

Understanding RaDAR Quant Results

The following information provides an overview of the contents of the columns used in the reporting documents. Column headers are shown in bold text.

Metadata

Agency: An abbreviation of the overarching agency under which the site falls.

NIST_ID: Barcode number from the vial.

Run_Date: The date the quantitative analysis of the sample was completed at NIST.

Note: All other information related to the sample can be found in the qualitative RaDAR data.

Quantitative Data

4-ANPP, BTMPS, etc.: The quantitative results for the compound listed. The values in these columns represent the percentage of the listed compound in the sample (percent by weight). These values represent the free-base form of the compound and are not adjusted for the salt form. Additional nomenclature you may find in the results include:

- “NA” – The compound was not detected during quantitative analysis of the sample.
 - **Note:** There are differences in instrument sensitivities between the qualitative and quantitative analyses that can lead to detection of a compound in one type of analysis but not the other.
- “<LOQ” – The compound was present below the quantifiable levels of the instrument. Generally, limits of quantitation are approximately **0.1 %** by weight, however this value is dependent upon the amount of material initially received.
- “Error in Weight – No Quant Calculations” – This indicates that there was a discrepancy in the weight of the vial, typically due to liquid spilling during transit or a vial label falling off. The discrepancy in the weight means that quantitative results cannot be provided because they will not accurately reflect the proportion of drug in the sample.

Note: There is an uncertainty associated with all quantitative values. The uncertainty for reported values is **±20%**. This percentage is not an absolute, but rather a relative value (e.g., if a quantitative value is 50% by weight, an uncertainty of ±20% means that the actual quantitative value is between 40% by weight and 60% by weight (relative), not 30% and 70% (absolute)). Given the measurement uncertainty, it is possible to obtain values that add up to slightly over 100%.

Note: It is unlikely that the sum of all contents will add to 100% due to the presence of salts (if not free-base) and other compounds that are not incorporated into the quant panel.

Compound Metrics

The table on the following page provides the salt correction factors. To convert a quantitative number from free base to the salt form, multiply the listed value by the salt correction factor in the table below.

Compound	Salt Correction Factor (a.u.)
4-ANPP	Typically not a salt
6-Acetylmorphine	Typically not a salt
Acetaminophen	Typically not a salt
Acetyl fentanyl	1.11 (HCl salt)
Benzoyllecgonine	Typically not a salt
Bromazolam	Typically not a salt
BTMPS	Typically not a salt
Caffeine	Typically not a salt
Carfentanil	Typically not a salt
Cocaine	1.12 (HCl salt)
Despropionyl p-Fluorofentanyl	Typically not a salt
Despropionyl p-Methylfentanyl	Typically not a salt
Diphenhydramine	1.14 (HCl salt)
Ethyl 4-ANPP	1.11 (HCl salt)
Etomidate	Typically not a salt
Fentanyl	1.11 (HCl salt) 1.58 (Citrate salt)
Heroin	1.10 (HCl salt)
Ketamine	1.15 (HCl salt)
Levamisole	1.18 (HCl salt)
Lidocaine	1.16 (HCl salt)
Medetomidine	1.10 (HCl salt)
Metamizole	1.07 (Sodium salt)
Methamphetamine	1.24 (HCl salt)
N-desethyl Etonitazene	1.10 (HCl salt) 1.47 (Citrate salt)
Noscapine	1.09 (HCl salt)
N-Phenethyl-N-phenylpropionamide	Typically not a salt
N-Pyrrolidino Etonitazene	1.09 (HCl salt) 1.48 (Citrate salt)
o-Methylfentanyl	1.10 (HCl salt)
Papaverine	Typically not a salt
p-fluoro Phenethyl 4-ANPP	1.09 (HCl salt)
p-Fluorofentanyl	1.10 (HCl salt)
Phenacetin	Typically not a salt
Phenethyl 4-ANPP	1.09 (HCl salt)
Procaine	1.15 (HCl salt)
Protonitazene	1.09 (HCl salt) 1.47 (Citrate salt)
Quetiapine	1.15 ($\frac{1}{2}$ C ₄ H ₄ O ₄ salt)
Quinine	1.11 (HCl salt)
Tetracaine	1.14 (HCl salt)
Tramadol	1.14 (HCl salt)
Xylazine	1.17 (HCl salt)