

## Laboratory Footnotes and Qualifiers

### Footnote

- A. Insufficient uranium present in the sample to determine an assay.
- B. Maximum assay was used to calculate the MDA for total uranium activities.
- C. Normal assay was used to calculate the MDA for total uranium activities.
- D. Sample was analyzed by a non-destructive test per customer request.
- E. Gross activities are a calculated value. Gamma activity is converted to the corresponding gross alpha/beta measurement.
- F. Insufficient sample available/provided for gross beta analysis.
- G. TIMS assay used to calculate total uranium activity.
- H. No nuclide meet criteria for gross gamma.
- I. The MDA of all principle nuclide not identified and nuclide identified were summed to provide max, reportable activity
- J. No analysis result available. Sample signal too weak.
- K. No analysis result available. Total U below reporting limit.
- L. No minor isotope determination available. Signal strength insufficient.
- M. Result is biased high and MDA is biased low due to interfering lines and/or increases in BKG due to sample activity.
- N. Measured U-235 act/mass was below MDA therefore all other cal. U isotopes & U-total will be rpt as below their resp. MDAs.
- O. Gross Gamma has no output error.
- P. The max plant assay was assumed since the calculated assay was not within the range of the plant cascade assays.
- Q. Mass of U-235 is  $\leq$  MDM, thus mass of total U/U isotopes won't be reported. Total U/U isotopes will be  $<$  their MDAs  
Asbestos – Not Detected
- R. Cs-134 activity will be understated due to the short half-life and will exclude any previous site induced Cs-134.
- S. Gross gamma is a Cs-137 equivalence. Activity assumes branch yield and det eff of Cs-137 for all line in spectrum.
- T. Analyte is a common volatile laboratory contaminant
- T1. Sample analysis is below LCR for concent., however above report. limit for assay.
- T1Z1. Samp analysis below LCR concent., above report. limit assay/.05wt% = or  $>$  2 sigma?
- V. Method 5030A (Purge & Trap)
- W. Analyte is present at the LCR.
- Y. U/U-234 act are estimated. Assay used was determined by gamma. U/U-234 results can't be used for any NCS/NMC&A purposes. - Uranium
- Z. Std Dev is calculated based on controls (SRM) prepared and analyzed with each sample batch. SRM is ~0.711 wt% U-235.
- Z1. This 0.05 wt% value equal to or  $>$  2 sigma for controls associated w/data.

### Inorganic Qualifiers

- \* Duplicate analysis not within control limits.
- + Method of standard additions (MSA) correlation coefficient less than 0.995.
- A Indicates that a TIC is suspected aldol-condensation product.
- B Applies when the analyte is found in the associated blank
- D All compounds identified in the analysis at the secondary dilution factor.
- E Result estimated due to interferences.
- J Indicates an estimated value
- M Duplicate injection precision not met.
- N Sample spike recovery not within control limits.
- Q No analytical result available or not required because total analyses  $<$  PQL.
- R QC indicates that data are not usable. Resampling and re-analysis are necessary for verification.
- S Result determined by method of standard additions (MSA).
- U Analyte analyzed for but not detected at or below the lowest concentration reported.
- W Post-digestion spike recovery out of control limits.
- X Other specific flags and footnotes may be required to properly define the results.

### Organic Qualifiers

- A Tentatively identified compound (TIC) is suspected aldol-condensation product.
- B Compound found in blank as well as sample.
- C Compound presence confirmed by GC/MS (GC/MS flag).
- D Compounds identified in an analysis at a secondary dilution filter.
- E Result exceeds calibration range (GC/MS flag).
- J Indicates an estimated value.
- N Presumption evidence of a compound GC/MS flag).
- P Difference between results from two GC columns unacceptable.
- U Compound analyzed for but not detected at or below the lowest concentration reported.
- X Other specific flags and footnotes may be required to properly define the results.
- Y MS, MSD recovery and/or RPD failed acceptance criteria.
- Z (Reserved by CLP for a laboratory-defined organic date qualifier.)

### Rad Qualifiers

- A Analyzed but not detected at the analyte quantitation limit.
- B Method blank not statistically different from sample at 95% level of confidence.
- D Sample is statistically different from duplicate at 95% level of confidence.
- J Indicates an estimated value.

- L Expected and measured value for LCS is statistically different at 95% level of confidence.
- M Expected and measured value for MS is statistically different at 95% level of confidence.
- R QC indicates that data are not usable. Resampling and reanalysis are necessary for verification.
- T Tracer recovery is < or equal to 30% or > or equal to 105%.
- U Value reported is < the MDA and/or < 2 sigma TPE.
- X Other specific flags and footnotes may be required to properly define the results.