

AMENDED REPORT

Analytical Data Package Prepared For
North Creek Analytical

Radiochemical Analysis By
STL Richland

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code:

Data Package Contains 21 Pages

Report No.: 30046

| SDG No. | Order No. | Client Sample ID (List Order) | Lot-Sa No. | Work Order | Report DB ID | Batch No. |
|---------|-----------|-------------------------------|-------------|------------|--------------|-----------|
| 29403 | Joclyn | P5F1168-01 | J5G080357-1 | HE5HV1AD | 9HE5HV10 | 5192314 |
| | | P5F1168-01 | J5G080357-1 | HE5HV1AA | 9HE5HV10 | 5192316 |
| | | P5F1168-01 | J5G080357-1 | HE5HV1AC | 9HE5HV10 | 5193385 |
| | wolfe | P5F1168-02 | J5G080357-2 | HE5LT1AD | 9HE5LT10 | 5192314 |
| | | P5F1168-02 | J5G080357-2 | HE5LT1AA | 9HE5LT10 | 5192316 |
| | | P5F1168-02 | J5G080357-2 | HE5LT1AC | 9HE5LT10 | 5193385 |
| 29895 | Joclyn | P5F1168-01 | J5I120148-1 | HKC611AC | 9HKC6110 | 5256373 |
| | | P5F1168-01 | J5I120148-1 | HKC611AA | 9HKC6110 | 5256385 |
| | wolfe | P5F1168-02 | J5I120148-2 | HKC621AC | 9HKC6210 | 5256373 |
| | | P5F1168-02 | J5I120148-2 | HKC621AA | 9HKC6210 | 5256385 |

Certificate of Analysis

STL Richland
2800 George Washington Way
Richland, WA 99354

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September 28, 2005

North Creek Analytical
9405 SW Nimbus Ave
Beaverton, OR 97008

Attention: Lisa Domenighini

| | | |
|----------------------|---|----------------------|
| Date Received by Lab | : | <u>June 30, 2005</u> |
| Sample Number/Matrix | : | Two (2) Waters |
| SDG Number | : | 29403 / 29895 |
| Client Sample Code | : | P5F1168 |

CASE NARRATIVE

This data report has been amended to reflect the correct sample receipt date. All amendments in the case narrative are bold and underlined.

I. Introduction

On June 30, 2005

, two water samples were received at the STL Richland (STLR) laboratory for radiochemical analysis. Upon receipt, the samples were assigned STLR identification numbers as described on the cover page of the Analytical Data Package. The samples were assigned to Lot Number J5G080357 / J5I120148.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Alpha Spectrometry
Isotopic Thorium by method RICH-RB-5084
Gas Proportional Detectors
Gross Alpha Analysis by method STL RICH-RC-5014
Laser-Induced Phosphorescence
Total Uranium by method RICH-RC-5015

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September 28, 2005

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Alpha Spectrometry

Isotopic Thorium Analysis (Un-filtered):

The LCS, batch blank, matrix spike, sample and sample duplicate results are within acceptance limits.

Isotopic Thorium Analysis (Filtered):

Sample P5F1168-02 achieved MDA exceeds the CRDL due to the small aliquot taken resulting from the amount left after filtering. The chemical yield of the LCS fails; 3%. However, the sample and batch blank yields are within acceptance limits and sample results are below CRDL. Data is accepted. Except as noted, the LCS, batch blank, matrix spike, sample and sample duplicate results are within acceptance limits.

Gross Alpha Analysis:

The LCS, batch blank, sample, sample duplicate, matrix spike and matrix spike duplicate results are within acceptance limits.

Total Uranium Analysis (Un-filtered):

The LCS, batch blank, sample and sample duplicate results are within acceptance limits.

Total Uranium Analysis (Filtered):

The matrix spike aliquot was entered incorrectly and can not be corrected. It was entered at 201.5 mL; should have been 25 mL. The result of the sample should have been 37 ug/mL instead of 4.5 ug/mL. Except as noted, the LCS, batch blank, sample and sample duplicate results are within acceptance limits.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:



Erika Jordan
Project Manager

Drinking Water Method Cross References

| DRINKING WATER ASTM METHOD CROSS REFERENCES | | |
|--|---------------|---------------------------|
| Referenced Method | isotope(s) | STL Richland's SOP number |
| EPA 901.1 | Cs-134, I-131 | RICH-RC-5017 |
| EPA 900.0 | Alpha & Beta | RICH-RC-5014 |
| EPA 903.1 | Ra-226 | RICH-RC-5005 |
| EPA 904.0 | Ra-228 | RICH-RC-5005 |
| EPA 905.0 | Sr89/90 | RICH-RC-5006 |
| ASTM D2460 | Total Radium | RICH-RC-5027 |
| Standard Method 7500-U-C & ASTM D5174 | Uranium | RICH-RC-5058 |
| EPA 906.0 | Tritium | RICH-RC-5007 |
| NOTE: | | |
| The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative) | | |
| The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative) | | |

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,\dots)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

AMENDED REPORT

Report Definitions

| | |
|---|--|
| Action Lev | An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit. |
| Batch | The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together. |
| Bias | Defined by the equation $(Result/Expected)-1$ as defined by ANSI N13.30. |
| COC No | Chain of Custody Number assigned by the Client or STL Richland. |
| Count Error (#s) | Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background. |
| Total Uncert (#s) <i>u_c - Combined Uncertainty.</i> | All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u_c</i> , the combined uncertainty. The uncertainty is absolute and in the same units as the result. |
| (#s), Coverage Factor | The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations. |
| CRDL (RL) | Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL) |
| Lc | Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = 1.645 * \sqrt{2 * (BkgndCnt/BkgndCntMin)/SCntMin} * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct)$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero. |
| Lot-Sample No | The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot. |
| MDC MDA | Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = 4.65 * \sqrt{(BkgndCnt/BkgndCntMin)/SCntMin} + 2.71/SCntMin * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct)$. For LSC methods the batch blank is used as a measure of the background variability. |
| Primary Detector | The instrument identifier associated with the analysis of the sample aliquot. |
| Ratio U-234/U-238 | The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038. |
| Rst/MDC | Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result. |
| Rst/TotUcert | Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result. |
| Report DB No | Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number. |
| RER | The equation Replicate Error Ratio = $(S-D)/[\sqrt{(TPUs^2 + TPUd^2)}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample. |
| SDG | Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt. |
| Sum Rpt Alpha Spec Rst(s) | The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units. |
| Work Order | The LIMS software assign test specific identifier. |
| Yield | The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method. |

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Sample Results Summary

Date: 28-Sep-05

STL Richland

Ordered by Method, Batch No., Client Sample ID.

Report No. : 30046

SDG No: 29403

| Batch | Client Id Work Order | Parameter | Result ± Uncertainty (2s) | Qual | Units | Yield | MDC or MDA | CRDL | RER2 |
|--------------------|-------------------------|---------------|----------------------------|------|-------|-------|---------------|------|------|
| 5193385 RICHRC5011 | | | | | | | | | |
| P5F1168-01 | | | | | | | | | |
| | HE5HV1AC | TH-228 | -0.12 ± 0.0992 | U | pCi/L | 45% | 0.777 | 1.0 | |
| | | TH-230 | 0.0 ± 0.235 | U | pCi/L | 45% | 0.26 | 1.0 | |
| | | TH-232 | 0.0 ± 0.235 | U | pCi/L | 45% | 0.26 | 1.0 | |
| P5F1168-01 DUP | | | | | | | | | |
| | HE5HV1AE | TH-228 | -0.0283 ± 0.0403 | U | pCi/L | 59% | 0.4 | 1.0 | 1.7 |
| | | TH-230 | 0.136 ± 0.194 | U | pCi/L | 59% | 0.185 | 1.0 | 0.9 |
| | | TH-232 | 0.0 ± 0.167 | U | pCi/L | 59% | 0.185 | 1.0 | 0.0 |
| P5F1168-02 | | | | | | | | | |
| | HE5LT1AC | TH-228 | -0.0281 ± 0.0563 | U | pCi/L | 40% | 0.672 | 1.0 | |
| | | TH-230 | -0.0271 ± 0.0543 | U | pCi/L | 40% | 0.648 | 1.0 | |
| | | TH-232 | 0.0 ± 0.331 | U | pCi/L | 40% | 0.367 | 1.0 | |
| 5256373 RICHRC5011 | | | | | | | | | |
| P5F1168-01 | | | | | | | | | |
| | HKC611AC | TH-228 | -0.0359 ± 0.0417 | U | pCi/L | 79% | 0.377 | 1.0 | |
| | | TH-230 | 0.251 ± 0.249 | U | pCi/L | 79% | 0.308 | 1.0 | |
| | | TH-232 | 0.0 ± 0.134 | U | pCi/L | 79% | 0.148 | 1.0 | |
| P5F1168-01 DUP | | | | | | | | | |
| | HKC611AD | TH-228 | -0.0154 ± 0.0308 | U | pCi/L | 60% | 0.368 | 1.0 | 0.8 |
| | | TH-230 | 0.0 ± 0.172 | U | pCi/L | 60% | 0.19 | 1.0 | 1.7 |
| | | TH-232 | -0.014 ± 0.0281 | U | pCi/L | 60% | 0.336 | 1.0 | 0.2 |
| P5F1168-02 | | | | | | | | | |
| | HKC621AC | TH-228 | 0.587 ± 1.18 | U | pCi/L | 70% | 1.59 | 1.0 | |
| | | TH-230 | 0.0 ± 1.31 | U | pCi/L | 70% | 1.45 | 1.0 | |
| | | TH-232 | 0.0 ± 1.31 | U | pCi/L | 70% | 1.45 | 1.0 | |
| 5192314 RICHRC5014 | | | | | | | | | |
| 96100T DUP | | | | | | | | | |
| | HEMPK1AG | ALPHA | 13.0 ± 4.6 | | pCi/L | 100% | 2.42 | 3.0 | 0.1 |
| P5F1168-01 | | | | | | | | | |
| | HE5HV1AD | ALPHA | 0.609 ± 1.28 | U | pCi/L | 100% | 2.91 | 3.0 | |
| P5F1168-02 | | | | | | | | | |
| | HE5LT1AD | ALPHA | -0.0276 ± 0.819 | U | pCi/L | 100% | 2.6 | 3.0 | |
| 5192316 RICHRC5058 | | | | | | | | | |
| 96100T DUP | | | | | | | | | |
| | HEMPK1AJ | TOTAL-URANIUM | 30.5 ± 3.69 | | ug/L | | 0.0859 | 1.0 | |
| P5F1168-01 | | | | | | | | | |
| | HE5HV1AA | TOTAL-URANIUM | 0.0522 ± 0.00667 | U | ug/L | | 0.0819 | 1.0 | |
| P5F1168-02 | | | | | | | | | |
| | HE5LT1AA | TOTAL-URANIUM | 1.37 ± 0.142 | | ug/L | | 0.0842 | 1.0 | |

STL Richland RER2 - Replicate Error Ratio = $(S-D)/\sqrt{(\text{sq}(TPUs)+\text{sq}(TPUd))}$ as defined by ICPT BOA.

U Qual - Analyzed for, but the result is less than the Mdc/Mda[Total Uncert or gamma scan software did not identify the nuclide.
rptSTLRchSaSummary2 V4.14.1 A97

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Sample Results Summary

Date: 28-Sep-05

STL Richland

Ordered by Method, Batch No., Client Sample ID.

Report No. : 30046

SDG No: 29403

| Client Id | Batch | Work Order | Parameter | Result +/- Uncertainty (2s) | Qual | Units | Yield | MDC or MDA | CRDL | RER2 |
|-----------------|------------|------------|---------------|------------------------------|------|-------|-------|---------------|------|------|
| 5192318 | RICHRC5058 | | | | | | | | | |
| 5256385 | RICHRC5058 | | | | | | | | | |
| | | PSF1168-01 | | | | | | | | |
| | | HKC611AA | TOTAL-URANIUM | 0.00428 + 0.00075 | U | ug/L | | 0.0733 | 1.0 | |
| | | PSF1168-02 | | | | | | | | |
| | | HKC621AA | TOTAL-URANIUM | 0.635 + 0.0651 | J | ug/L | | 0.0815 | 1.0 | |
| No. of Results: | | 26 | | | | | | | | |

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RER2 - Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{sq}(TPUs)+\text{sq}(TPUd))]$ as defined by ICPT BOA.

rp|STLRchSaSum
mary2 V4.14.1 A97

J Qual - No U|< qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

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QC Results Summary

Date: 28-Sep-05

STL Richland

Ordered by Method, Batch No, QC Type,.

Report No. : 30046

SDG No.: 29403

| Batch | Work Order | Parameter | Result ± Uncertainty (2s) | Qual | Units | Yield | Recovery | Bias | MDC MDA |
|----------------------|------------|---------------|----------------------------|------|-------|-------|----------|------|---------|
| RICHRC5011 | | | | | | | | | |
| 5193385 BLANK QC | | | | | | | | | |
| | HFAXP1AA | TH-228 | -0.0454 ± 0.0911 | U | pCi/L | 24% | | | 1.09 |
| | | TH-230 | 0.0 ± 0.536 | U | pCi/L | 24% | | | 0.593 |
| | | TH-232 | 0.0 ± 0.536 | U | pCi/L | 24% | | | 0.593 |
| 5193385 LCS | | | | | | | | | |
| | HFAXP1AC | TH-228 | -0.0368 ± 0.0524 | U | pCi/L | 47% | | | 0.52 |
| | | TH-230 | 9.65 ± 2.33 | | pCi/L | 47% | 85% | -0.2 | 0.425 |
| | | TH-232 | 0.0 ± 0.217 | U | pCi/L | 47% | | | 0.24 |
| RICHRC5011 | | | | | | | | | |
| 5256373 BLANK QC | | | | | | | | | |
| | HKFGT1AA | TH-228 | 0.0 ± 0.229 | U | pCi/L | 64% | | | 0.254 |
| | | TH-230 | 0.0855 ± 0.171 | U | pCi/L | 64% | | | 0.232 |
| | | TH-232 | 0.0 ± 0.209 | U | pCi/L | 64% | | | 0.232 |
| 5256373 LCS | | | | | | | | | |
| | HKFGT1AC | TH-230 | 4.68 ± 5.33 | U | pCi/L | 3% | 43% | -0.6 | 7.35 |
| RICHRC5014 | | | | | | | | | |
| 5192314 MATRIX SPIKE | | | | | | | | | |
| | HEMPK1AF | ALPHA | 68.3 ± 19.8 | | pCi/L | 100% | 99% | 0.0 | 2.23 |
| 5192314 BLANK QC | | | | | | | | | |
| | HE7701AA | ALPHA | 0.189 ± 0.389 | U | pCi/L | 100% | | | 0.876 |
| 5192314 LCS | | | | | | | | | |
| | HE7701AC | ALPHA | 23.0 ± 5.76 | | pCi/L | 100% | 100% | 0.0 | 1.08 |
| RICHRC5058 | | | | | | | | | |
| 5192316 MATRIX SPIKE | | | | | | | | | |
| | HEMPK1AH | TOTAL-URANIUM | 33.8 ± 8.53 | | ug/L | | 96% | 0.0 | 0.0791 |
| 5192316 BLANK QC | | | | | | | | | |
| | HE7771AA | TOTAL-URANIUM | 0.0244 ± 0.00292 | U | ug/L | | | | 0.0835 |
| 5192316 LCS | | | | | | | | | |
| | HE7771AD | TOTAL-URANIUM | 36.1 ± 3.74 | | ug/L | | 98% | 0.0 | 0.0832 |
| | HE7771AC | TOTAL-URANIUM | 38.0 ± 4.6 | | ug/L | | 103% | 0.0 | 0.0832 |
| RICHRC5058 | | | | | | | | | |
| 5256385 BLANK QC | | | | | | | | | |
| | HKFHV1AA | TOTAL-URANIUM | 0.00265 ± 0.00075 | U | ug/L | | | | 0.0855 |
| 5256385 LCS | | | | | | | | | |
| | HKFHV1AD | TOTAL-URANIUM | 29.1 ± 2.98 | | ug/L | | 78% | -0.2 | 0.0866 |
| | HKFHV1AC | TOTAL-URANIUM | 30.7 ± 3.63 | | ug/L | | 82% | -0.2 | 0.0866 |
| 5256385 MATRIX SPIKE | | | | | | | | | |
| | HKC621AD | TOTAL-URANIUM | 3.95 ± 0.547 | | ug/L | | 88% | -0.1 | 0.0104 |

No. of Results: 21

STL Richland Bias - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchQcSummary V4.14.1 A97 U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

**FORM I
SAMPLE RESULTS**

Date: 28-Sep-05

Lab Name: STL Richland

SDG: 29403

Collection Date: 6/28/2005 10:00:00 AM

Lot-Sample No.: J5G080357-1

Report No.: 30046

Received Date: 6/30/2005 9:45:00 AM

Client Sample ID: P5F1168-01 *Joclyn*

COC No.:

Matrix: WATER

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2σ) | Total Uncert(2σ) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rs MDC, RsV TotUcert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|------------|------|------------------|----------------------|---------------------|------------------------|----------------|----------------------|---------------------|---------------|--------------|------------------|
| Batch: 5192314 | RICHRC5014 | | | | | | | | | | | |
| ALPHA | 0.609 | U | 1.3 | 1.3 | 2.91 | pCi/L | 100% | 0.21 | 7/25/05 04:59 p | | 0.1945 | GPC10D |
| | | | | Work Order: HESHV1AD | | Report DB ID: 9HESHV10 | | | | | | |
| | | | | | | 1.08 | 3.0 | 0.95 | | | L | |
| Batch: 5192316 | RICHRC5058 | | | | | | | | | | | |
| TOTAL-URANIUM | 0.0622 | U | | 0.0087 | 0.0819 | ug/L | | 0.76 | 8/2/05 10:01 a | | 0.0256 | KPAW3 |
| | | | | Work Order: HESHV1AA | | Report DB ID: 9HESHV10 | | | | | | |
| | | | | | | 0.029 | 1.0 | (18.7) | | | ML | |
| Batch: 5193385 | RICHRC5011 | | | | | | | | | | | |
| TH-228 | -0.12 | U | 0.098 | 0.098 | 0.777 | pCi/L | 45% | -0.15 | 7/29/05 03:50 p | | 0.1983 | ALP171 |
| | | | | Work Order: HESHV1AC | | Report DB ID: 9HESHV10 | | | | | | |
| | | | | | | 0.254 | 1.0 | -(2.4) | | | L | |
| TH-230 | 0.0 | U | 0.0 | 0.24 | 0.26 | pCi/L | 45% | 0. | 7/29/05 03:50 p | | 0.1883 | ALP171 |
| | | | | | | | 1.0 | 0. | | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.24 | 0.26 | pCi/L | 45% | 0. | 7/29/05 03:50 p | | 0.1883 | ALP171 |
| | | | | | | | 1.0 | 0. | | | L | |

No. of Results: 5 Comments:

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rpISTLRchSample
V4.14.1 A97

MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

FORM I
SAMPLE RESULTS

Date: 28-Sep-05

Lab Name: STL Richland

SDG: 29895

Collection Date: 6/28/2005 10:00:00 AM

Lot-Sample No.: J5I120148-1

Report No.: 30046

Received Date: 6/30/2005 9:45:00 AM

Client Sample ID: P5F1168-01 *Joclyn*

COC No.:

Matrix: WATER

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Ret/MDC, Rst/TotUncert | Analysis, Prep Date | Total Sa Size | Allquot Size | Primary Detector |
|-------------------|------------|------|--------------------|--------------------|----------------------|--------------|----------------|------------------------|---------------------|---------------|--------------|------------------|
| Batch: 5256373 | RICHRC5011 | | | | Work Order: HKC611AC | | | Report DB ID: 8HKC6110 | | | | |
| TH-228 | -0.0359 | U | 0.041 | 0.042 | 0.377 | pCi/L | 79% | -0.1 | 9/22/05 07:05 p | | 0.1968 | ALP171 |
| | | | | | | 0.108 | 1.0 | -(1.7) | | | L | |
| TH-230 | 0.251 | U | 0.25 | 0.25 | 0.308 | pCi/L | 79% | 0.81 | 9/22/05 07:05 p | | 0.1968 | ALP171 |
| | | | | | | 0.0802 | 1.0 | (2.) | | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.13 | 0.148 | pCi/L | 79% | 0. | 9/22/05 07:05 p | | 0.1968 | ALP171 |
| | | | | | | | 1.0 | 0. | | | L | |
| Batch: 5256385 | RICHRC5058 | | | | Work Order: HKC611AA | | | Report DB ID: 8HKC6110 | | | | |
| TOTAL-URANIUM | 0.00428 | U | | 0.00075 | 0.0733 | ug/L | | 0.06 | 9/22/05 05:41 p | | 0.0286 | KPAW3 |
| | | | | | | 0.0259 | 1.0 | (11.4) | | | ML | |
| No. of Results: 4 | Comments: | | | | | | | | | | | |

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STL Richland
rptSTLRichSample
V4.14.1 A97

MDC|MDA, Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

**FORM I
SAMPLE RESULTS**

Date: 28-Sep-05

Lab Name: STL Richland
 Lot-Sample No.: J5G080357-2
 Client Sample ID: P5F1168-02 *Wolfe*

SDG: 29403
 Report No.: 30046
 COC No.:

Collection Date: 6/28/2005 10:55:00 AM
 Received Date: 6/30/2005 9:45:00 AM
 Matrix: WATER

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2σ) | Total Uncert(2σ) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rs MDC, Rsv TotUcert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|----------------|------------|------|------------------|------------------|----------------------|--------------|----------------|------------------------|---------------------|---------------|--------------|------------------|
| Batch: 5192314 | RICHRC5014 | | | | Work Order: HE5LT1AD | | | Report DB ID: 9HE5LT10 | | | | |
| ALPHA | -0.0276 | U | 0.82 | 0.82 | 2.6 | pCi/L | 100% | -0.01 | 7/25/05 04:59 p | | 0.1975 | GPC10E |
| | | | | | | | 0.929 | 3.0 | | | L | |
| Batch: 5192316 | RICHRC5058 | | | | Work Order: HE5LT1AA | | | Report DB ID: 9HE5LT10 | | | | |
| TOTAL-URANIUM | 1.37 | | | 0.14 | 0.0842 | ug/L | | (16.2) | 8/2/05 10:07 a | | 0.0249 | KPAW3 |
| | | | | | | | 0.0298 | 1.0 | | | ML | |
| Batch: 5193385 | RICHRC5011 | | | | Work Order: HE5LT1AC | | | Report DB ID: 9HE5LT10 | | | | |
| TH-228 | -0.0281 | U | 0.056 | 0.056 | 0.672 | pCi/L | 40% | -0.04 | 7/29/05 03:50 p | | 0.1993 | ALP173 |
| | | | | | | | 0.146 | 1.0 | | | L | |
| TH-230 | -0.0271 | U | 0.054 | 0.054 | 0.648 | pCi/L | 40% | -0.04 | 7/29/05 03:50 p | | 0.1993 | ALP173 |
| | | | | | | | 0.141 | 1.0 | | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.33 | 0.367 | pCi/L | 40% | 0 | 7/29/05 03:50 p | | 0.1993 | ALP173 |
| | | | | | | | 1.0 | 0 | | | L | |

AMENDED REPORT

No. of Results: 5 Comments:

STL Richland MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.
 V4.14.1 A97

FORM I
SAMPLE RESULTS

Date: 28-Sep-05

Lab Name: STL Richland
Lot-Sample No.: J5I120148-2
Client Sample ID: P5F1168-02 *Wolfe*

SDG: 29895
Report No.: 30046
COC No.:

Collection Date: 6/28/2005 10:55:00 AM
Received Date: 6/30/2005 9:45:00 AM
Matrix: WATER

Ordered by Client Sample ID, Batch No.

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, Lc | Yield CRDL(RL) | Rst/MDC, Rst/TotUcert | Analysis, Prep Date | Total Sa Size | Allquot Size | Primary Detector |
|----------------|------------|------|--------------------|--------------------|----------------------|--------------|----------------|------------------------|---------------------|---------------|--------------|------------------|
| Batch: 5256373 | RICHRC5011 | | | | Work Order: HKC621AC | | | Report DB ID: 9HKC6210 | | | | |
| TH-228 | 0.587 | U | 1.2 | 1.2 | 1.59 | pCi/L | 70% | 0.37 | 9/22/05 07:05 p | | 0.0284 | ALP173 |
| | | | | | | | 1.0 | 1. | | | L | |
| TH-230 | 0.0 | U | 0.0 | 1.3 | 1.45 | pCi/L | 70% | 0. | 9/22/05 07:05 p | | 0.0284 | ALP173 |
| | | | | | | | 1.0 | 0. | | | L | |
| TH-232 | 0.0 | U | 0.0 | 1.3 | 1.45 | pCi/L | 70% | 0. | 9/22/05 07:05 p | | 0.0284 | ALP173 |
| | | | | | | | 1.0 | 0. | | | L | |
| Batch: 5256385 | RICHRC5058 | | | | Work Order: HKC621AA | | | Report DB ID: 9HKC6210 | | | | |
| TOTAL-URANIUM | 0.635 | J | | 0.065 | 0.0815 | ug/L | | (7.8) | 9/22/05 05:47 p | | 0.0257 | KPAW3 |
| | | | | | | | 0.0288 | 1.0 | | | ML | |
| | | | | | | | | (19.5) | | | | |

AMENDED REPORT

No. of Results: 4 Comments:

STL Richland MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
rptSTLRichSample J Qual - No U|< qualifier has been assigned and the result is below the Reporting Limit, RL (CRDL) or Report Value is Estimated.
V4.14.1 A97 U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

FORM II

Date: 28-Sep-05

DUPLICATE RESULTS

Lab Name: STL Richland
 Lot-Sample No.: J5F290383-1
 Client Sample ID: 96100T DUP

SDG: 29339
 Report No.: 30046
 COC No.:

Collection Date: 6/28/2005
 Received Date: 6/29/2005 10:30:00 AM
 Matrix: WATER

| Parameter | Result, Orig Rst | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC(MDA, Action Lev | Rpt Unit, CRDL | Yield | Rs/MDC, Rs/TotUcert | Analysis, Prep Date | Total Sa Size | Allquot Size | Primary Detector |
|----------------|------------------|------|-------------------|--------------------|---------------------|----------------|-------|---------------------|---------------------|---------------|--------------|------------------|
| Batch: 5192314 | RICHRC5014 | | | | | | | | | | | |
| ALPHA | 13.0 | | 3.8 | 4.6 | 2.42 | pCi/L | 100% | (5.4) | 7/25/05 04:59 p | | 0.1963 | GPC10C |
| | 13.3 | | RER2 0.1 | | | 3.0 | | (5.7) | | | L | |
| Batch: 5192316 | RICHRC5058 | | | | | | | | | | | |
| TOTAL-URANIUM | 30.5 | | | 3.7 | 0.0859 | ug/L | | (354.7) | 8/2/05 09:59 a | | 0.0244 | KPAW3 |
| | 30.0 | | RER2 0.2 | | | 1.0 | | (16.5) | | | ML | |

No. of Results: 2 Comments:

AMENDED REPORT

STL Richland RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPU)+sq(TPUd))] as defined by ICPT BOA.
 rptSTLRchDupV4.1 MDC(MDA,Le - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 4.1 A97

FORM II

Date: 28-Sep-05

DUPLICATE RESULTS

Lab Name: STL Richland
 Lot-Sample No.: J5G080357-1
 Client Sample ID: P5F1168-01 DUP

SDG: 29403
 Report No.: 30046
 COC No.:

Collection Date: 6/28/2005 10:00:00 AM
 Received Date: 6/30/2005 9:45:00 AM
 Matrix: WATER

| Parameter | Result, Orig Rst | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Action Lev | Rpt Unit, CRDL | Yield | Rst/MDC, Rst/TotUcert | Analysis, Prep Date | Total Sa Size | Alliquot Size | Primary Detector |
|---------------------------------|------------------|------|-------------------|--------------------|----------------------|------------------------|-------|-----------------------|-------------------------|---------------|---------------|------------------|
| Batch: 5183385 | RICHRC5011 | | | | Work Order: HE5HV1AE | Report DB ID: HE5HV1ER | | | Orig Sa DB ID: 8HE5HV10 | | | |
| TH-228 | -0.0283 | U | 0.04 | 0.04 | 0.4 | pCi/L | 59% | -0.07 | 7/29/05 03:50 p | | 0.2022 | ALP172 |
| | -0.12 | U | RER2 1.7 | | | 1.0 | | -(1.4) | | | L | |
| TH-230 | 0.136 | U | 0.19 | 0.19 | 0.185 | pCi/L | 59% | 0.74 | 7/29/05 03:50 p | | 0.2022 | ALP172 |
| | 0.0 | U | RER2 0.9 | | | 1.0 | | (1.4) | | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.17 | 0.185 | pCi/L | 59% | 0. | 7/29/05 03:50 p | | 0.2022 | ALP172 |
| | 0.0 | U | RER2 0.0 | | | 1.0 | | 0. | | | L | |
| Alpha Spec Result Sum = 1.1E-01 | | | | | | | | | | | | |
| Batch: 5256373 | RICHRC5011 | | | | Work Order: HKC611AD | Report DB ID: HKC611DR | | | Orig Sa DB ID: 8HKC6110 | | | |
| TH-228 | -0.0154 | U | 0.031 | 0.031 | 0.368 | pCi/L | 60% | -0.04 | 9/22/05 07:05 p | | 0.1949 | ALP172 |
| | -0.0359 | U | RER2 0.8 | | | 1.0 | | -1. | | | L | |
| TH-230 | 0.0 | U | 0.0 | 0.17 | 0.19 | pCi/L | 60% | 0. | 9/22/05 07:05 p | | 0.1949 | ALP172 |
| | 0.251 | U | RER2 1.7 | | | 1.0 | | 0. | | | L | |
| TH-232 | -0.014 | U | 0.028 | 0.028 | 0.336 | pCi/L | 60% | -0.04 | 9/22/05 07:05 p | | 0.1949 | ALP172 |
| | 0.0 | U | RER2 0.2 | | | 1.0 | | -1. | | | L | |
| Alpha Spec Result Sum = 7.9E-02 | | | | | | | | | | | | |

No. of Results: 8 Comments:

STL Richland RER2 - Replicate Error Ratio = $(S-D)/\sqrt{((SQ(TPU_s))^2 + (SQ(TPU_d))^2)}$ as defined by ICPT BOA.
 rptSTLRchDupV4.1 MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 4.1 A97 U Qual - Analyzed for, but the result is less than the Mdc/Mda|Total Uncert or gamma scan software did not identify the nuclide.

AMENDED REPORT

FORM II
BLANK RESULTS

Date: 28-Sep-05

Lab Name: STL Richland
Matrix: WATER

SDG: 29403
Report No.: 30046

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Lc | Rpt Unit, CRDL | Yield | Rst/MDC, Rst/TotUcert | Analysis, Prep Date | Total Sa Size | Aliquot Size | Primary Detector |
|---|---------|------|--------------------|--------------------|-------------|----------------|-------|-----------------------|---------------------|---------------|--------------|------------------|
| Batch: 5193385 RICHRC5011 Work Order: HFAXP1AA Report DB ID: HFAXP1AB | | | | | | | | | | | | |
| TH-228 | -0.0454 | U | 0.091 | 0.091 | 1.09 | pCi/L | 24% | -0.04 | 7/29/05 03:50 p | | 0.2055 | ALP174 |
| | | | | | 0.236 | 1.0 | | -1. | | | L | |
| TH-230 | 0.0 | U | 0.0 | 0.54 | 0.593 | pCi/L | 24% | 0. | 7/29/05 03:50 p | | 0.2055 | ALP174 |
| | | | | | | 1.0 | | 0. | | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.54 | 0.593 | pCi/L | 24% | 0. | 7/29/05 03:50 p | | 0.2055 | ALP174 |
| | | | | | | 1.0 | | 0. | | | L | |
| Batch: 5256373 RICHRC5011 Work Order: HKFGT1AA Report DB ID: HKFGT1AB | | | | | | | | | | | | |
| TH-228 | 0.0 | U | 0.0 | 0.23 | 0.254 | pCi/L | 64% | 0. | 9/22/05 07:05 p | | 0.1958 | ALP174 |
| | | | | | | 1.0 | | 0. | | | L | |
| TH-230 | 0.0855 | U | 0.17 | 0.17 | 0.232 | pCi/L | 64% | 0.37 | 9/22/05 07:05 p | | 0.1958 | ALP174 |
| | | | | | | 1.0 | | 1. | | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.21 | 0.232 | pCi/L | 64% | 0. | 9/22/05 07:05 p | | 0.1958 | ALP174 |
| | | | | | | 1.0 | | 0. | | | L | |
| Batch: 5192314 RICHRC5014 Work Order: HE7701AA Report DB ID: HE7701AB | | | | | | | | | | | | |
| ALPHA | 0.189 | U | 0.39 | 0.39 | 0.876 | pCi/L | 100% | 0.22 | 7/25/05 06:09 p | | 0.2028 | GFC10C |
| | | | | | 0.31 | 3.0 | | 0.97 | | | L | |
| Batch: 5192316 RICHRC5058 Work Order: HE7771AA Report DB ID: HE7771AB | | | | | | | | | | | | |
| TOTAL-URANIUM | 0.0244 | U | | 0.0029 | 0.0835 | ug/L | | 0.29 | 8/2/05 09:15 a | | 0.0251 | KPAW3 |
| | | | | | 0.0295 | 1.0 | | (16.7) | | | ML | |
| Batch: 5256385 RICHRC5058 Work Order: HKFHV1AA Report DB ID: HKFHV1AB | | | | | | | | | | | | |
| TOTAL-URANIUM | 0.00265 | U | | 0.00075 | 0.0855 | ug/L | | 0.03 | 9/22/05 05:27 p | | 0.0245 | KPAW3 |
| | | | | | 0.0303 | 1.0 | | (7.1) | | | ML | |

STL Richland MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
rptSTLRchBlank U Qual - Analyzed for, but the result is less than the Mdc|Mda|Total Uncert or gamma scan software did not identify the nuclide.
V4.14.1 A97

AMENDED REPORT

FORM II
BLANK RESULTS

Date: 28-Sep-05

Lab Name: STL Richland
Matrix: WATER

SDG: 29895
Report No. : 30046

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA, Le | Rpt Unit, CRDL | Yield | Rs/MDC, Rs/TotUcert | Analysis, Prep Date | Total Sa Size | Allquot Size | Primary Detector |
|-------------------|-----------|------|-------------------|-------------------|-------------|----------------|-------|---------------------|---------------------|---------------|--------------|------------------|
| No. of Results: 9 | Comments: | | | | | | | | | | | |

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AMENDED REPORT

STL Richland MDC|MDA,Le - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
rptSTLRchBlank
V4.14.1 A97

FORM II
LCS RESULTS

Date: 28-Sep-05

Lab Name: STL Richland

SDG: 29403

Matrix: WATER

Report No. : 30046

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA | Report Unit | Yield | Expected | Expected Uncert | Recovery, Bias | Analysis, Prep Date | Allquot Size | Primary Detector |
|----------------|------------|------|-------------------|-------------------|---------|-------------|---------------|----------|-----------------|----------------|---------------------|--------------|------------------|
| Batch: 5193385 | RICHRC5011 | | | | | | | | | | | | |
| TH-228 | -0.0368 | U | 0.052 | 0.052 | 0.52 | pCi/L | 47% | | | | 7/29/05 03:50 p | 0.2013 | ALP175 |
| | | | | | | | Rec Limits: | 70 | 130 | | | L | |
| TH-230 | 9.85 | | 1.9 | 2.3 | 0.425 | pCi/L | 47% | 11.4 | 0.34 | 85% | 7/29/05 03:50 p | 0.2013 | ALP176 |
| | | | | | | | Rec Limits: | 70 | 130 | -0.2 | | L | |
| TH-232 | 0.0 | U | 0.0 | 0.22 | 0.24 | pCi/L | 47% | | | | 7/29/05 03:50 p | 0.2013 | ALP175 |
| | | | | | | | Rec Limits: | 70 | 130 | | | L | |
| Batch: 5256373 | RICHRC5011 | | | | | | | | | | | | |
| TH-230 | 4.68 | U | 5.3 | 5.3 | 7.35 | pCi/L | 3% | 11.0 | 0.33 | 43% | 9/22/05 07:05 p | 0.2068 | ALP175 |
| | | | | | | | Rec Limits: | 70 | 130 | -0.6 | | L | |
| Batch: 5192314 | RICHRC5014 | | | | | | | | | | | | |
| ALPHA | 23.0 | | 3.1 | 5.8 | 1.08 | pCi/L | 100% | 22.9 | 0.74 | 100% | 7/25/05 06:09 p | 0.1995 | GPC10D |
| | | | | | | | Rec Limits: | 70 | 130 | 0.0 | | L | |
| Batch: 5192318 | RICHRC5058 | | | | | | | | | | | | |
| TOTAL-URANIUM | 38.0 | | | 4.6 | 0.0832 | ug/L | | 36.9 | 0.22 | 103% | 8/2/05 09:22 a | 0.0252 | KPAW3 |
| | | | | | | | Rec Limits: | 70 | 130 | 0.0 | | ML | |
| Batch: 5192316 | RICHRC5058 | | | | | | | | | | | | |
| TOTAL-URANIUM | 36.1 | | | 3.7 | 0.0832 | ug/L | | 36.9 | 0.22 | 98% | 8/2/05 09:25 a | 0.0252 | KPAW3 |
| | | | | | | | Rec Limits: | 70 | 130 | 0.0 | | ML | |
| Batch: 5256385 | RICHRC5058 | | | | | | | | | | | | |
| TOTAL-URANIUM | 30.7 | | | 3.6 | 0.0866 | ug/L | | 37.4 | 0.23 | 82% | 9/22/05 05:33 p | 0.0242 | KPAW3 |
| | | | | | | | Rec Limits: | 70 | 130 | -0.2 | | ML | |
| Batch: 5256385 | RICHRC5058 | | | | | | | | | | | | |
| | | | | | | | Work Order: | HKFHV1AD | | | | | |
| | | | | | | | Report DB ID: | HKFHV1DS | | | | | |

STL Richland
rptSTLRichLcs
V4.14.1 A97

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
U Qual - Analyzed for, but the result is less than the Mdc|Mda|Total Uncert or gamma scan software did not identify the nuclide.

AMENDED REPORT

FORM II
LCS RESULTS

Date: 28-Sep-05

Lab Name: STL Richland

SDG: 29895

Matrix: WATER

Report No. : 30046

| Parameter | Result | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA | Report Unit | Yield | Expected | Expected Uncert | Recovery, Bias | Analysis, Prep Date | Allquot Size | Primary Detector |
|-------------------|--------|-----------|-------------------|-------------------|---------|-------------|-------------|----------|-----------------|----------------|---------------------|--------------|------------------|
| TOTAL-URANIUM | 29.1 | | | 3.0 | 0.0866 | ug/L | | 37.4 | 0.23 | 78% | 9/22/05 05:36 p | 0.0242 | KPAW3 |
| | | | | | | | Rec Limits: | 70 | 130 | -0.2 | | | |
| No. of Results: 9 | | Comments: | | | | | | | | | | | |

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AMENDED REPORT

STL Richland Bias - (Result/Expected)-1 as defined by ANSI N13.30.
rpISTLRchLcs
V4.14.1 A97

FORM II
MATRIX SPIKE RESULTS

Date: 28-Sep-05

Lab Name: STL Richland

SDG: 29339

Lot-Sample No.: J5F290383-1

Report No. : 30046

Matrix: WATER

| Parameter | SpikeResult, Orig Rst | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC MDA | Rpt Unit, CRDL | Yield | Rec- overy | Exp- ected | Exp Uncert | Analysis, Prep Date | Allquot Size | Primary Detector |
|-------------------|--------------------------|------|----------------------|----------------------|---------|------------------------|-------|-------------------------|---------------|---------------|------------------------|-----------------|---------------------|
| Batch: 5192314 | RICHRC5014 | | | Work Order: HEMPK1AF | | Report DB ID: HEMPK1FW | | Orig Sa DB ID: 9HEMPK10 | | | | | |
| ALPHA | 68.3 | | 9.1 | 20.0 | 2.23 | pCi/L | 100% | 98.68% | 69.2 | 2.3 | 7/25/05 04:59 p | 0.1959 | GPC10B |
| | 13.3 | RER2 | | | | | | | | | | L | |
| Batch: 5192318 | RICHRC5058 | | | Work Order: HEMPK1AH | | Report DB ID: HEMPK1HW | | Orig Sa DB ID: 9HEMPK10 | | | | | |
| TOTAL-URANIUM | 33.8 | | | 8.5 | 0.0791 | ug/L | | 98.25% | 35.1 | 0.21 | 8/2/05 09:52 a | 0.0265 | KPAW3 |
| | 30.0 | RER2 | | | | | | | | | | ML | |
| No. of Results: 2 | Comments: | | | | | | | | | | | | |

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AMENDED REPORT

STL Richland RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPU_s)+sq(TPU_d))] as defined by ICPT BOA.
 rptSTLRchMs Bias - (Result/Expected)-1 as defined by ANSI N13.30.
 V4.14.1 A97

FORM II
MATRIX SPIKE RESULTS

Date: 28-Sep-05

Lab Name: STL Richland

SDG: 29895

Lot-Sample No.: J5I120148-2

Report No. : 30046

Matrix: WATER

| Parameter | SpikeResult, Orig Rst | Qual | Count Error (2 s) | Total Uncert(2 s) | MDC/MDA | Rpt Unit, CRDL | Yield | Rec- overy | Exp- ected | Exp Uncert | Analysis, Prep Date | Allquot Size | Primary Detector |
|-------------------|--------------------------|-----------|----------------------|----------------------|---------|------------------------|-------|-------------------------|---------------|---------------|------------------------|-----------------|---------------------|
| Batch: 5256385 | RICHRC5058 | | | | | | | | | | | | |
| | | | | Work Order: HKC621AD | | Report DB ID: HKC621DW | | Orig Sa DB ID: 9HKC6210 | | | | | |
| TOTAL-URANIUM | 3.95 | | | 0.55 | 0.0104 | ug/L | | 88.35% | 4.47 | 0.027 | 9/22/05 05:52 p | 0.2015 | KPAW3 |
| | 0.635 | RER2 | 12.0 | | | | | | | | | ML | |
| No. of Results: 1 | | Comments: | | | | | | | | | | | |

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AMENDED REPORT

STL Richland
rptSTLRchMs
V4.14.1 A97

RER - Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{sq}(TPUs)+\text{sq}(TPUd))]$ as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.

NCA 29101

AMENDED REPORT

SDC 29403

SUBCONTRACT ORDER

JSU 080357

6xLP

North Creek Analytical - Portland
P5F1168

Du 08 05 05

SENDING LABORATORY:

North Creek Analytical - Portland
9405 SW Nimbus Ave.
Beaverton, OR 97008
Phone: (503) 906-9200
Fax: (503) 906-9210
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Severn Trent Laboratories - Richland
2800 George Washington Way
Richland, WA 99354-1613
Phone :509-375-3131
Fax: 509-375-5590

| Analysis | Due | Expires | Laboratory ID | Comments |
|-----------------------------|----------------------|------------------------|---------------|---|
| Sample ID: P5F1168-01 | Water | Sampled:06/28/05 10:00 | [REDACTED] | |
| Subcontract Outside3 | 07/13/05 16:00 | 06/29/05 10:00 | | Alpha-STL Richland |
| Subcontract Outside2 | 07/13/05 16:00 | 06/29/05 10:00 | | Diss Uranium/Tharinon, please filter-STL Richland |
| Subcontract Outside | 07/13/05 16:00 | 12/25/05 10:00 | | Total Uranium/Tharinon-STL Richland |
| <i>Containers Supplied:</i> | | | | |
| 1L Poly - Unpres (A) | 1L Poly - Unpres (B) | 1L Poly - Unpres (C) | | |
| Sample ID: P5F1168-02 | Water | Sampled:06/28/05 10:55 | [REDACTED] | |
| Subcontract Outside3 | 07/13/05 16:00 | 06/29/05 10:55 | | Alpha-STL Richland |
| Subcontract Outside2 | 07/13/05 16:00 | 06/29/05 10:55 | | Diss Uranium/Tharinon, please filter-STL Richland |
| Subcontract Outside | 07/13/05 16:00 | 12/25/05 10:55 | | Total Uranium/Tharinon-STL Richland |
| <i>Containers Supplied:</i> | | | | |
| 1L Poly - Unpres (A) | 1L Poly - Unpres (B) | 1L Poly - Unpres (C) | | |

Released By: Kanisa Evan Date: 10/29/05
 Received By: [Signature] Date: 06/30/05 0945

Released By: _____ Date: _____
 Received By: _____ Date: _____

