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Arguments on the General Superiority of Neutralization Potential (NP) Methodology Translated into Varieties of Oranges

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Morin and Hutt (2009) argued that no method of analyzing Neutralization Potential (NP) can be generally superior to the others. The reasoning began with the observation that NP is not intrinsic to a solid-phase sample – it also depends in part on the characteristics of the aqueous phase in contact with the solid. Unless an NP method simulated the aqueous solutions at every minesite in the world, then its NP value is a rough generic estimate at most sites, requiring correction factors. That is in fact the reason for an integrated suite of tests (Morin and Hutt, 1997, 1999, and 2001) – to adjust a generic NP to the specific minesite. Interestingly, some experts argue that no correction factors are needed for NP (Miller, 2009).

We find an interesting analogue to NP methods in the many varieties of oranges, like Navel, Mandarin, Persian, and Valencia. For those who are not closely familiar with NP methods, this analogue clarifies some of the distorted and biased arguments about NP. The following table translates some NP arguments into arguments about oranges. Are you convinced that Mandarin oranges are the only real oranges? NP methods are no better!

Table 1. Neutralization Potential and the Corresponding Varieties of Oranges	
Comments about NP and NP methods	Translation into comments about varieties of oranges including Navel, Mandarin, Persian, and Valencia
Modified NP is the correct NP	Mandarin oranges are the only real oranges
You can use any NP method, as long as you compare it to a Modified NP	All varieties of oranges are real oranges, but you must at least have a Mandarin orange around so you can be sure to have a real orange
Modified NP is lower than Sobek NP and thus closer to the real NP	Mandarin oranges are smaller than navel oranges and are thus the real oranges.
Modified NP is always lower than Sobek NP	Mandarin oranges are always smaller than other oranges
Modified NP can accurately determine NP across the common range of NP values	No real orange is larger than a Mandarin orange (see previous)
Although rarely mentioned, there are several Modified NP methods, and each can yield a different NP value for the same sample	Forget that some Mandarin oranges are sweet, some bitter, some juicy, some dry, some rotten; a Mandarin orange is an orange so you must eat it!
One NP method is consistently “more aggressive” or “less aggressive”	One variety of orange is always better than the others because it is grown under better conditions
One NP method is better than others if it has fewer correction factors	The less you know about how an orange is grown and cared for, the better it is for you (also, let’s all return to Model T Fords because they were much simpler in their design and construction)

References

- Miller, S. 2009. Email from Stuart Miller, EGi Australia, to many recipients, RE: Draft European standard - ABA, stating "I certainly agree with Charles [Bucknam] that we report what is measured by the method used and that correction factors are not appropriate." Email dated March 8, 2009.
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