Radiochemical Data Review Checklist
Schofield Barracks

Project: 07-3080.04 Schofield Barracks
LAB ID: SC & A
Reviewer: Stacey Sedano
Date: 12/28/07

Work Order: 7947
Analysis Type: Gamma Spectroscopy

Sample	Matrix	Collection Date	Date Received	Preparation Date	Hold Times Met? (Y, N< or N/A)	Analysis Date	Hold Times Met? (Y, N< or N/A)
SB-CZ-SS-2224-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2225-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2226-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2227-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2228-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2229-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2230-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2231-SD	Soil	9-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2232-SD	Soil	09-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2233-SD	Soil	09-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2234-SD	Soil	09-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2235-SD	Soil	09-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2236-SD	Soil	09-26-07	10-01-07	10-15-07	N/A	12-01-07	N/A
SB-CZ-SS-2237-SD	Soil	09-26-07	10-01-06	10-15-07	N/A	12-01-07	N/A

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Validation Item	Acceptable (YES)	Not Acceptable (NO)	Not Applicable (N/A)
Sample Chain of Custody Review			
Are there printed names and signatures present in the Relinquished By and Received By Blocks?		X(1)	
Does the COC date match the Relinquished By date?	X		
Is the Received By date consistent with sample custody transfer (Relinquished By)?	X		
Have all the samples listed on the Chain of Custody have been analyzed? (Verify this by checking that the Memo and/or case narratives are consistent with the COC. - Gamma Isotopes	X		
Were the sample(s) preserved appropriately?			X
Are all the samples included in the analytical report are listed correctly on the Chain of Custody?	X		
Are the analytes reported consistent with the project requirements? (See Attached Sheet)	X		
Comments: 1. Printed name not present in received by block. No data were qualified as a result of this omission.			
Sample Receipt Checklist Review			
Did the laboratory complete the Sample Receiving Checklist?	X		
Are all receipt inspection items marked “Yes”? (If “No” are they acceptable?).	X		
Comments:			
Case Narrative/Analytical Report			
Does the Case Narrative report submitted by the laboratory indicate any problems with the analysis or other factors which could impact the validity of the sample analysis?	X		
Does the Analytical report agree with the analyte list specified for the project?	X		

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Validation Item	Acceptable	Not Acceptable	Not Applicable
Are results that are flagged by laboratory necessary and complete, and are understandable comments provided?	X		
Are the reporting units are correct and consistent? (pCi/g)	X		
Comments:			
Laboratory Quality Control Sample Review			
Did the laboratory properly complete all required laboratory quality control samples at required frequencies? LCS - 1 per matrix and one per batch or 1/20 samples whichever is more frequent Matrix Spike – 1 per matrix and one per batch or 1/20 samples whichever is more frequent Duplicates - 1 per matrix and one per batch or 1/20 samples whichever is more frequent Blanks - 1 per matrix and one per batch or 1/20 samples whichever is more frequent	X(2)		
Are the laboratory quality control sample results acceptable (solids)? LCS - 30% -69% estimated (J); >130% estimated (J); <30% unusable (R) Matrix Spike – 20% -70% estimated (J); >130% estimated (J); <20% unusable (R) Duplicates - Duplicates – Normalized Absolute Difference (NAD)>1.96 estimated (J)	X(2,3,4)		
Comments: 2. Matrix Spikes are not necessary for Gamma Spec. 3. LCS and NAD results are all acceptable. 4. No Potential Blank contamination.			

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Other Evaluation Factors			
If a result has an uncertainty greater than the result, is the uncertainty is less than the required detection limit?	X		
Are the sample hold times acceptable? (Six months or less for all Rad except ^{3}H, which is three months or less)			X
Are total propagated uncertainty (TPU) values provided for all results?	X		
Are the aliquot sizes appropriate – (1 g minimum for dry solids)	X		
Are soil sample results reported on a dry-weight basis? (See Case Narrative)	X		
Were required detection limits achieved? (see "QA/QC Plan" Table 2.2)	X (6)		

Comments:

5. Detection limit of 0.5 pCi/g was met for all samples for Th-234.