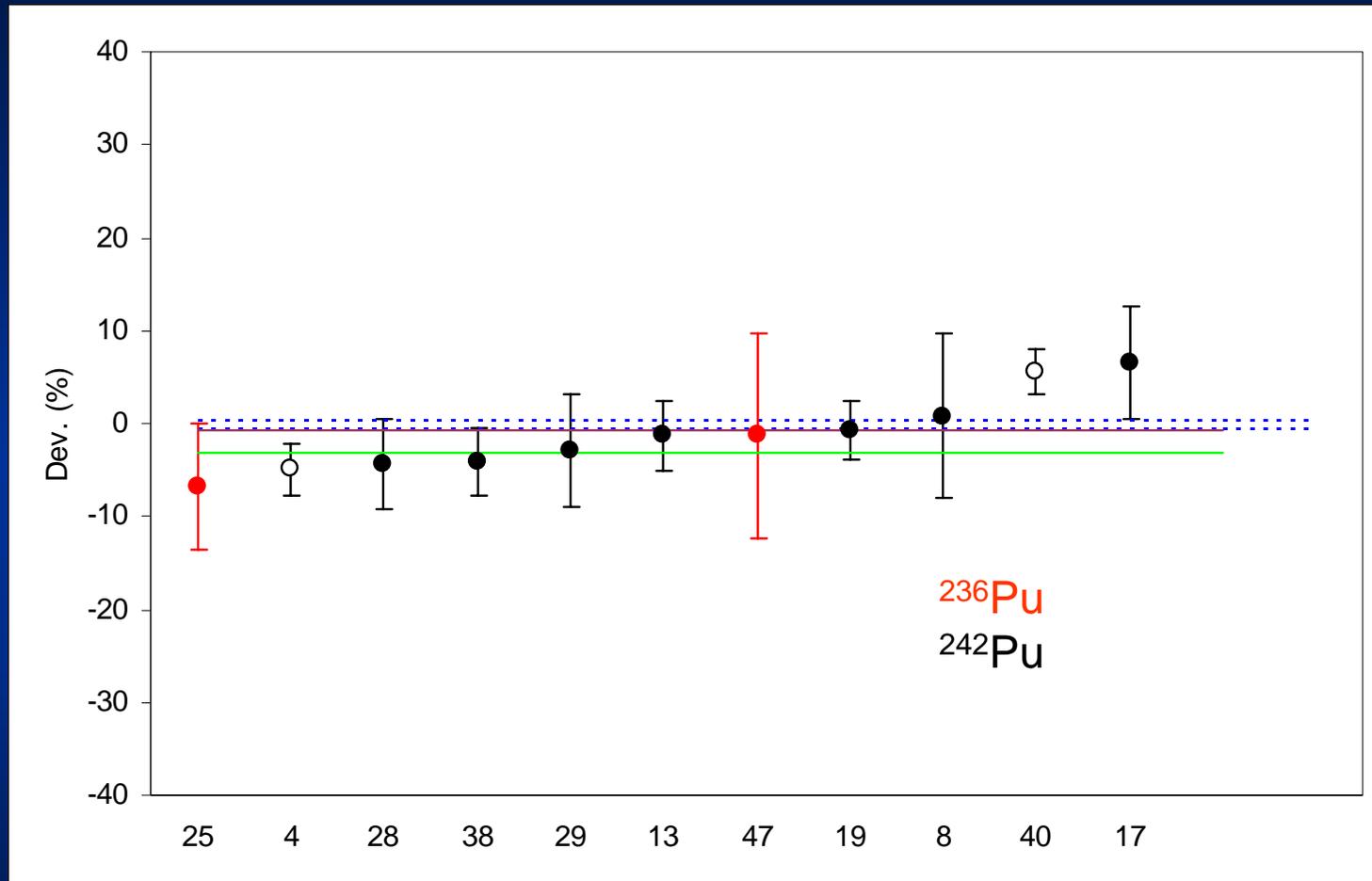
ABH 2.656(11) Bq g⁻¹

ABL 3.293(16) Bq kg⁻¹

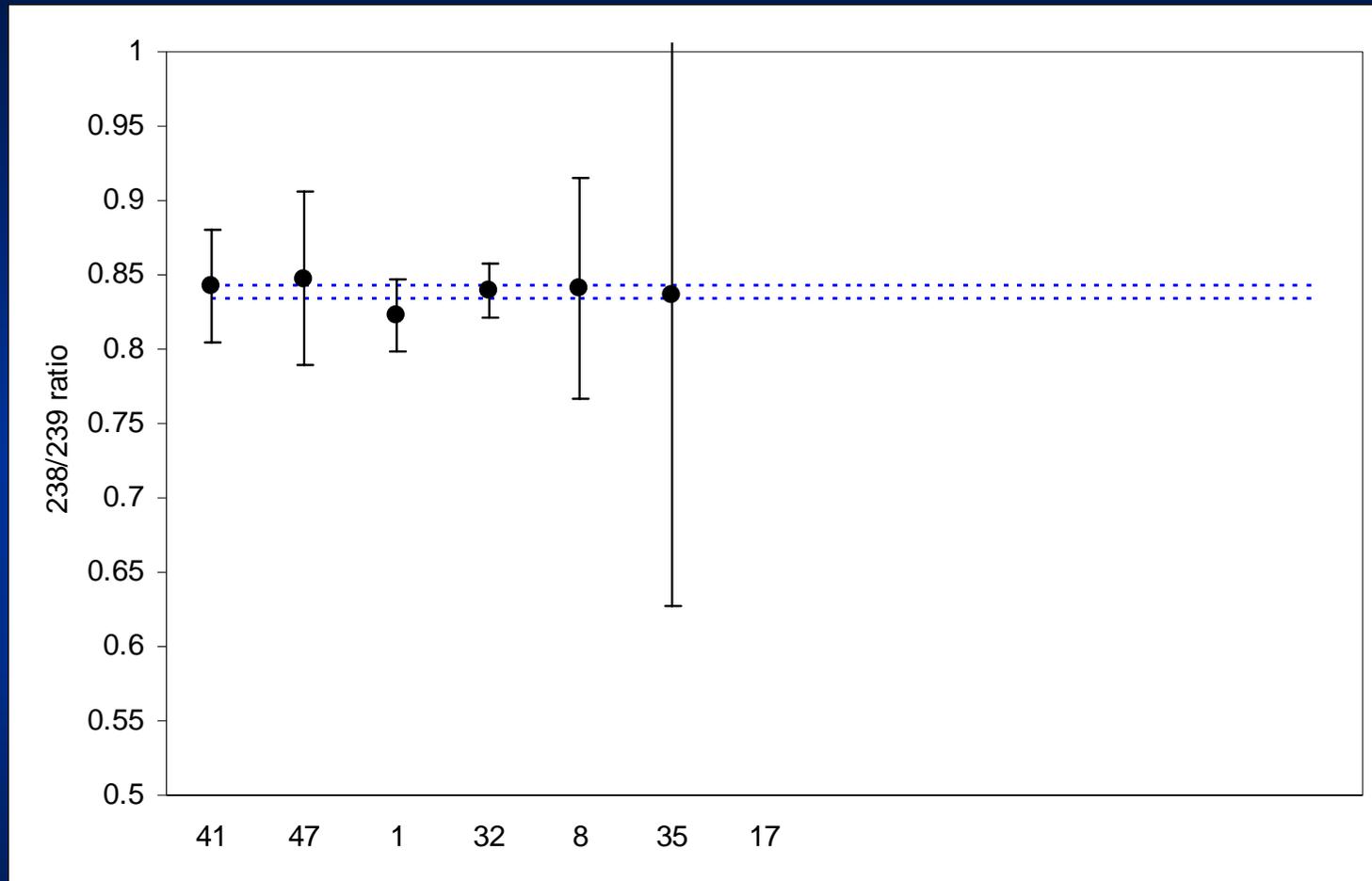
^{239}Pu ABH



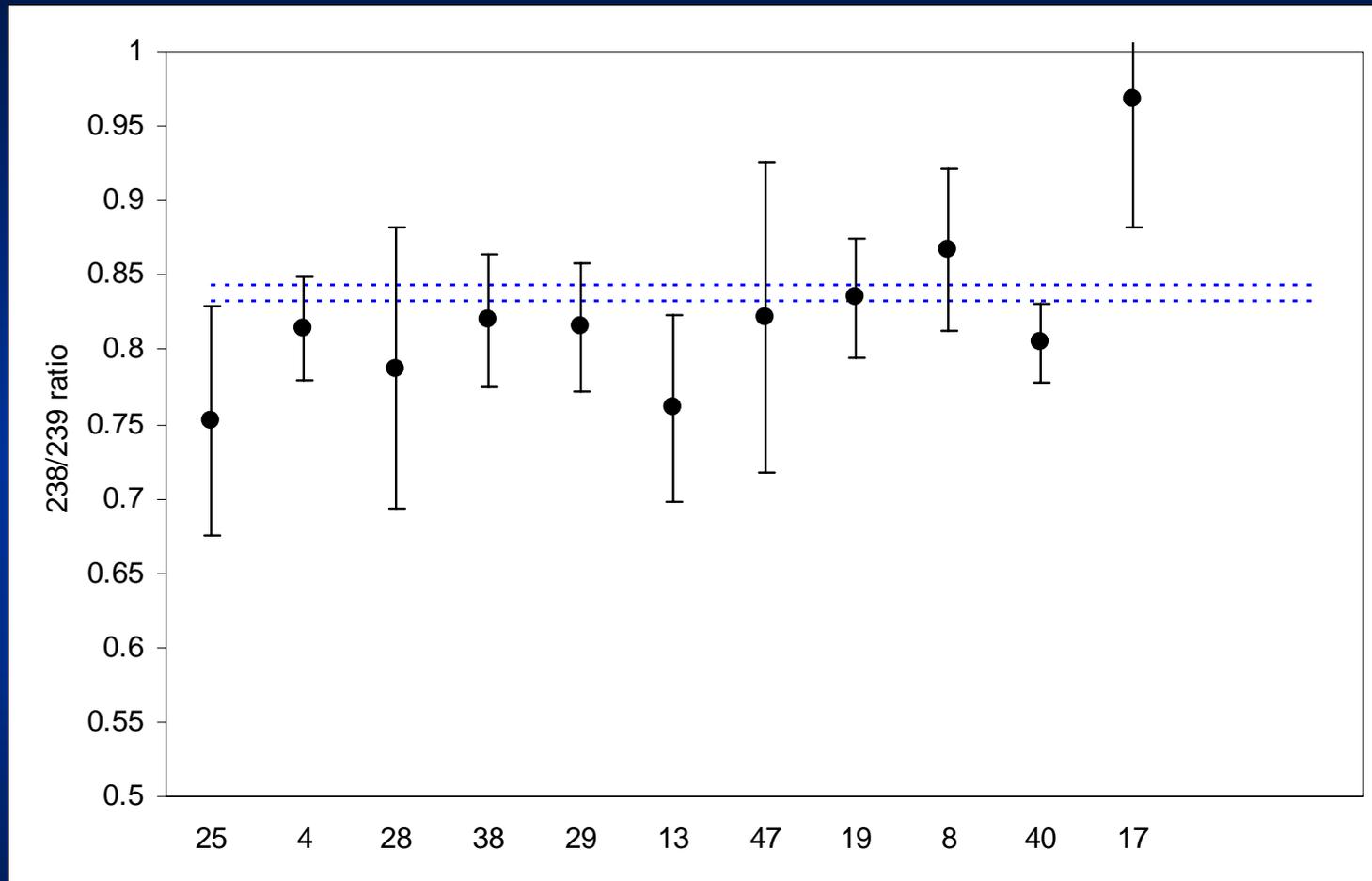
^{239}Pu ABL



$^{238}/^{239}\text{Pu}$ ABH



$^{238}/^{239}\text{Pu}$ ABL



²⁴¹Am

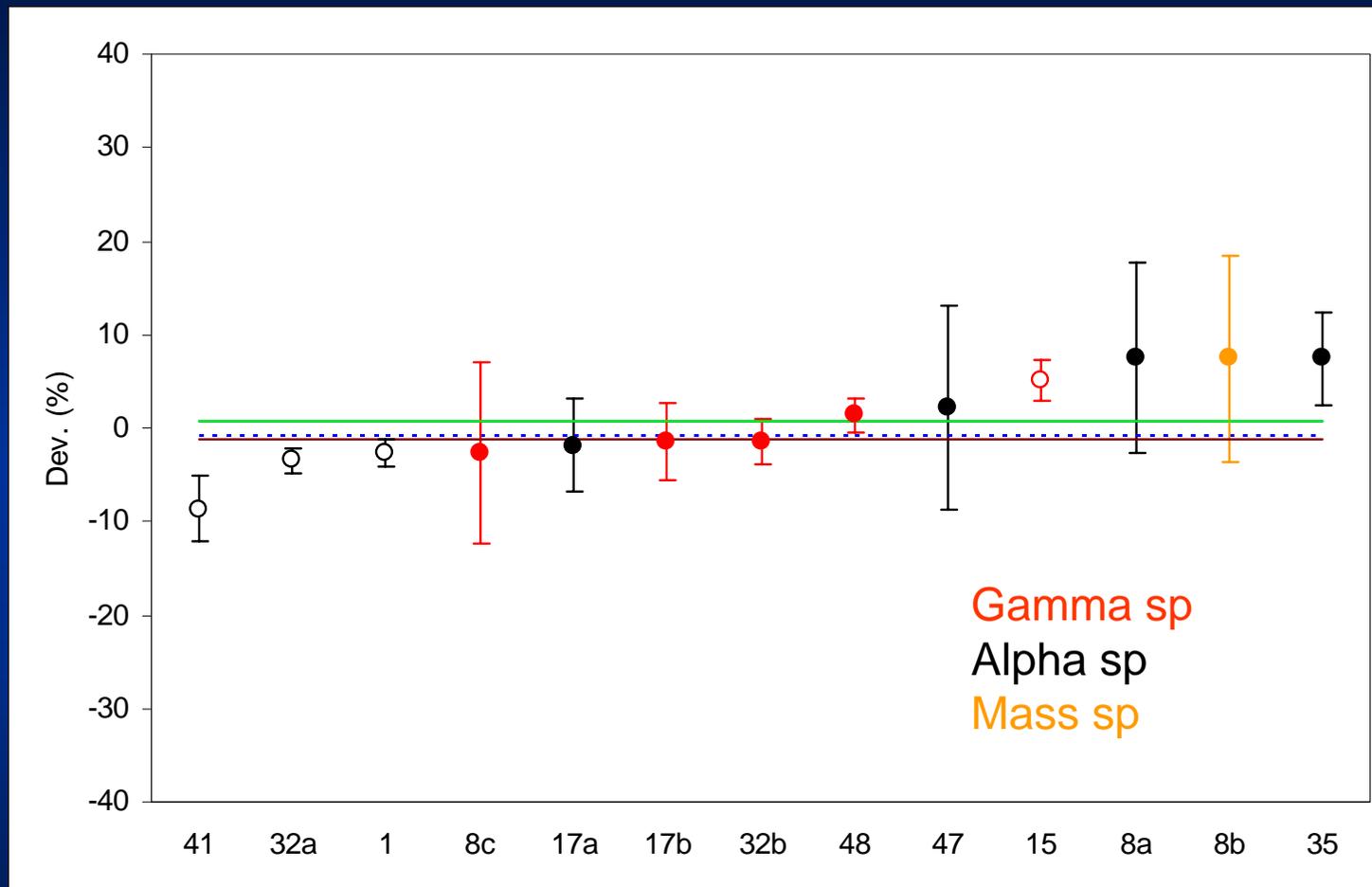
- ABH: 13 results (9 : 4 : 0)
- ABL: 13 results (10 : 1 : 2)

NPL values:

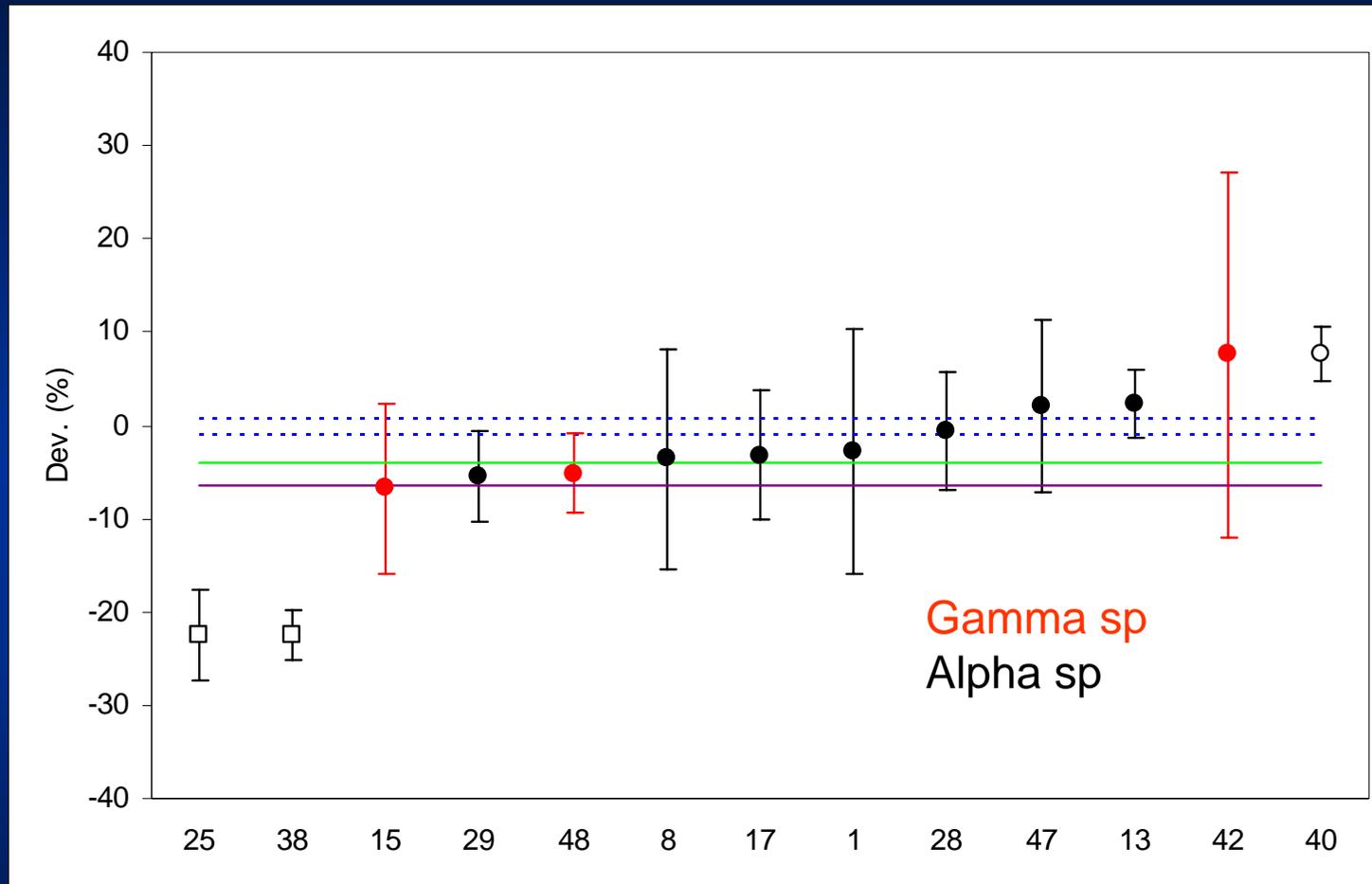
ABH 2.466(18) Bq g⁻¹

ABL 3.058(23) Bq kg⁻¹

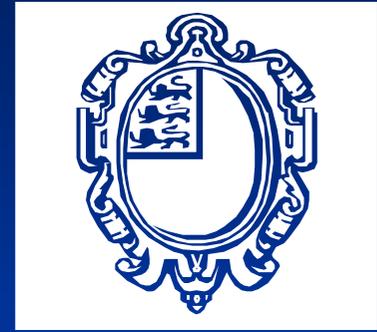
^{241}Am ABH



^{241}Am ABL



NPL



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