S

ENGINEERING CHANGE NOTICE

Page 1 of 21. ECN **633324**Proj.
ECN

2. ECN Category (mark one) Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersede ☐ Cancel/Void ☐	3. Originator's Name, Organization, MSIN, and Telephone No. Franciska H. Steen, Production Planning and Control, T6-06, 372-2495		4. USQ Required? ☐ Yes ☒ No	5. Date 09/25/96
	6. Project Title/No./Work Order No. Tank 241-U-106		7. Bldg./Sys./Fac. No. 241-U-106	8. Approval Designator Q
	9. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-WM-DP-191, Rev. 0		10. Related ECN No(s). N/A	11. Related PO No. N/A
12a. Modification Work ☐ Yes (fill out Blk. 12b) ☒ No (NA Blks. 12b, 12c, 12d)	12b. Work Package No. N/A	12c. Modification Work Complete N/A Design Authority/Cog. Engineer Signature & Date	12d. Restored to Original Condition (Temp. or Standby ECN only) N/A Design Authority/Cog. Engineer Signature & Date	
13a. Description of Change This ECN is being generated in order to update/add additional information to the existing document.				
13b. Design Baseline Document? ☐ Yes ☒ No				
14a. Justification (mark one) Criteria Change ☒ Design Improvement ☐ Environmental ☐ Facility Deactivation ☐ As-Found ☐ Facilitate Const ☐ Const. Error/Omission ☐ Design Error/Omission ☐				
14b. Justification Details This ECN will assist in the completion of the documentation process for this document.				
15. Distribution (include name, MSIN, and no. of copies) See attached distribution.			RELEASE STAMP DATE: STA: 4 SEP 27 1996 HANFORD RELEASE ID: 2	

ECN-633324

A-7900-013-3 (05/96) GEF096

Tank 241-U-106, Cores 147 and 148, Analytical Results for the Final Report

Franciska H. Steen

Westinghouse Hanford Company, Richland, WA 99352

U.S. Department of Energy Contract DE-AC06-87RL10930

EDT/ECN: ECN-633324

UC: 2070

Org Code: 75725

Charge Code: MD378

B&R Code: EW 3120074

Total Pages: 1352

Key Words: Tank 241-U-106, Tank U-106, U-106, U Farm, Core 147, Core 148, Analytical Results, Final Report, Final

Abstract: N/A

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

Printed in the United States of America. To obtain copies of this document, contact: WHC/BCS Document Control Services, P.O. Box 1970, Mailstop B6-08, Richland WA 99352, Phone (509) 372-2420; Fax (509) 376-4989.

Release Approval

Date

Approved for Public Release

Westinghouse
Hanford Company

P.O. Box 1970 Richland, WA 99352

WHC-SD-WM-DP-191, REV. 1

ANALYTICAL SERVICES

TANK 241-U-106, CORES 147 AND 148
ANALYTICAL RESULTS FOR THE FINAL REPORT

Project Coordinator: FRANCISKA H. STEEN

Prepared for the U.S. Department of Energy
Office of Environmental Restoration
and Waste Management

by

222-S Laboratory
Westinghouse Hanford Company
Box 1970
Richland, Washington

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

Narrative	1
U-106 Sample Breakdown (Attachment 1)	13
Progagating Reactive System Screening Tool	27
Sample Data Summary	65
Photographs	111
U-106 Extrusion Reports	123
Sample Handling	136
Extrusion Worklist # 8675 (2811)	138
Extrusion Worklist # 8676 (2812)	139
Extrusion Worklist # 8677 (2813)	140
Extrusion Worklist # 8678 (2818)	141
Extrusion Worklist # 8679 (2919)	142
Extrusion Worklist # 8680 (2820)	143
Extrusion Worklist # 8688 (2824)	144
Extrusion Worklist # 8942 (2857)	145
Extrusion Worklist # 8943 (2858)	146
Sample Preparations	147
Fusion Digestion Worklist # 9468 (3079, 3080, 3083)	149
Fusion Digestion Worklist # 9469 (3081, 3084, 3082, 3085)	150
Fusion Digestion Worklist # 9474 (3026, 3029, 3030)	152
Fusion Digestion Worklist # 9475 (3031, 3032, 3033)	153
Fusion Digestion Worklist # 9476 (3034, 3035)	154
Fusion Digestion Worklist # 10956 (3878, 3884)	155
Water Digestion Worklist # 9471 (3093, 3094)	156
Water Digestion Worklist # 9472 (3095, 3096)	157
Water Digestion Worklist # 9473 (3097, 3098, 3099)	158
Water Digestion Worklist # 9479 (3028, 3043)	159
Water Digestion Worklist # 9480 (3044, 3045)	160
Water Digestion Worklist # 9481 (3046, 3047)	161
Water Digestion Worklist # 9482 (3048, 3049)	162
Water Digestion Worklist # 10958 (3879, 3880, 3885, 3886)	163
Acid Digestion Worklist # 9470 (3086, 3087, 3088, 3089, 3090, 3091, 3092)	165
Acid Digestion Worklist # 9477 (3027, 3036, 3037, 3038)	168
Acid Digestion Worklist # 9478 (3039, 3040, 3041, 3042)	170
Acid Digestion Worklist # 10957 (3887, 3888)	172

TABLE OF CONTENTS (Continued)

Bulk Density Worklists	173
Inorganic Analyses	188
Differential Scanning Calorimetry (DSC)	
DSC Worklist # 11662 (3876, 3882)	190
DSC Worklist # 12418 (3876, 3882)	197
Thermogravimetric Analysis (TGA)	
TGA Worklist # 11655 (3876, 3882)	198
Specific Gravity Analysis (SpG)	
SpG Worklist # 10598 (3063, 3064)	205
Cyanide Analysis (CN)	
CN Worklist # 11327 (3071)	213
CN Worklist # 11709 (3066, 3067)	217.1
CN Worklist # 11711 (3070, 3068, 3069)	218
CN Worklist # 12653 (3010, 3011, 3012, 3013)	230
CN Worklist # 12957 (3014, 3015)	244
CN Worklist # 12958 (3016, 3065)	256
Ion Chromatographic Analysis (IC)	
IC Worklist # 10597 (3063, 3064)	269
IC Worklist # 10803 (2860, 3051)	281
IC Worklist # 10938 (3028, 3043)	292
IC Worklist # 10939 (3044, 3045)	303
IC Worklist # 10940 (3046, 3047)	315
IC Worklist # 10941 (3093, 3094)	327
IC Worklist # 10942 (3096, 3095)	339
IC Worklist # 10943 (3099, 3097, 3098)	351
IC Worklist # 12204 (3885)	365
IC Worklist # 12421 (3879)	375
IC Worklist # 12474 (3048, 3049)	386
Inductively Coupled Plasma Spectroscopy Analysis (ICP)	
ICP Worklist # 10693 (3063, 3064)	398
ICP Worklist # 10857 (2860, 3051)	421
ICP Worklist # 10928 (3079, 3080, 3083)	442
ICP Worklist # 10929 (3081, 3082, 3084, 3085)	449
ICP Worklist # 10948 (3086, 3087, 3088, 3089, 3090, 3091, 3092)	458
ICP Worklist # 10949 (3027, 3036, 3037, 3038)	469
ICP Worklist # 10950 (3029, 3030)	478
ICP Worklist # 11037 (3039, 3040, 3041, 3042)	485
ICP Worklist # 11039 (3031, 3032, 3033)	494
ICP Worklist # 11042 (3034, 3035)	501
ICP Worklist # 11838 (3026)	508

TABLE OF CONTENTS (Continued)

Uranium Analysis (U)	
U Worklist # 12211 (3878, 3884)	1129
Part II 45-Day Safety Screening Results for Tank 241-U-106, Push Mode Cores 147 and 148	
Narrative	2-1
U-106 Sample Breakdown (Attachment 1)	2-9
Sample Data Summary	2-21
Chain of Custody Forms	2-33
Inorganic Analyses	2-45
Differential Scanning Calorimetry (DSC)	
DSC Worklist # 10567 (3067, 3070)	2-47
DSC Worklist # 10568 (3065, 3066)	2-55
DSC Worklist # 10569 (3063, 3064)	2-61
DSC Worklist # 10570 (3068, 3069)	2-67
DSC Worklist # 10572 (3071)	2-73
DSC Worklist # 10765 (3063, 3064, 3071)	2-77
DSC Worklist # 10772 (2860, 3051)	2-79
DSC Worklist # 10774 (3011)	2-87
DSC Worklist # 10776 (3012, 3013)	2-92
DSC Worklist # 10778 (3014, 3015)	2-98
DSC Worklist # 10780 (3016, 3017)	2-105
DSC Worklist # 10843 (3010)	2-111
DSC Worklist # 10913 (3067, 3068, 3069, 3070, 3011)	2-115
DSC Worklist # 10916 (2860, 3051, 3012, 3013, 3014, 3015, 3016, 3017)	2-116
DSC Worklist # 10930 (3010, 3065, 3066)	2-119
Thermogravimetric Analysis (TGA)	
TGA Worklist # 10574 (3067, 3070)	2-121
TGA Worklist # 10575 (3065, 3066)	2-129
TGA Worklist # 10576 (3063, 3064)	2-135
TGA Worklist # 10577 (3068, 3069)	2-141
TGA Worklist # 10578 (3071)	2-149
TGA Worklist # 10773 (2860, 3051)	2-153
TGA Worklist # 10775 (3010, 3011)	2-160
TGA Worklist # 10777 (3012, 3013)	2-168
TGA Worklist # 10779 (3014, 3015)	2-178
TGA Worklist # 10781 (3016, 3017)	2-181

WHC-SD-WM-DP-191, REV 1.

TABLE OF CONTENTS (Continued)

This Document consists of two sections.

Part I consists of pages 1 through 1141, Pages 2, 14, 28, 66, 112, 123, 137, 148, 174, 189, 788, 789, 790, 791, 792, 793, 794, 795, 796, and 797 were intentionally left blank.

Part II consists of pages 2-1 through 2-186 and pages 2-2, 2-10, 2-22, 2-34, and 2-46 were intentionally left blank.

TRADEMARKS:

Perkin-Elmer is a Registered Trademark of Research and Manufacturing Company, Inc. Mettler is a Registered Trademark of Mettler Electronics

WHC-SD-WM-DP-191, REV. 1

NARRATIVE

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

**TANK 241-U-106, CORES 147 AND 148,
ANALYTICAL RESULTS FOR THE FINAL REPORT**

This document is the final report deliverable for tank 241-U-106 push mode core segments collected between May 8, 1996 and May 10, 1996 and received by the 222-S Laboratory between May 14, 1996 and May 16, 1996. The segments were subsampled and analyzed in accordance with the *Tank 241-U-106 Push Mode Core Sampling and Analysis Plan* (TSAP) (Brown, T.M., 1996), the *Historical Model Evaluation Data Requirements* (Historical DQO) (Simpson, et al., 1995), *Data Quality Objective to Support Resolution of the Organic Complexant Safety Issue* (Organic DQO) (Turner, et al., 1995) and the *Safety Screening Data Quality Objective* (DQO) (Dukelow, et al., 1995). The analytical results are included in Table 1.

Sample Handling

Attachment 1 is a cross reference to relate the tank farm identification numbers to the 222-S Laboratory LABCORE/LIMS sample numbers. These diagrams show the make-up of the core composites and secondary analyses requested. These diagrams and any changes made supersede the diagrams presented in Part II of this document. Sample handling and appearance information for the subsegments can be found in Part II of this document.

Eighteen of the nineteen samples submitted for DSC analysis exceeded the notification limit of 480 Joules/gram (dry weight basis) as stated in the Safety Screening DQO (Dukelow, et al., 1995). Cyanide analysis was requested for these samples, the results are included in this report. Reactive Screening System Tool (RSST) analysis was requested for the sample exhibiting the highest exotherm core 147 segment 5 lower half (S96T004013), results are included in this document.

Two core composites were made, one for each core: 147 and 148. The core composite worksheets are included in this document.

No field blank was provided to the 222-S Laboratory

Analytical Results Summary

The data summary report (Table 1) compiles the analytical results that comply with all applicable DQOs.

Inorganic Analyses

Differential Scanning Calorimetry (DSC)

The DSC analyses were performed on the core composite subsamples. The analyses were performed in duplicate on direct subsamples. The exothermic energy based on dry weight of subsample was calculated for all subsamples. The average of the TGA results for each subsample was used in the dry weight correction for that subsample. The results for all DSC analyses and the raw data for the core composite subsamples are included in this report.

The core composite subsamples exceeded the notification limit of 480 Joules/gram (dry weight basis). Appropriate notifications were made. The standard recoveries and RPDs for this analysis were within the required limits.

Thermogravimetric Analysis (TGA)

The TGA analyses were performed on the core composite subsamples. The analyses were performed in duplicate on direct subsamples. Typically results were determined by summing the weight loss steps which occurred below 200°C; weight loss steps above this were not used to determine the result. The results for all TGA analyses and the raw data for the core composite subsamples are included in this report.

The standard recoveries and RPDs for this analysis were within the required limits.

Sp.G.-Specific Gravity/Bulk Density

Specific gravity analyses were performed on the liquid subsamples. The results are provided in Table 1. The raw data are included in this revision. There are no exceptions to the quality control parameters stated in the TSAP for these samples.

Bulk density analyses were performed on direct solid subsamples. The results and raw data for all subsamples are reported in this revision. There are no exceptions to the quality control parameters stated in the TSAP for these samples.

Inductively Coupled Plasma Spectrophotometry (ICP)

The liquid subsamples were prepared for analysis by an acid adjustment of the direct subsample. This is indicated by a "D" in the aliquot class (A#) column in Table 1. Solid subsamples were prepared for analysis by performing an acid digest as indicated by an "A" in the A# column in Table 1 and fusion preparation as indicated by "F" in the A# column in Table 1.

The QC for all analytes were reviewed for this report. High RPDs were reported for several analytes and were the result of sample inhomogeneity. Reruns were not requested. Table 2 shows a comparison of the result of the sample with that of the serial dilution for those required analytes that had a spike recovery outside the 75% - 125% range as set by the Quality Assurance Plan for the 222-S Laboratories (WHC-SD-CP-QAPP-016). Serial dilutions are performed by diluting a sample fivefold. The results from the serial dilution may be found in the raw data and are signified by an "_L" at the end of the sample number. For acceptable performance the percent difference between the serial dilution and the undiluted results must be ≤ 10 percent. Five samples had serial dilutions greater than ten percent. This inaccuracy can be attributed to the low concentration of the analyte with respect to the detection limit.

Occasional preparation blanks showed results above the detection level. The levels of these contaminants in the preparation blanks are inconsequential when compared to the result for the sample and do not impact sample data quality. The standard recoveries for this analysis were within the required limits.

WHC-SD-WM-DP-191 REV. 1

Table 2. ICP Serial Dilution Raw Results for Tank 241-U-108

Sample ID	Analyte	Sample Result Undiluted (ug/g)	Serial Dilution Result (ug/g)	% Difference
S96T002860	Al	11059.46	10881.98	1.6
S96T002860	K	1673.69	118.56	82.9
S96T002860	Na	211158.33	219850.28	4.1
S96T002860	S	2613.08	2132.71	4.6
S96T003027	Al	138.90	144.70	4.2
S96T003027	Cr	14.42	15.17	5.2
S96T003027	Si	0.57	0.57	0.9
S96T003027	Na	710.60	737.90	3.8
S96T003027	S	10.19	10.54	3.4
S96T003034	Na	448.60	444.40	0.5
S96T003035	Na	493.00	505.50	2.5
S96T003036	Al	47.30	49.15	3.9
S96T003036	P	7.13	7.57	6.2
S96T003036	Si	0.58	0.60	2.7
S96T003036	Na	696.30	721.20	3.6
S96T003036	P	12.53	12.72	1.5
S96T003036	Si	0.78	0.85	11.3
S96T003036	Na	863.80	887.80	2.8
S96T003040	Si	0.83	0.87	4.8
S96T003040	Na	909.90	928.60	2.1
S96T003041	Al	29.85	30.63	2.6
S96T003041	Cr	6.11	6.27	2.7
S96T003041	Fe	7.64	7.98	3.3
S96T003041	Mn	2.29	2.35	2.7
S96T003041	P	8.25	8.36	1.3
S96T003041	Si	0.56	0.62	11.6
S96T003041	Na	844.10	862.90	2.2
S96T003041	S	7.12	7.44	4.4
S96T003051	Al	13192.22	13032.82	1.2
S96T003051	K	2138.57	1365.30	36.1
S96T003051	Na	252568.89	263667.35	4.4
S96T003051	S	3221.42	3268.61	1.5
S96T003063	Al	10725.80	10563.47	1.5
S96T003063	Na	196848.18	207407.75	5.5
S96T003064	Al	13872.21	13557.31	2.3
S96T003064	Cr	1125.93	1109.64	1.4
S96T003064	Fe	847.55	833.26	1.7
S96T003064	Mn	747.32	762.37	2.0
S96T003064	Na	234526.87	237340.19	1.2
S96T003064	S	3181.55	3357.72	5.5
S96T003083	Na	308.40	365.20	0.5
S96T003088	Si	3.17	2.98	6.1
S96T003088	Na	817.10	853.90	4.5
S96T003088	Al	59.73	62.30	4.3
S96T003088	Si	1.17	1.23	4.4
S96T003088	Na	910.80	946.80	4.0
S96T003092	Al	31.25	33.04	5.7
S96T003092	Fe	31.83	33.82	6.3
S96T003092	Si	4.66	4.69	5.0
S96T003092	Na	954.90	1055.00	8.1
S96T003880	Al	41.97	42.38	1.0
S96T003880	Na	919.50	932.30	1.3
S96T003886	Na	961.90	971.30	1.0
S96T003887	Al	57.24	59.97	4.8
S96T003887	Fe	18.30	19.24	5.1
S96T003887	Mn	7.35	7.66	4.5
S96T003887	P	17.64	18.65	5.8
S96T003887	Na	858.50	897.90	4.6
S96T003888	Al	61.02	62.53	2.5
S96T003888	Fe	12.85	13.31	3.6
S96T003888	Mn	4.41	4.54	2.9
S96T003888	P	12.99	13.60	4.7
S96T003888	Ag	0.08	0.07	22.2

$$\% \text{ Difference} = (\text{ABS}(\text{Sample} - \text{Serial})) / \text{Sample} \times 100$$

Ion Chromatography (IC)

The IC analysis was performed on direct subsamples of liquid samples, as indicated by a blank in the A# column in Table 1. The solid subsamples were prepared for analyses by performing a water digest. This is indicated with a "W" in the A# column in Table 1.

High RPDs were reported for three of the subsamples submitted for analysis. These high RPDs were attributed to sample inhomogeneity. Additional reruns would not significantly improve the results due to the difficulty in obtaining representative samples of the material. Six subsamples had spike recoveries outside of the 75% to 125% range on several of the anions. No reruns were requested.

Occasional preparation blanks for chloride and nitrate showed results above the detection level. The levels of these analytes in the preparation blank are inconsequential when compared to the result for the sample. This contamination does not impact sample data quality. The standard recoveries for this analysis were within the required limits.

TIC/TOC - Total Inorganic/Organic Carbon Persulfate

Total Inorganic Carbon (TIC) and Total Organic Carbon (TOC) by persulfate/coulometry analyses were performed in duplicate on direct subsamples. Low concentrations of TIC and TOC were noted in some preparation blanks, however the levels of contamination are inconsequential when compared to the result of the sample and do not impact sample data quality. A high RPDs was reported for one subsample. This was due to sample inhomogeneity. A rerun was not requested. The standard recoveries and spike recoveries for these analyses were within the required limits.

TOC - Total Organic Carbon By Furnace Oxidation

TOC by furnace oxidation analysis was requested as a secondary analysis for the samples that exceeded the DSC notification limits and the TOC by persulfate/coulometry did not account for the high exotherms. This analysis was performed on the four direct liquid subsamples. Low concentrations of TOC were noted in some preparation blanks, however the level is inconsequential when compared to the result of the sample. This contamination does not impact sample data quality. The standard recoveries, spike recoveries and RPDs for this analysis were within the required limits.

CN - Cyanide

Cyanide was requested as a secondary analysis due to the high energetics in the tank samples.

WHC-SD-WM-DP-191, REV. 1

With the subsequent changes to the Organic DQO, the cyanide analyses would not have been required therefore the results are presented in this report as "opportunistic analyses". The cyanide by water method is for the determination of total cyanide in samples that contain only soluble cyanide compounds. The cyanide results ranged from less than 4.23 $\mu\text{g/g}$ to 35.1 $\mu\text{g/g}$. The standard recoveries, spike recoveries and RPDs for these analyses were within the required limits.

Radionuclide Analyses

AT - Total Alpha

Total alpha activity (AT) analysis was performed on the solid core composite subsamples. The samples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in the A# column in Table 1. The results and the raw data for all subsamples are included in this revision. A high RPD was reported for sample S96T003884 and was due to sample inhomogeneity. No rerun was requested. The standard recoveries and spike recoveries for this analysis were within the required limits.

TB - Total Beta

Total beta activity (TB) was performed on the solid core composite subsamples. The samples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in A# column in Table 1. A high RPD was reported for sample S96T003884 and was due to sample inhomogeneity. No rerun was requested. The standard recoveries and spike recoveries for this analysis were within the required limits.

⁹⁰Sr - Strontium 90

⁹⁰Sr analysis was performed on the solid core composite subsamples. The samples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in the A# column in Table 1. The preparation blanks showed results for strontium-90 slightly above the detection level. The levels in the preparation blanks are inconsequential when compared to the results for the samples. These contaminants do not impact sample data quality. A high RPD was reported for sample S96T003884 and was due to sample inhomogeneity. No rerun was requested. The standard recoveries for this analysis were within the required limits.

GEA - Gamma Energy Analysis

GEA analysis was performed on the solid subsamples. The samples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in the

WHC-SD-WM-DP-191, REV. 1

A# column in Table 1.

Only the QC for required analytes (^{137}Cs) were considered in this report. Other "opportunistic" analytes are included but were not reviewed for QC. High RPDs were reported for samples S96T003079 and S96T003884. This was due to sample inhomogeneity and no rerun were requested. The standard recoveries for this analysis were within the required limits.

Actual detection limits for GEA analytes are not currently available. The latest GEA software does not report a minimum detectable activity (MDA). If an analyte is reported as "less than", the value reported is the detection limit.

U - Total Uranium

Uranium analysis was performed on the core composite subsamples. The samples were prepared for analysis by performing a fusion digest in duplicate. The fusion preparation is indicated with an "F" in the A# column in Table 1. The standard recoveries, spike recoveries and RPDs for this analysis were within the required limits.

WHC-SD-WM-DP-191, REV. 1

Procedures

Table 3 lists the analytical procedures used for performing the sample analyses. Abbreviations for analyses are defined in the table notes.

Table 3. Analytical Procedures

Analysis	Sample Portion	Preparation Procedure +	Analysis Procedure
DSC	Solid/Liquid	N/A	LA-514-114 Rev. C-1 LA-514-113 Rev. C-1
TGA	Solid/Liquid	N/A	LA-514-114 Rev. C-1 LA-560-112 Rev. B-1
Bulk Density	Solid	N/A	LO-160-103 Rev. B-0
Sp.G.	Liquid	N/A	LA-510-112 Rev. C-3
CN	Liquid Solid	N/A	LA-695-102 Rev. A-0 LA-695-103 Rev. A-0
IC	Solid Liquid	LA-504-101 Rev. E-0 N/A	LA-533-105 Rev. D-1
ICP	Solid Liquid	LA-505-159 Rev. D-0 LA-549-101 Rev. F-0 LA-504-101 Rev. E-0 N/A	LA-505-151 Rev. D-3 LA-505-161 Rev. B-1
TICTOC	Liquid Solid	N/A	LA-342-100 Rev. D-0
TOC	Liquid	N/A	LA-344-105 Rev. D-1

WHC-SD-WM-DP-191, REV. 1

AT/TB	Solid	LA-549-101 Rev. F-0	LA-508-101 Rev. D-2
GEA	Solid	LA-549-101 Rev. F-0	LA-548-121 Rev. E-0
⁹⁰ Sr	Solid	LA-549-141 Rev. F-0	LA-220-101 Rev. D-1
U	Solid	LA-549-101 Rev. F-0	LA-925-009 Rev. A-1

Abbreviations:

N/A = not applicable (these are direct samples)
 DSC = differential scanning calorimetry
 TGA = thermogravimetric analysis
 Sp.G. = specific gravity
 CN = cyanide
 % Water = percent water by gravimetric analysis
 IC = ion chromatography
 ICP = inductively coupled plasma
 TOC = total organic carbon
 TIC = total inorganic carbon
 AT = total alpha
 TB = total beta
 GEA = gamma energy analysis
¹³⁷Cs = cesium 137
⁹⁰Sr = strontium 90
 U = uranium

WHC-SD-WM-DP-191, REV. 1

References

- Brown, T. M., 1996, *Tank 241-U-106 Push Mode Core Sampling and Analysis Plan*, WHC-SD-WM-TSAP-093, Rev. 0, Westinghouse Hanford Company, Richland, WA 99352.
- Dukelow, G. T., J. W. Hunt, H. Babad, and J. E. Meacham, 1995, *Tank Safety Screening Data Quality Objective*, WHC-SD-WM-SP-004, Rev. 2, Westinghouse Hanford Company, Richland, WA 99352
- Simpson, B. C., and D. J. McCain, 1995, *Historical Model Evaluation Data Requirements*, WHC-SD-WM-DQO-018, Rev. 0, Westinghouse Hanford Company, Richland, WA 99352.
- Turner, D. A., H. Babad, L. L. Buckley, and J. E. Meacham, 1995, *Data Quality Objective to Support Resolution of the Organic Complexant Safety Issue*, WHC-SD-WM-DQO-006, Rev. 2, Westinghouse Hanford Company, Richland, WA 99352.

WHC-SD-WM-DP-191, REV. 1

ATTACHMENT 1

U-106 SAMPLE BREAKDOWN

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

Attachment 1 Page 1 of 12

U-106
Core:147
Seg: 1
S96T002857

U-106
Core:147
Seg: 2
S96T002858

Attachment 1
Page 2 of 12

WHC-SD-WM-DP-191, REV. I

This page cannot be converted.
Please view the native document
for the original page.

U-106

Core:147

Seg: 4

S96T002812

Attachment 1
Page 4 of 12

U-106
Core:147
Seg: 5
S96T002813

Attachment 1
Page 5 of 12

Composited:

Segment Grams:

2	UH	30.0
3	UH	15.0
3	UH	15.0
4	UH	15.0
4	UH	15.0
5	UH	15.0
5	UH	15.0

U-106
Core:147
Composite:
Whole Core

HOMOGENEOUS
COMPOSITE
DENSITY
DENSITY

S96T003875

S96T003876

S96T003877

S96T003878

S96T003888

S96T003879

S96T003880

U-106
Core: 148
Seg: 1
S96T002823

Attachment 1
Page 7 of 12

U-106
Core:148
Seg: 2
S96T002824

Attachment 1
Page 8 of 12

WHC-SD-WM-DP-191, REV. I

U-106
Core:148
Seg: 3
S96T002818

Attachment 1
Page 9 of 12

U-106

Core:148

Seg: 4

S96T002819

Attachment 1

Page 10 of 12

U-106

Core:148

Seg: 5

S96T002820

Attachment 1

Page 11 of 12

WHC-SD-WM-DP-191, REV. /

Composited:

Segment	Grams
2 UH	15.0
2 LH	15.0
3 UH	15.0
3 LH	15.0
4 UH	15.0
4 LH	15.0
5 UH	15.0
5 LH	15.0

U-106
Core:148
Composite:
Whole Core

WHC-SD-WM-DP-191, REV. 1

PROGAGATING REACTIVE SYSTEM SCREENING TOOL

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

**Westinghouse
Hanford Company**

WHC-SD-WM-DP-191, REV. 1

**Internal
Memo**

From: Process Chemistry & Statistics
Phone: 373-2162
Date: September 9, 1996
Subject: RSST ADIABATIC CALORIMETRY OF U-106 SLUDGE SAMPLE

75764-PCS96-091

To:

T. M. Steen

T6-06

cc: T. M. Brown R2-12
J. R. Jewett T6-09
J. E. Meacham S7-14
DBB File/LB T6-09

SUMMARY/CONCLUSIONS

Sample S96T004013 from segment 3 of a U-106 core was dried over low heat to remove 17.4% moisture, then size-reduced for a total of two complete RSST tests. Testing at approx. 7 barg overpressure yielded weak self-heat events, starting at 210°C to 225°C, and ending at a maximum of 400°C, to give a maximum ΔT of 119°C, (ϕ is defined below), a maximum self-heat rate of 42°C/min, and a maximum 1.01×10^{-3} mole/gram of noncondensable gas generation in duplicate testing. The maximum derived estimator of energy yield is given by $158 \times (\text{specific heat capacity}) + 16 \text{ J/g}^{\text{dry}}$.

PERFORMANCE OF WORK

Work was performed according to WHC-SD-WM-TP-104, and calculations (attachments 1 to 3) were made as outlined in WHC-SD-WM-DTR-026. Sample treatment and experimental data were logged in WHC-N-1014-1, pg. 78-85, and separate hardcopies of instrumental data were retained in WHC-N-1376-1 to back up electronic copies.

SAMPLE TREATMENT

There was one sample submitted for RSST analysis from the U-106 tank. Table 1 identifies the tests based on this sample and reports the various states of moisture/volatiles loss it experienced.

F. H. Steen
Page 2
September 9, 1996

75764-PCS96-091

Table 1. Sample Identification and Percent Volatiles From As-Received to Various States

Test ID	Sample	%H ₂ O Lost to Prepared State ^a	%H ₂ O Lost to Dry State ^b	%Total Volatiles Lost to Reacted State ^c
960815	S96T004013 Vial 10696 U-106 S2	17.47	44.57	Canceled heatup -See below
960819	Reheat of above to complete the test	See above	See above	24.73
960826	New aliquot of same	See above	See above	26.31

^a Weight loss from as-received to as-prepared for RSST.

^b Weight loss by 222-S lab reported results for as-delivered to as-dry -- the dry weight basis.

^c Calculated from loss on reaction in RSST and loss on preparation. Usually low due to condensate on sample insulation sheath.

As received, the sample was a wet, sticky material that needed to be dried and size-reduced in order to make it suitable for RSST analysis. This is done for two reasons:

- To be able to get the sample into the RSST sample vessel, and
- To prevent the evolution of large amounts of water, which creates sample voids, tends to push sample out of the sample holder, and compromises the thermal insulation around the holder.

The sample was dried in a beaker sitting on a hot plate at low heat for two days. After having been dried, it was ground up for dispensing into the RSST holder. Loaded samples were run in the RSST under approximately 7 barg nitrogen (assured by first flushing the bomb with nitrogen twice before a final fill). The selected heating rate for all runs was approximately 1°C/min.

During Test 960815, it was noted that the heater circuit had suffered a blown fuse, and so the run was canceled at approximately 212°C before any self-heating was apparent. After repairs, the same sample was rerun through a complete heating program in Test 960819. Another aliquot of prepared sample was run in Test 960826 to provide a duplicate experiment to verify the results obtained in the two previous tests.

F. H. Steen
Page 3
September 9, 1996

75764-PCS96-091

THERMAL RESULTS

Test 960815

Figure 1 (attachment 1) illustrates the thermal response from the abortive test 960815, and these results are summarized in Table 3. During the heatup, the slow heat rate achieved indicated a partial heater failure that was subsequently found to be a blown fuse, so the run was canceled at a temperature of approximately 212°C. No self-heating response was evident before the run was canceled, therefore the sample was viewed as intact and available for a reheat when repairs could be made to the RSST heater circuit. The sample aliquot was left sealed up and undisturbed in the RSST bomb.

Test 960819

The sample aliquot from the previous test was reheated in this run. The results are illustrated in Figures 1 and 2 (attachment 2) and are reported in Table 3. Between approximately 150°C and 225°C, the instrumentally driven heat rate was perturbed and depressed by passage of the sample through an endothermic regime. By 225°C, though, it was clear that the sample had finished traversing this regime and was contributing internally generated heat. The heat rate gyrated somewhat, exciting more heater offset, but finally attained a weak 42 °C/min rate before maximum heater compensating power and apparent reactant exhaustion at 340°C.

The general shape of the temperature rate curve in Figure 2 (attachment 2) is more complex than would be obtained from a simple first order reaction. The hesitation and acceleration occurring at low self-heat rates could possibly be due to the melt of more oxidizer, consequently followed by increased oxidation rates. The sample in test 960819 did not show any indication of propagation.

The initial stages of the complex self-heating event (where changes in reactant stoichiometry are not yet significant) were crudely, collectively fitted by Arrhenius parameters and a fixed value of baseline heating rate. The baseline value of 0.81°C/min was determined by fitting baseline data at temperatures below the endothermic regime. These parameters are listed in Table 3.

The ϕ factor appearing in the tables, and defined by the footnote, removes the effects of instrument heat capacity from the initial stage and final state results. It is by definition always greater than unity, but is likely to be less than 1.09 in value. To estimate its value, one needs to provide an estimate of the average heat capacity that the sample possesses while the exothermic reaction is occurring because, unfortunately, a measured value is not currently available.

The exothermic energy content of the sample could be calculated (attachment 2) from the baseline-corrected temperature change if an estimated average

F. H. Steen
Page 4
September 9, 1996

75764-PCS96-091

reacting heat capacity were available. The formula that would be used would be:

$$\hat{Q}_{dry} = 85.8 (\bar{C}_{ps}^{react}) + 7.45 \frac{J}{g_{dry}} \quad (1)$$

This is provided for the convenience of those willing to venture a heat capacity estimate in order to obtain an estimate of specific energy release.

Test 960826

Figures 1 and 2 (attachment 3) comprise the thermal response results for this test. The sample began to self-heat at 210°C, traversing several weak self-heating regimes before attaining a maximum 14°C/min, then exhausting itself at 400°C. The events observed were in approximate agreement with DSC thermograms taken from wet samples (S96T003071).

The initial self-heating responses were collectively and crudely fitted by Arrhenius parameters reported in Table 3. For this test the value of ϕ is unlikely to have exceeded 1.1.

The energy released from the sample in this test would be estimated by:

$$\hat{Q}_{dry} = 158.2 (\bar{C}_{ps}^{react}) + 16 \frac{J}{g_{dry}} \quad (2)$$

if an average reacting specific heat capacity were available. The average of equations (1) and (2) would be:

$$\text{Mean } \hat{Q}_{dry} = (122.0 \pm 51) (\bar{C}_{ps}^{react}) + (11.7 \pm 6) \frac{J}{g_{dry}} \quad (3)$$

GAS PRODUCTION RESULTS

Test 960815

Pressure evolution data and gas production calculation results appear in Figures 1 through 3 (attachment 1) and Tables 2 and 4 below. (Note that the dry-weight-basis results reported in the table are based on TGA results on original samples from the core segment, not on RSST sample preparation results). Figure 3 (attachment 1) was calculated from the instrumental data as suggested in the footnotes to Table 2 (see WHC-SD-WM-DTR-026). Clearly some noncondensable gas was generated by non-exothermic decomposition during this test. Table 4 compares these calculations with those based on the auxiliary data in Table 2.

F. H. Steen
Page 5
September 9, 1996

75764-PCS96-091

Test 960819

Relevant results appear in Figures 1, 3 and 4 (attachment 2) and Tables 2 and 4 below. It should be pointed out that the calculations which yield Figure 4 (attachment 2) are based on near-steady-state temperature distributions in the RSST bomb, and give erroneous results when temperatures rise or fall rapidly. Nevertheless, Table 4 indicates that more gas was generated in this reheat test.

The total gas generated in the aliquot used in the first two tests is the sum of each individual test. Its value is affected by slow leakage in between tests.

Test 960826

Data for this test are illustrated in Figures 1, 3 and 4 (attachment 3), and results are collected in Tables 2 and 4. This aliquot also generated condensate and noncondensable gas upon heatup. Comparing the sums from the two calculation methods for the first two tests with the corresponding value in test 960826 suggests that the auxiliary data method gives more internally consistent results in this instance.

Table 2. U-106 Auxiliary Test Data.

Test ID	At start of run sample at ambient T			At Peak of Run Sample at T		At end of run sample cooled to ambient T				Comment
	P ₀ (barg)	T ₀ (°C)	w _g prep (g)	max. T (°C) Observed at t (min) from Onset	max. P (barg) Observed at t (min) from Onset	P _f (barg)	T _f (°C)	w _g react (g)	%(AW _g /w _g) _{react} (%)	
960815	6.9843	20.94	10.57	212°C no onset	8.537 barg no onset	7.2167	21.62			Heatup completed next test
960819	7.2167	21.62	10.57	340°C at 64 min	9.88 barg at 101 min from onset	7.6934	25.08	9.64	-8.80	Reheat of above
960826	6.9873	25.52	9.24	400°C at 81.2 min	9.5 barg at 103.5 min from onset	7.3562	22.2	8.25	-10.71	

F. H. Steen
Page 6
September 9, 1996

75764-PCS96-091

Table 3. U-106 Self-Heat Results.

Test ID	T _{onset} (°C)	ΔT _{rise} ^a (°C)	Max. dT/dt (uncorr.) (°C/min), at T (°C)* or t (min) from onset	Initial E _a (KJ/mole)	Initial K (C°/min) at T (°C)	Comments
960815	none	none	none	none	none	Test canceled before self- heat
960819	225	φ x 63.2	φ x 42.1°C/min at 319°C or 54.9 min from onset	146 ± 21	φ x (0.74 ± 0.24) at 250°C	B fixed at 0.81°C/min
960826	210	φ x 119	φ x 14.0°C/min at 373°C or 75.9 min from onset	160 ± 11	φ x (1.39 ± 0.12) at 300°C	B fixed at 0.87°C/min

*φ = 1 + C_{pl}ω_g/avg. C_{ps}^{max}ω_g^{max}, C_{ps} in Joule/g/°C, see attached calculations for each test

Table 4. U-106 Gas Production Results.

Test ID	F ^a	ΔN/ω _g ^{exp} by calc. ^b (mol/g)	ΔN/ω _g ^{exp} by calc. ^b (mol/g)	Max. (dP/dt)/ω _g ^{exp} (uncorr.) (bar/min/g) at T°C or t minutes from onset	Max. (dN/dt)/ω _g ^{exp} (uncorr.) (bar/min/g) at t minutes from onset	ΔN/ω _g ^{exp} by auxiliary data ^b (mol/g)	ΔN/ω _g ^{exp} by auxiliary data ^b (mol/g)
960815	0.2352	3.8x10 ⁻⁴	5.7x10 ⁻⁴	5.3x10 ⁻⁴ bar/min/g at 190 to 212°C or 300 to 350 min from start - no onset	4.2x10 ⁻⁶ no onset	2.7x10 ⁻⁴	4.0x10 ⁻⁴
960819	0.2297	4.6x10 ⁻⁴	6.8x10 ⁻⁴	0.0024 bar/min/g at 312°C or 41.9 min from onset	5.7x10 ⁻⁶ at -7.0 to +74 min from onset	4.86x10 ⁻⁴	7.24x10 ⁻⁴
960826	0.2177	4.3x10 ⁻⁴	6.4x10 ⁻⁴	0.0034 bar/min/g at 337 to 396°C or 72.5 to 80.5 min from onset	7.4x10 ⁻⁶ at 171 to 222°C or -48.5 to +13.5 min from onset	6.76x10 ⁻⁴	1.01x10 ⁻³

^a PV = NRT_{effective}, T_{effective} = F x T_{sample} + (1 - F) x T_{ambient}, F = (dP/dt)₀ x T₀/P₀ in absolute units.

^bNoncondensable gases only

F. H. Steen
Page 7
September 9, 1996

75764-PCS96-091

Feel free to call if you have any further questions on this matter.

D. B. Bechtold, Principal Scientist
Process Chemistry & Statistics

dls

Attachments (3)

75764-PCS96-091

Attachment 1

Figures and Calculations for RSST Results of Test 960815;
Sample U-106, S96T004013

Consisting of 7 Pages including this cover page

Test 960815; Sample U-106, S96T004013

Figure 1

Test 960815; Sample U-106, S96T004013

Figure 2

Test 960815; Sample U-106, S96T004013

Figure 3

Test 960815; Sample U-106, S96T004013

WEIGHT LOSSES

$$\%H_2O^{prep} = 100 \frac{\text{gross}_{wet} - \text{gross}_{prep}}{\text{gross}_{wet} - \text{tare}_{prep}}$$

$$= 100 \frac{214.4 - 209.7}{214.4 - 187.5} = 17.47\%$$

$$\%H_2O^{dry} = 44.57\% \text{ (determined by separate analyses)}$$

$$\% \left(\frac{\Delta w_s}{w_s} \right)^{react} = 100 \frac{\text{gross}_{react} - \text{gross}_s}{\text{gross}_s - \text{tare}_s}$$

$$= \text{(See Calculations Test 960819)}$$

$$\% \text{ (total volatiles)}^{react} = 100 - \% \text{ solids}^{react}$$

$$= 100 - \frac{1}{100} [100 - \%H_2O^{prep}] \left[100 + \% \left(\frac{\Delta w_s}{w_s} \right)^{react} \right]$$

$$= \text{(See Calculations Test 960819)}$$

(4)

Test 960815; Sample U-106, S96T004013

TOTAL SPECIFIC NONCONDENSIBLE GAS PRODUCTION:

$$\frac{\left(\frac{dP}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{prep}}} = \frac{0.0056}{10.57} = 5.3 \times 10^{-4} \frac{\text{bar}}{\text{min g}^{\text{prep}}} \quad (5)$$

at 300 to 350°C

By Calculated Graph:

$N_i = 0.1096$ mole, $N_e = 0.1136$ mole, $w_s^{\text{prep}} = 10.57$ grams

$$\frac{\Delta N}{w_s^{\text{prep}}} = \frac{0.1136 - 0.1096}{10.57} = 3.8 \times 10^{-4} \frac{\text{mole}}{\text{gram prep}}$$

$$\frac{\Delta N}{w_s^{\text{dry}}} = \frac{\Delta N}{w_s^{\text{prep}}} \frac{100 - \%H_2O^{\text{prep}}}{100 - \%H_2O^{\text{dry}}} = 3.8 \times 10^{-4} \frac{100 - 17.47}{100 - 44.57}$$

$$= 5.7 \times 10^{-4} \frac{\text{mole}}{\text{gram dry}}$$

(6)

$$\frac{\left(\frac{dN}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{prep}}} = \frac{3.0 \times 10^{-5}}{10} \cdot 57 = 2.8 \times 10^{-6} \frac{\text{mole}}{\text{gram prep}}$$

$$\frac{\left(\frac{dN}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{dry}}} = 2.8 \times 10^{-6} \frac{100 - 17.47}{100 - 44.57} = 4.2 \times 10^{-6} \frac{\text{mole}}{\text{gram dry}}$$

at 300 to 360°C

Test 960815; Sample U-106, S96T004013

By Auxiliary Data:

$$P_0 = 6.9843 \text{ barg}, T_0 = 20.84 \text{ }^\circ\text{C}, P_f = 7.2167 \text{ barg}, T_f = 21.62 \text{ }^\circ\text{C}$$

$$V = 335 \text{ cm}^3, R = 83.14 \frac{\text{bars cm}^3}{\text{mole } ^\circ\text{K}}$$

$$\begin{aligned} \frac{\Delta N}{w_s^{\text{prep}}} &= \frac{1}{w_s^{\text{prep}}} \frac{V}{R} \left[\frac{P_f + 1.01325}{T_f + 273.15} - \frac{P_0 + 1.01325}{T_0 + 273.15} \right] \\ &= \frac{1}{10.57} \frac{335}{83.14} \left[\frac{7.2167 + 1.01325}{21.62 + 273.15} - \frac{6.9843 + 1.01325}{20.84 + 273.15} \right] \end{aligned}$$

$$= 2.7 \times 10^{-4} \frac{\text{mole}}{\text{gram prep}}$$

$$\frac{\Delta N}{w_s^{\text{dry}}} = 2.7 \times 10^{-4} \frac{100 - 17.47}{100 - 44.57} = 4.0 \times 10^{-4} \frac{\text{mole}}{\text{gram dry}}$$

(7)

75764-PCS96-091

Attachment 2

Figures and Calculations for RSST Results of Test 960819;
Sample U-106, S96T004013

Consisting of 11 Pages including this cover page

Test 960819; Sample U-106, S96T004013

Figure 1

Test 960819; Sample U-106, S96T004013

Figure 2

Test 960819; Sample U-106, S96T004013

Figure 3

Test 960819; Sample U-106, S96T004013

Figure 4

Test 960819; Sample U-106, S96T004013

WEIGHT LOSSES

$$\%H_2O^{prep} = 100 \frac{gross^{wet} - gross^{prep}}{gross^{wet} - tare^{prep}}$$

= See Calculations Test 960815

 $\%H_2O^{dry}$ = See Calculations Test 960815

$$\begin{aligned} \% \left(\frac{\Delta w_s}{w_s} \right)^{react} &= 100 \frac{gross_{react} - gross_s}{gross_s - tare_s} \\ &= 100 \frac{59.84 - 60.77}{60.77 - 50.20} = -8.80\% \end{aligned}$$

 $\% \text{ (total volatiles)}^{react} = 100 - \% \text{ solids}^{react}$

$$\begin{aligned} &= 100 - \frac{1}{100} [100 - \%H_2O^{prep}] \left[100 + \% \left(\frac{\Delta w_s}{w_s} \right)^{react} \right] \\ &= 100 - \frac{1}{100} [100 - 17.47] [100 - 8.80] \\ &= 24.73\% \end{aligned}$$

(1)

Test 960819; Sample U-106, S96T004013

TOTAL SPECIFIC NONCONDENSIBLE GAS PRODUCTION:

$$\frac{\left(\frac{dP}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{prep}}} = \frac{0.025}{10.57} = 0.0024 \frac{\text{bar}}{\text{min g}^{\text{prep}}} \text{ at } 312^\circ\text{C}, \quad (2)$$

or $325.0 - 276.0 = 49.0$ min. from onset

By Calculated Graph:

$N_i = 0.1129$ mole, $N_o = 0.1178$ mole, $w_s^{\text{prep}} = 10.57$ grams

$$\frac{\Delta N}{w_s^{\text{prep}}} = \frac{0.1178 - 0.1129}{10.57} = 4.6 \times 10^{-4} \frac{\text{mole}}{\text{gram prep}}$$

$$\frac{\Delta N}{w_s^{\text{dry}}} = \frac{\Delta N}{w_s^{\text{prep}}} \frac{100 - \%H_2O^{\text{prep}}}{100 - \%H_2O^{\text{dry}}} = 4.6 \times 10^{-4} \frac{100 - 17.47}{100 - 44.57}$$

$$= 6.8 \times 10^{-4} \frac{\text{mole}}{\text{gram dry}}$$

(3)

$$\frac{\left(\frac{dN}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{prep}}} = \frac{4.0 \times 10^{-5}}{10} \cdot 57 = 3.8 \times 10^{-6} \frac{\text{mole}}{\text{gram prep}}$$

$$\frac{\left(\frac{dN}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{dry}}} = 3.8 \times 10^{-6} \frac{100 - 17.47}{100 - 44.57} = 5.7 \times 10^{-6} \frac{\text{mole}}{\text{gram dry}}$$

at 218 to 344°C or -7.0 to $+74$ min from onset

WHC-SD-WM-DP-191, REV. I

Test 960819; Sample U-106, S96T004013

By Auxiliary Data:

$$P_0 = 7.2167 \text{ barg}, T_0 = 21.62 \text{ }^\circ\text{C}, P_f = 7.6934 \text{ barg}, T_f = 25.08 \text{ }^\circ\text{C}$$

$$V = 335 \text{ cm}^3, R = 83.14 \frac{\text{bara cm}^3}{\text{mole } ^\circ\text{K}}$$

$$\frac{\Delta N}{w_s^{\text{prep}}} = \frac{1}{w_s^{\text{prep}}} \frac{V}{R} \left[\frac{P_f + 1.01325}{T_f + 273.15} - \frac{P_0 + 1.01325}{T_0 + 273.15} \right]$$

$$= \frac{1}{10.57} \frac{335}{83.14} \left[\frac{7.6934 + 1.01325}{25.08 + 273.15} - \frac{7.2167 + 1.01325}{21.62 + 273.15} \right]$$

$$= 4.86 \times 10^{-4} \frac{\text{mole}}{\text{gram prep}}$$

$$\frac{\Delta N}{w_s^{\text{dry}}} = 4.86 \times 10^{-4} \frac{100 - 17.47}{100 - 44.57} = 7.24 \times 10^{-4} \frac{\text{mole}}{\text{gram dry}}$$

(4)

Test 960819; Sample U-106, S96T004013

SELF-HEAT PARAMETERS

ΔT_{true} :

$$T_i \approx 225^\circ\text{C}, t_i \approx 276.0 \text{ min}, T_o \approx 340^\circ\text{C}, t_o \approx 340.0 \text{ min}$$

$$B \approx 0.81^\circ\text{C/min},$$

$$\begin{aligned}\Delta T_{\text{true}} &= \phi \Delta T_{\text{corr}} = \phi([T_o - T_i] - B[t_o - t_i]) \\ &= \phi([340 - 225] - 0.81[340.0 - 276.0]) \\ &= \phi 63.2^\circ\text{C}\end{aligned}$$

$$\begin{aligned}\phi &= \frac{(\bar{C}_{\text{ps}}^{\text{react}})(w_s^{\text{react}}) + C_{\text{ph}}w_h}{(\bar{C}_{\text{ps}}^{\text{react}})(w_s^{\text{react}})} = \left(1 + \frac{C_{\text{ph}}w_h}{(\bar{C}_{\text{ps}}^{\text{react}})\frac{w_s^{\text{react}}}{w_s^{\text{prep}}w_s^{\text{prep}}}}\right) \\ &= 1 + \left(\frac{C_{\text{ph}}w_h}{(\bar{C}_{\text{ps}}^{\text{react}})\frac{100 + \left(\frac{8}{100}\right)\frac{w_s^{\text{react}}}{w_s^{\text{prep}}}}{100}}\right) \quad (5) \\ &= 1 + \left(\frac{0.8368}{(\bar{C}_{\text{ps}}^{\text{react}})\frac{100 + (-8.80)}{100}10.57}\right) \\ &= 1 + \frac{0.087}{(\bar{C}_{\text{ps}}^{\text{react}})} \quad \left((\bar{C}_{\text{ps}}^{\text{react}}) \text{ units } \frac{\text{J}}{\text{g}^\circ\text{K}}\right)\end{aligned}$$

$$\left(\frac{dT}{dt}\right)_{\text{uncorr}}^{\text{max}} = 42.1 \frac{^\circ\text{C}}{\text{min}} \text{ at } 319^\circ\text{C}$$

$$\text{or } 330.9 - 276.0 = 54.9 \text{ min from onset}$$

Test 960819; Sample U-106, S96T004013

THERMAL KINETIC PARAMETERS:

For the initial stage of the runaway, dT/dt vs $Z \approx -1000/(T+273.15)$ data for temperatures between 225°C and 295°C and for dT/dt values greater than 0.1 °C/min are least-squares fit by the function

$$\frac{dT}{dt} = B + K_{250} e^{\frac{E_a}{R}(Z - Z_{250})}, \quad (6)$$

$$\text{where } Z = -\frac{1000}{T + 273.15}, \quad Z_{250} = -\frac{1000}{250 + 273.15}$$

with parameters $E_a = 146 \pm 21$ KJ/mole, $K_{250} = 0.74 \pm 0.23$ °C/min; and constants $B = 0.81$ °C/min and $R = 8.3144$ J/mole/°K.

Test 960819; Sample U-106, S96T004013

SPECIFIC EXOTHERMIC ENERGY RELEASE:

Neglecting PV work,

$$\begin{aligned}
 Q &= \Delta T_{\text{true}} (w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) = \Delta T_{\text{corr}} \Phi (w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) \\
 &= \Delta T_{\text{corr}} \frac{[(w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) + w_h C_{ph}]}{(w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}})} (w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) \\
 &= \Delta T_{\text{corr}} [(w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) + w_h C_{ph}] \\
 \hat{Q}_{\text{dry}} &\approx \Delta T_{\text{corr}} \left[\frac{w_s^{\text{react}}}{w_s^{\text{dry}}} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{w_s^{\text{dry}}} \right] \\
 &= \Delta T_{\text{corr}} \left[\frac{\frac{w_s^{\text{react}}}{w_s^{\text{prep}}}}{\frac{w_s^{\text{dry}} w_s^{\text{wet}}}{w_s^{\text{wet}} w_s^{\text{prep}}}} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{\frac{w_s^{\text{dry}} w_s^{\text{wet}}}{w_s^{\text{wet}} w_s^{\text{prep}} w_s^{\text{prep}}}} \right] \quad (7) \\
 &= \Delta T_{\text{corr}} \frac{w_s^{\text{prep}}}{w_s^{\text{wet}} w_s^{\text{dry}}} \left[\frac{w_s^{\text{react}}}{w_s^{\text{prep}}} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{w_s^{\text{prep}}} \right] \\
 \hat{Q}_{\text{dry}} &\approx \Delta T_{\text{corr}} \frac{(100 - \%H_2O^{\text{prep}})}{(100 - \%H_2O^{\text{dry}})} \left[\frac{100 + (\% \frac{\Delta w_s}{w_s})^{\text{react}}}{100} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{w_s^{\text{prep}}} \right] \\
 &= 63.2 \frac{(100 - 17.47)}{(100 - 44.67)} \left[\frac{100 + (-8.80)}{100} (\bar{C}_{ps}^{\text{react}}) + \frac{0.8368}{10.57} \right] \\
 &= 85.8 (\bar{C}_{ps}^{\text{react}}) + 7.45 \frac{J}{g^{\text{dry}}}
 \end{aligned}$$

75764-PCS96-091

Attachment 3

Figures and Calculations for RSST Results of Test 960826;
Sample U-106, S96T004013

Consisting of 11 Pages including this cover page

Test 960826; Sample U-106, S96T004013

Figure 1

Test 960826; Sample U-106, S96T004013

Figure 2

Test 960826; Sample U-106, S96T004013

Figure 3

Test 960826; Sample U-106, S96T004013

Figure 4

Test 960826; Sample U-106, S96T004013

WEIGHT LOSSES

$$\%H_2O^{prep} = 100 \frac{\text{gross}^{wet} - \text{gross}^{prep}}{\text{gross}^{wet} - \text{tare}^{prep}}$$

= See Calculations Test 960815

$\%H_2O^{dry}$ = See Calculations Test 960815

$$\% \left(\frac{\Delta w_s}{w_s} \right)^{react} = 100 \frac{\text{gross}^{react} - \text{gross}_s}{\text{gross}_s - \text{tare}_s}$$

$$= 100 \frac{56.69 - 57.68}{57.68 - 48.44} = -10.71\%$$

$$\% (\text{total volatiles})^{react} = 100 - \% \text{ solids}^{react}$$

$$= 100 - \frac{1}{100} [100 - \%H_2O^{prep}] \left[100 + \% \left(\frac{\Delta w_s}{w_s} \right)^{react} \right]$$

$$= 100 - \frac{1}{100} [100 - 17.47] [100 - 10.71]$$

$$= 26.31\%$$

(1)

Test 960826; Sample U-106, S96T004013

TOTAL SPECIFIC NONCONDENSIBLE GAS PRODUCTION:

$$\begin{aligned} \frac{\left(\frac{dp}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{prep}}} &= \frac{0.031}{9.24} = 0.0034 \frac{\text{bar}}{\text{min g}^{\text{prep}}} \text{ at } 337 \text{ to } 396^\circ\text{C}, \\ \text{or } 289 - 216.5 &= 72.5 \text{ min. to} \\ 297 - 216.5 &= 80.5 \text{ min from onset} \end{aligned} \quad (2)$$

By Calculated Graph:

$N_i = 0.1082 \text{ mole}$, $N_e = 0.1122 \text{ mole}$, $w_s^{\text{prep}} = 9.24 \text{ grams}$

$$\begin{aligned} \frac{\Delta N}{w_s^{\text{prep}}} &= \frac{0.1122 - 0.1082}{9.24} = 4.3 \times 10^{-4} \frac{\text{mole}}{\text{gram prep}} \\ \frac{\Delta N}{w_s^{\text{dry}}} &= \frac{\Delta N}{w_s^{\text{prep}}} \frac{100 - \%H_2O^{\text{prep}}}{100 - \%H_2O^{\text{dry}}} = 4.3 \times 10^{-4} \frac{100 - 17.47}{100 - 44.57} \\ &= 6.4 \times 10^{-4} \frac{\text{mole}}{\text{gram dry}} \end{aligned}$$

$$\frac{\left(\frac{dN}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{prep}}} = \frac{4.6 \times 10^{-5}}{9} .24 = 5.0 \times 10^{-6} \frac{\text{mole}}{\text{gram prep}} \quad (3)$$

$$\frac{\left(\frac{dN}{dt}\right)_{\text{uncorr}}^{\text{max}}}{w_s^{\text{dry}}} = 5.0 \times 10^{-6} \frac{100 - 17.47}{100 - 44.57} = 7.4 \times 10^{-6} \frac{\text{mole}}{\text{gram dry}}$$

at 171°C to 222°C or

$170 - 216.5 = -46.5 \text{ min to}$

$230 - 216.5 = 13.5 \text{ min from onset}$

Test 960826; Sample U-106, S96T004013

By Auxiliary Data:

$$P_o = 6.9873 \text{ barg}, T_o = 25.62 \text{ }^{\circ}\text{C}, P_f = 7.3562 \text{ barg}, T_f = 22.2 \text{ }^{\circ}\text{C}$$

$$V = 335 \text{ cm}^3, R = 83.14 \frac{\text{bars cm}^3}{\text{mole } ^{\circ}\text{K}}$$

$$\begin{aligned} \frac{\Delta N}{w_s^{\text{prep}}} &= \frac{1}{w_s^{\text{prep}}} \frac{V}{R} \left[\frac{P_f + 1.01325}{T_f + 273.15} - \frac{P_o + 1.01325}{T_o + 273.15} \right] \\ &= \frac{1}{9.24} \frac{335}{83.14} \left[\frac{7.3562 + 1.01325}{22.2 + 273.15} - \frac{6.9873 + 1.01325}{25.52 + 273.15} \right] \\ &= 6.76 \times 10^{-4} \frac{\text{mole}}{\text{gram prep}} \end{aligned}$$

$$\frac{\Delta N}{w_s^{\text{dry}}} = 6.76 \times 10^{-4} \frac{100 - 17.47}{100 - 44.57} = 1.01 \times 10^{-3} \frac{\text{mole}}{\text{gram dry}}$$

(4)

Test 960826; Sample U-106, S96T004013

SELF-HEAT PARAMETERS

ΔT_{true} :

$$T_i \approx 210^\circ\text{C}, t_i \approx 216.5 \text{ min}, T_o \approx 400^\circ\text{C}, t_o \approx 297.7 \text{ min}$$

$$B \approx 0.87^\circ\text{C/min},$$

$$\begin{aligned}\Delta T_{\text{true}} &= \phi \Delta T_{\text{corr}} = \phi (T_o - T_i) - B[t_o - t_i] \\ &= \phi (400 - 210) - 0.87 [297.7 - 216.5] \\ &= \phi 119^\circ\text{C}\end{aligned}$$

$$\begin{aligned}\phi &= \frac{(\bar{C}_{\text{ps}}^{\text{react}}) (w_s^{\text{react}}) + C_{\text{ph}} w_h}{(\bar{C}_{\text{ps}}^{\text{react}}) (w_s^{\text{react}})} = \left(1 + \frac{C_{\text{ph}} w_h}{(\bar{C}_{\text{ps}}^{\text{react}}) \frac{w_s^{\text{react}}}{w_s^{\text{prep}} w_s^{\text{prep}}} } \right) \\ &= 1 + \left(\frac{C_{\text{ph}} w_h}{(\bar{C}_{\text{ps}}^{\text{react}}) \frac{100 + \left(\frac{w_s}{w_s} \right)^{\text{react}}}{100} w_s^{\text{prep}}} \right) \quad (5) \\ &= 1 + \left(\frac{0.8368}{(\bar{C}_{\text{ps}}^{\text{react}}) \frac{100 + (-10.71)}{100} 9.24} \right) \\ &= 1 + \frac{0.101}{(\bar{C}_{\text{ps}}^{\text{react}})} \quad ((\bar{C}_{\text{ps}}^{\text{react}}) \text{ units } \frac{\text{J}}{\text{g}^\circ\text{K}})\end{aligned}$$

$$\left(\frac{dT}{dt} \right)_{\text{uncorr}}^{\text{max}} = 14.0 \frac{^\circ\text{C}}{\text{min}} \text{ at } 373^\circ\text{C}$$

$$\text{or } 292.4 - 216.5 = 75.9 \text{ min from onset}$$

Test 960826; Sample U-106, S96T004013

THERMAL KINETIC PARAMETERS:

For the initial stage of the runaway, dT/dt vs $Z = -1000/(T+273.15)$ data for temperatures between 210°C and 330°C are least-squares fit by the function

$$\frac{dT}{dt} = B + K_{300} e^{\frac{E_a}{R}(Z - Z_{300})}, \quad (6)$$

$$\text{where } Z = -\frac{1000}{T + 273.15}, \quad Z_{300} = -\frac{1000}{300 + 273.15}$$

with parameters $E_a = 160 \pm 11$ KJ/mole, $K_{300} = 1.39 \pm 0.12$ °C/min; and constants $B = 0.87$ °C/min and $R = 8.3144$ J/mole/°K.

Test 960826; Sample U-106, S96T004013

SPECIFIC EXOTHERMIC ENERGY RELEASE:

Neglecting PV work,

$$\begin{aligned}
 Q &\approx \Delta T_{\text{true}} (w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) = \Delta T_{\text{corr}} \Phi (w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) \\
 &= \Delta T_{\text{corr}} \left[\frac{(w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) + w_h C_{ph}}{(w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}})} (w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) \right] \\
 &= \Delta T_{\text{corr}} [(w_s^{\text{react}}) (\bar{C}_{ps}^{\text{react}}) + w_h C_{ph}] \\
 \hat{Q}_{\text{dry}} &\approx \Delta T_{\text{corr}} \left[\frac{w_s^{\text{react}}}{w_s^{\text{dry}}} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{w_s^{\text{dry}}} \right] \\
 &= \Delta T_{\text{corr}} \left[\frac{\frac{w_s^{\text{react}}}{w_s^{\text{prep}}} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{\frac{w_s^{\text{dry}} w_s^{\text{wet}}}{w_s^{\text{wet}} w_s^{\text{prep}}} w_s^{\text{prep}}}}{\frac{w_s^{\text{dry}} w_s^{\text{wet}}}{w_s^{\text{wet}} w_s^{\text{prep}}}} \right] \quad (7) \\
 &= \Delta T_{\text{corr}} \frac{\frac{w_s^{\text{prep}}}{w_s^{\text{wet}}}}{\frac{w_s^{\text{dry}}}{w_s^{\text{wet}}}} \left[\frac{w_s^{\text{react}}}{w_s^{\text{prep}}} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{w_s^{\text{prep}}} \right] \\
 \hat{Q}_{\text{dry}} &\approx \Delta T_{\text{corr}} \frac{(100 - \%H_2O^{\text{prep}})}{(100 - \%H_2O^{\text{dry}})} \left[\frac{100 + \left(\frac{\Delta w_s}{w_s} \right)^{\text{react}}}{100} (\bar{C}_{ps}^{\text{react}}) + \frac{w_h C_{ph}}{w_s^{\text{prep}}} \right] \\
 &= 119 \frac{(100 - 17.47)}{(100 - 44.57)} \left[\frac{100 + (-10.71)}{100} (\bar{C}_{ps}^{\text{react}}) + \frac{0.8368}{9.24} \right] \\
 &= 158.2 (\bar{C}_{ps}^{\text{react}}) + 16.0 \frac{J}{g^{\text{dry}}}
 \end{aligned}$$

WHC-SD-WM-DP-191, REV. 1

SAMPLE DATA SUMMARY

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

Table 1. Data Summary Table
U-106 (P)

CORE NUMBER: 147
SEGMENT #: 1

SEGMENT PORTION: Drainable Liquid

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD, %	Spk Rec	Det Limit	Count Err%
5945100363		DSC Exotherm using Mettler	Joules/g	107.9	N/A	4.85e+02	485.8	485.5	0.23	N/A	N/A	N/A
5945100363		DSC Exotherm Dry	Joules/g Dry	N/A	N/A	9.25e+02	967.3	966.5	0.22	N/A	N/A	N/A
5945100363		Specific Gravity	Sp.G.	96.45	N/A	1.325	1.320	1.324	0.22	N/A	1.00e-03	N/A
5945100363		% Water by TGA using Mettler	wt%	99.85	N/A	4.69e-04	49.48	49.73	0.20	N/A	N/A	N/A
5945100363		Total Organic Carbon by Coul.	wt%	101.7	6.00e-01	4.84e+04	4.73e+04	4.78e+04	0.20	86.20	4.05e-03	N/A
5945100363		TIC by Acid/Coulometry	wt%	98.84	3.900	3.36e+03	9.49e+03	9.45e+03	1.38	97.30	5.00e-03	N/A
5945100363		TOC by Persulfate/Coulometry	wt%	90.33	3.300	3.50e+04	3.47e+04	3.48e+04	0.86	89.70	4.00e-03	N/A
5945100363		Aluminum-CP-Acid Dil.	wt%	96.40	< 1.00e-02	< 10.00	< 1.00e+01	1.14e+04	N/A	52.50	40.00	N/A
5945100363		Aluminum-CP-Acid Dil.	wt%	98.80	< 1.00e-02	1.07e+04	< 1.00e+02	< 1.00e+02	11.5	52.50	40.00	N/A
5945100363		Arsenic-CP-Acid Dil.	wt%	100.8	< 1.00e-01	< 1.00e+02	< 1.00e+02	< 1.00e+02	N/A	105.0	10.00	N/A
5945100363		Boron-CP-Acid Dil.	wt%	101.8	< 5.00e-02	< 50.10	< 52.10	N/A	N/A	105.0	20.00	N/A
5945100363		Beryllium-CP-Acid Dil.	wt%	100.4	< 5.00e-02	< 50.10	< 51.00	N/A	N/A	105.0	20.00	N/A
5945100363		Bismuth-CP-Acid Dil.	wt%	102.8	< 5.00e-02	< 5.000	< 0.060	N/A	N/A	105.0	5.00e-03	N/A
5945100363		Calcium-CP-Acid Dil.	wt%	100.0	< 1.00e-01	< 1.00e+02	< 1.00e+02	383.0	8.72	97.30	10.00	N/A
5945100363		Cadmium-CP-Acid Dil.	wt%	98.80	< 5.00e-03	82.40	93.00	87.80	11.6	97.20	5.00e-03	N/A
5945100363		Cerium-CP-Acid Dil.	wt%	101.4	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	N/A	105.0	10.00	N/A
5945100363		Cobalt-CP-Acid Dil.	wt%	99.40	< 2.00e-02	< 20.00	< 2.00e+01	N/A	N/A	105.0	20.00	N/A
5945100363		Chromium-CP-Acid Dil.	wt%	98.80	< 1.00e-02	3.81e+02	420.0	400.5	9.72	95.80	10.00	N/A
5945100363		Copper-CP-Acid Dil.	wt%	101.8	< 1.00e-02	28.30	30.70	29.50	8.14	105.0	10.00	N/A
5945100363		Iron-CP-Acid Dil.	wt%	100.4	< 5.00e-02	< 50.10	< 51.00	N/A	N/A	105.0	10.00	N/A
5945100363		Potassium-CP-Acid Dil.	wt%	95.80	< 5.00e-01	1.77e+03	1.98e+03	1.88e+03	11.2	82.00	50.00	N/A
5945100363		Lanthanum-CP-Acid Dil.	wt%	101.0	< 5.00e-02	< 50.10	< 51.00	N/A	N/A	104.0	10.00	N/A
5945100363		Lithium-CP-Acid Dil.	wt%	103.2	< 1.00e-02	< 10.00	< 1.00e+01	N/A	N/A	105.0	10.00	N/A
5945100363		Magnesium-CP-Acid Dil.	wt%	94.20	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	N/A	93.40	10.00	N/A
5945100363		Manganese-CP-Acid Dil.	wt%	98.60	< 1.00e-02	13.90	17.00	15.45	20.1	100.0	10.00	N/A
5945100363		Molybdenum-CP-Acid Dil.	wt%	98.40	< 5.00e-02	57.00	63.90	60.45	11.4	98.70	50.10	N/A
5945100363		Sodium-CP-Acid Dil.	wt%	101.0	< 1.00e-01	1.97e+05	2.20e+05	2.08e+05	11.0	-1.42e+03	100.0	N/A
5945100363		Neodymium-CP-Acid Dil.	wt%	106.2	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	N/A	116.0	100.0	N/A
5945100363		Nickel-CP-Acid Dil.	wt%	98.80	< 2.00e-02	4.76e+02	532.0	504.0	11.9	97.30	20.00	N/A
5945100363		Phosphorus-CP-Acid Dil.	wt%	96.00	< 2.00e-01	1.16e+03	1.32e+03	1.24e+03	12.9	87.60	200.0	N/A
5945100363		Lead-CP-Acid Dil.	wt%	100.4	< 1.00e-01	1.85e+02	187.0	186.0	1.08	97.60	100.0	N/A
5945100363		Sulfur-CP-Acid Dil.	wt%	96.80	< 1.00e-01	2.59e+03	2.90e+03	2.74e+03	11.3	79.70	100.0	N/A
5945100363		Antimony-CP-Acid Dil.	wt%	93.20	< 1.00e-02	< 60.10	< 61.00	N/A	N/A	95.80	60.10	N/A
5945100363		Selenium-CP-Acid Dil.	wt%	101.8	< 1.00e-01	1.40e+02	< 1.00e+02	N/A	N/A	105.0	100.0	N/A
5945100363		Silicon-CP-Acid Dil.	wt%	97.00	< 1.00e-01	< 50.10	< 51.00	N/A	N/A	105.0	100.0	N/A
5945100363		Strontium-CP-Acid Dil.	wt%	101.6	< 1.00e-02	< 10.00	< 1.00e+01	N/A	N/A	103.0	10.00	N/A
5945100363		Tantalum-CP-Acid Dil.	wt%	97.40	< 1.00e-02	< 10.00	< 1.00e+01	N/A	N/A	98.40	10.00	N/A
5945100363		Titanium-CP-Acid Dil.	wt%	97.60	< 2.00e-01	< 2.00e+02	< 2.00e+02	N/A	N/A	98.70	200.0	N/A
5945100363		Thallium-CP-Acid Dil.	wt%	94.30	< 5.00e-01	< 5.00e+02	< 5.00e+02	N/A	N/A	97.50	50.10	N/A
5945100363		Uranium-CP-Acid Dil.	wt%	98.80	< 5.00e-02	< 50.10	< 51.00	N/A	N/A	99.30	50.10	N/A
5945100363		Vanadium-CP-Acid Dil.	wt%	98.60	< 1.00e-02	15.30	17.60	16.45	14.0	99.30	10.00	N/A
5945100363		Zinc-CP-Acid Dil.	wt%	98.60	< 1.00e-02	15.30	17.60	16.45	14.0	99.30	10.00	N/A

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	% Spk Rec %	Det Limit	Count Err%
S921003063	D	Zincium-CP-Acid Dil.	ug/ml	98.20	<1.00e-02	< 10.00	<1.00e1	n/a	n/a	100.0	10.00	n/a
S921003063		Fluoride-IC-Dioxex 4000/4500	ug/ml	107.6	<1.30e-02	< 66.96	<6.70e1	n/a	n/a	103.9	66.96	n/a
S921003063		Chloride-IC-Dioxex 4000/4500	ug/ml	104.6	<1.70e-02	4.94e+03	5.05e+03	5.00e+03	2.20	112.3	87.57	n/a
S921003063		Nitrate-IC - Dioxex 4000/4500	ug/ml	98.32	<1.07e-01	8.91e+04	8.98e+04	8.95e+04	0.78	116.2	551.2	n/a
S921003063		Amide by Ion Chromatograph	ug/ml	99.32	<1.26e-01	1.50e+03	1.50e+03	1.50e+03	0.00	106.6	449.0	n/a
S921003063		Nitrate by IC-Dioxex 4000/4500	ug/ml	101.5	<1.40e-01	2.33e+05	2.35e+05	2.34e+05	0.85	102.9	721.1	n/a
S921003063		Phosphate-IC-Dioxex 4000/4500	ug/ml	102.2	<1.19e-01	2.98e+03	2.92e+03	2.95e+03	2.03	106.6	412.5	n/a
S921003063		Sulfate by IC-Dioxex 4000/4500	ug/ml	102.7	<1.34e-01	6.80e+03	6.76e+03	6.78e+03	0.59	105.6	706.0	n/a
S921003063		Oralate by IC-Dioxex 4000/4500	ug/ml	105.1	<1.05e-01	5.41e+02	5.47e+02	5.44e+02	n/a	107.5	540.9	n/a
S921003063		Alpha in Liquid Samples	ug/ml	96.09	<4.16e-02	3.46e-01	3.71e-01	3.58e-01	6.97	87.47	1.03e-01	3.24e+01

Table 1. Data Summary Table

CORE NUMBER: 147
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S961003065		Cyanide	96.33	<1.10e-02	29.20	27.30	28.25	6.73	95.80	1.790		N/A
S961003065		Cyanide Water Distillation	104.0	N/A	4.01e+02	383.5	392.4	4.50	N/A			N/A
S961003065		BSC Exotherm using Mettler	104.0	N/A	6.89e+02	658.3	675.5	4.50	N/A			N/A
S961003065		% Water by TGA using Mettler	99.86	N/A	40.85	42.63	41.74	4.26	N/A			N/A
S961003065		TIC by Acid/Coulometry	99.86	N/A	1.13e+04	1.16e+04	1.14e+04	1.51	N/A			N/A
S961003065		TOC by Persulfate/Coulometry	92.67	10.50	2.63e+02	2.67e+02	2.65e+02	1.51	N/A			N/A
S961003079		F Silver - ICP-Fusion	99.90	<1.00e-02	<2.01e+02	<2.03e+02	8.22e+03	107	105.0	1.00e+03		N/A
S961003079		F Aluminum - ICP-Fusion	99.40	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	105.0	2.01e+03		N/A
S961003079		F Arsenic - ICP-Fusion	103.4	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	105.0	1.00e+03		N/A
S961003079		F Boron - ICP-Fusion	100.4	<5.00e-02	<1.00e+03	<1.02e+03	N/A	N/A	98.70	1.00e+03		N/A
S961003079		F Barium - ICP-Fusion	98.40	<5.00e-02	<1.00e+03	<1.02e+03	N/A	N/A	98.70	1.00e+03		N/A
S961003079		F Beryllium - ICP-Fusion	100.4	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	98.70	1.00e+03		N/A
S961003079		F Bismuth - ICP-Fusion	104.2	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	98.70	1.00e+03		N/A
S961003079		F Calcium - ICP-Fusion	102.6	<5.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	2.01e+03		N/A
S961003079		F Cadmium - ICP-Fusion	100.4	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	2.01e+03		N/A
S961003079		F Cerium - ICP-Fusion	100.4	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	2.01e+03		N/A
S961003079		F Cobalt - ICP-Fusion	100.4	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	2.01e+03		N/A
S961003079		F Chromium - ICP-Fusion	104.2	<1.00e-02	<2.01e+02	<2.03e+02	2.03e+03	104	105.0	2.01e+03		N/A
S961003079		F Copper - ICP-Fusion	102.2	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	105.0	2.01e+03		N/A
S961003079		F Iron - ICP-Fusion	95.20	<5.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	105.0	1.00e+03		N/A
S961003079		F Potassium - ICP-Fusion	99.20	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	107.0	1.00e+03		N/A
S961003079		F Lanthanum - ICP-Fusion	99.20	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	107.0	1.00e+03		N/A
S961003079		F Lithium - ICP-Fusion	101.4	<1.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	102.0	1.00e+03		N/A
S961003079		F Magnesium - ICP-Fusion	99.40	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	2.01e+03		N/A
S961003079		F Manganese - ICP-Fusion	98.80	<1.00e-02	<2.01e+02	<2.03e+02	1.99e+03	105	98.00	2.01e+03		N/A
S961003079		F Molybdenum - ICP-Fusion	101.2	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	102.0	1.00e+03		N/A
S961003079		F Sodium - ICP-Fusion	100.4	1.23e-01	1.54e+03	4.74e+04	1.01e+05	106	126.0	2.01e+03		N/A
S961003079		F Neodymium - ICP-Fusion	103.4	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	106.0	2.01e+03		N/A
S961003079		F Nickel - ICP-Fusion	99.80	<2.50e-02	<2.01e+02	<2.03e+02	1.92e+03	137	98.40	4.61e+03		N/A
S961003079		F Phosphorus - ICP-Fusion	100.2	<2.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	4.01e+03		N/A
S961003079		F Lead - ICP-Fusion	99.20	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	4.01e+03		N/A
S961003079		F Sulfur - ICP-Fusion	102.0	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	4.01e+03		N/A
S961003079		F Antimony - ICP-Fusion	95.20	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	105.0	2.01e+03		N/A
S961003079		F Selenium - ICP-Fusion	102.2	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	106.0	2.01e+03		N/A
S961003079		F Silicon - ICP-Fusion	97.20	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	106.0	2.01e+03		N/A
S961003079		F Samarium - ICP-Fusion	100.0	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	4.01e+03		N/A
S961003079		F Strontium - ICP-Fusion	99.00	<1.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	107.0	4.01e+03		N/A
S961003079		F Titanium - ICP-Fusion	97.80	<1.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	100.0	2.01e+03		N/A
S961003079		F Vanadium - ICP-Fusion	97.80	<1.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	98.40	2.01e+03		N/A
S961003079		F Zirconium - ICP-Fusion	101.0	<5.00e-01	<2.01e+02	<2.03e+02	N/A	N/A	97.60	4.01e+03		N/A
S961003079		F Uranium - ICP-Fusion	101.8	<5.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	103.0	1.00e+03		N/A
S961003079		F Zirconium - ICP-Fusion	103.2	<1.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	103.0	2.01e+03		N/A
S961003079		F Zirconium - ICP-Fusion	99.20	<1.00e-02	<2.01e+02	<2.03e+02	N/A	N/A	100.0	2.01e+03		N/A

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S957003079	F	Cobalt-13 by GEA	uCi/g	103.5	< 5.3e-02	1.62e-01	< 7.45e-2	1.62e-01	17.5	107	N/A	39	39.0
S957003079	F	Cesium-137 by GEA	uCi/g	99.95	< 1.57e-01	1.73e-02	52.10	112.5	107	N/A	N/A	0.820	0.820
S957003079	F	Europium-154 by GEA	uCi/g	N/A	< 1.44e-01	1.32e-02	< 3.77e-1	N/A	N/A	N/A	N/A	45.2	45.2
S957003079	F	Europium-155 by GEA	uCi/g	N/A	< 1.81e-01	1.46e-02	< 4.59e-1	N/A	N/A	N/A	N/A	45.2	45.2
S957003079	F	Americium-241 by GEA	uCi/g	N/A	< 3.56e-01	< 1.95e-1	< 1.09e-0	N/A	N/A	N/A	N/A	1.965	1.965
S957003086	A	Silver - ICP-Acid Digest	uCi/g	94.00	< 1.00e-01	1.55	15.30	15.25	0.66	96.80	3.980	N/A	N/A
S957003086	A	Aluminum - ICP-Acid Digest	uCi/g	99.40	< 1.33e-01	1.21e-04	20e-04	1.20e-04	0.83	78.00	3.980	N/A	N/A
S957003086	A	Arsenic - ICP-Acid Digest	uCi/g	96.80	< 1.00e-01	< 39.80	< 4.00e-1	102.4	21.4	97.20	19.80	N/A	N/A
S957003086	A	Boron - ICP-Acid Digest	uCi/g	109.4	< 3.91e-01	1.13e-02	91.20	102.4	17.4	97.20	19.80	N/A	N/A
S957003086	A	Beryllium - ICP-Acid Digest	uCi/g	95.00	< 1.00e-02	< 19.90	< 2.00e-0	N/A	N/A	102.0	1.980	N/A	N/A
S957003086	A	Bismuth - ICP-Acid Digest	uCi/g	107.2	< 5.00e-03	< 1.990	< 2.00e-0	N/A	N/A	98.20	3.980	N/A	N/A
S957003086	A	Calcium - ICP-Acid Digest	uCi/g	95.00	< 1.00e-01	< 39.80	< 4.00e-1	34.0	2.94	96.80	3.980	N/A	N/A
S957003086	A	Cadmium - ICP-Acid Digest	uCi/g	94.00	< 1.39e-01	3.05e-03	33.5e-0	59.05	1.52	97.60	1.980	N/A	N/A
S957003086	A	Cerium - ICP-Acid Digest	uCi/g	93.40	< 5.00e-03	59.50	58.40	59.05	6.69	102.0	3.980	N/A	N/A
S957003086	A	Cobalt - ICP-Acid Digest	uCi/g	100.0	< 1.00e-01	95.40	102.0	98.70	6.69	102.0	3.980	N/A	N/A
S957003086	A	Chromium - ICP-Acid Digest	uCi/g	96.40	< 2.00e-02	< 7.970	< 7.99e-0	N/A	N/A	98.20	3.980	N/A	N/A
S957003086	A	Copper - ICP-Acid Digest	uCi/g	95.90	< 1.00e-02	3.38e-03	3.43e-03	3.40e-03	17.4	88.40	3.980	N/A	N/A
S957003086	A	Iron - ICP-Acid Digest	uCi/g	94.40	< 1.00e-02	20.00	19.30	19.45	3.52	93.40	3.980	N/A	N/A
S957003086	A	Potassium - ICP-Acid Digest	uCi/g	97.20	< 2.6e-01	2.96e-03	3.06e-03	3.01e-03	3.26	93.00	19.80	N/A	N/A
S957003086	A	Lanthanum - ICP-Acid Digest	uCi/g	89.40	< 5.00e-01	1.32e-03	1.31e-03	1.32e-03	0.76	100.2	19.80	N/A	N/A
S957003086	A	Lithium - ICP-Acid Digest	uCi/g	97.80	< 5.00e-02	42.40	42.90	42.65	1.17	99.20	19.80	N/A	N/A
S957003086	A	Magnesium - ICP-Acid Digest	uCi/g	91.00	< 1.00e-01	< 39.80	< 4.00e-1	N/A	N/A	100.0	3.980	N/A	N/A
S957003086	A	Manganese - ICP-Acid Digest	uCi/g	92.80	< 1.00e-02	3.76e-03	3.57e-03	3.57e-03	3.78	88.40	3.980	N/A	N/A
S957003086	A	Molybdenum - ICP-Acid Digest	uCi/g	95.40	< 5.00e-02	37.90	36.80	37.35	2.92	98.40	3.980	N/A	N/A
S957003086	A	Sodium - ICP-Acid Digest	uCi/g	120.0	< 6.36e-01	1.65e-05	1.62e-05	1.62e-05	0.62	-1.63e+2	3.980	N/A	N/A
S957003086	A	Nickel - ICP-Acid Digest	uCi/g	96.40	< 1.00e-01	1.27e-02	129.0	128.0	1.52	97.60	3.980	N/A	N/A
S957003086	A	Phosphorus - ICP-Acid Digest	uCi/g	94.40	< 2.00e-02	3.11e-02	307.0	309.0	1.26	96.40	7.960	N/A	N/A
S957003086	A	Lead - ICP-Acid Digest	uCi/g	96.60	< 2.00e-01	1.36e-03	1.65e-03	1.50e-03	19.3	87.40	79.60	N/A	N/A
S957003086	A	Sulfur - ICP-Acid Digest	uCi/g	90.60	< 1.00e-01	3.71e-02	379.0	375.0	2.13	93.00	39.80	N/A	N/A
S957003086	A	Antimony - ICP-Acid Digest	uCi/g	89.20	< 1.00e-02	3.22e-03	3.20e-03	3.21e-03	0.62	90.00	39.80	N/A	N/A
S957003086	A	Selenium - ICP-Acid Digest	uCi/g	91.80	< 6.00e-02	< 23.90	< 2.40e-1	N/A	N/A	93.20	39.80	N/A	N/A
S957003086	A	Silicon - ICP-Acid Digest	uCi/g	240.0	< 6.55e-01	< 39.80	< 4.00e-1	N/A	N/A	94.40	39.80	N/A	N/A
S957003086	A	Strontium - ICP-Acid Digest	uCi/g	95.60	< 1.00e-01	1.65e-02	207.0	186.0	22.6	114.4	19.90	N/A	N/A
S957003086	A	Titanium - ICP-Acid Digest	uCi/g	95.20	< 1.00e-02	< 39.80	< 4.00e-1	4.135	1.69	100.0	39.80	N/A	N/A
S957003086	A	Thallium - ICP-Acid Digest	uCi/g	93.80	< 2.00e-01	< 79.70	< 7.99e-0	N/A	N/A	96.40	3.980	N/A	N/A
S957003086	A	Thallium - ICP-Acid Digest	uCi/g	89.00	< 2.00e-01	< 79.70	< 7.99e-0	N/A	N/A	92.40	79.60	N/A	N/A
S957003086	A	Vanadium - ICP-Acid Digest	uCi/g	93.40	< 5.00e-01	6.31e-02	63.6e-0	63.5	0.79	95.30	199.0	N/A	N/A
S957003086	A	Vanadium - ICP-Acid Digest	uCi/g	94.40	< 5.00e-01	< 19.90	< 2.00e-1	N/A	N/A	96.80	19.90	N/A	N/A
S957003086	A	Zinc - ICP-Acid Digest	uCi/g	91.60	< 4.00e-02	63.10	67.70	65.40	7.03	95.30	3.980	N/A	N/A
S957003086	A	Zirconium - ICP-Acid Digest	uCi/g	94.20	< 1.00e-02	81.80	83.70	82.75	2.30	97.00	3.980	N/A	N/A
S957003093	U	Fluoride-IC-Dioxex 4000/4500	uCi/g	92.88	< 1.70e-02	< 53.42	< 5.34e-1	N/A	N/A	119.5	53.42	N/A	N/A
S957003093	U	Chloride-IC-Dioxex 4000/4500	uCi/g	94.56	< 1.70e-02	2.70e-03	2.63e-03	2.66e-03	2.92	107.4	70.12	N/A	N/A
S957003093	U	Nitrite-IC - Dioxex 4000/4500	uCi/g	100.9	< 1.27e-01	5.66e-04	5.74e-04	5.69e-04	1.76	112.1	4.12	N/A	N/A
S957003093	U	Bromide by Ion Chromatograph	uCi/g	102.4	< 1.26e-01	1.00e-03	1.01e-03	1.01e-03	1.00	106.0	519.8	N/A	N/A
S957003093	U	Nitrate by IC-Dioxex 4000/4500	uCi/g	102.0	< 1.49e-01	1.53e-05	1.53e-05	1.53e-05	0.00	92.90	577.8	N/A	N/A
S957003093	U	Phosphate-IC-Dioxex 4000/4500	uCi/g	95.23	< 1.19e-01	5.08e-03	3.02e-03	4.05e-03	50.9	92.90	490.4	N/A	N/A
S957003093	U	Sulfate by IC-Dioxex 4000/4500	uCi/g	102.4	< 1.36e-01	9.08e-03	8.26e-03	8.66e-03	4.89	101.4	584.3	N/A	N/A
S957003093	U	Dalate by IC-Dioxex 4000/4500	uCi/g	99.24	< 1.05e-01	9.40e-03	9.08e-03	9.34e-03	5.27	99.05	435.0	N/A	N/A

Drainable Liquid: Drainable Liquid

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec. %	Det Limit	Count Err%
S951003064		DSC Exotherm using Mettler	Joules/g	107.9	N/A	4.27e+02	433.0	420.1	3.40	N/A	N/A	N/A
S951003064		DSC Exotherm Dry Calculated	Joules/g Dry	N/A	N/A	8.20e+02	792.7	806.5	3.41	N/A	N/A	N/A
S951003064		Specific Gravity	Sp.G.	96.45	N/A	1.345	1.344	1.347	N/A	N/A	1.00e-03	N/A
S951003064		% Water by TGA using Mettler	%	99.85	N/A	4.759	48.20	47.90	1.27	N/A	N/A	N/A
S951003064		TIC Organic Carbon by Coul.	ug/mL	101.7	6.00e-01	4.16e+04	4.11e+04	4.14e+04	1.21	88.10	400.0	N/A
S951003064		TIC by Acid/Coulometry	ug/mL	98.84	3.900	9.79e+03	9.78e+03	9.78e+03	0.10	N/A	5.000	N/A
S951003064		TIC by Persulfate/Coulometry	ug/mL	90.33	3.300	3.34e+04	3.35e+04	3.34e+04	0.30	N/A	10.00	N/A
S951003064		b Silver-ICP-Acid DIL	ug/mL	94.40	< 1.00e-02	< 10.00	< 11.00e1	N/A	91.90	N/A	10.00	N/A
S951003064		b Aluminum-ICP-Acid DIL	ug/mL	98.80	< 5.00e-02	1.30e+02	1.26e+02	1.32e+02	9.81	-1.28e+02	50.10	N/A
S951003064		b Arsenic-ICP-Acid DIL	ug/mL	100.8	< 1.00e-01	< 1.00e+02	< 1.00e+02	52.10	0.77	105.0	50.10	N/A
S951003064		b Barium-ICP-Acid DIL	ug/mL	101.8	< 5.00e-02	< 5.00	< 5.01e1	N/A	102.0	N/A	50.10	N/A
S951003064		b Beryllium-ICP-Acid DIL	ug/mL	102.8	< 5.00e-03	< 5.00	< 10.0e1	N/A	102.0	N/A	50.10	N/A
S951003064		b Bismuth-ICP-Acid DIL	ug/mL	98.40	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	97.40	N/A	100.0	N/A
S951003064		b Calcium-ICP-Acid DIL	ug/mL	100.0	< 1.00e-01	< 1.00e+02	< 1.00e+02	41.0	6.31	99.20	100.0	N/A
S951003064		b Cadmium-ICP-Acid DIL	ug/mL	98.80	< 5.00e-03	93.90	93.10	93.50	0.56	103.0	50.00	N/A
S951003064		b Cerium-ICP-Acid DIL	ug/mL	101.4	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	103.0	N/A	100.0	N/A
S951003064		b Cobalt-ICP-Acid DIL	ug/mL	99.40	< 2.00e-02	< 20.00	< 2.00e1	N/A	103.0	N/A	10.00	N/A
S951003064		b Chromium-ICP-Acid DIL	ug/mL	98.80	< 1.00e-02	1.13e+03	456.0	793.0	85.0	55.80	10.00	N/A
S951003064		b Copper-ICP-Acid DIL	ug/mL	101.8	< 1.00e-02	3.32e+02	33.20	32.80	2.44	104.0	10.00	N/A
S951003064		b Iron-ICP-Acid DIL	ug/mL	100.4	< 5.00e-02	1.96e+03	2.04e+03	477.5	155	58.20	50.10	N/A
S951003064		b Potassium-ICP-Acid DIL	ug/mL	95.80	< 5.00e-01	8.48e+02	107.0	2.00e+03	4.00	124.0	50.00	N/A
S951003064		b Lanthanum-ICP-Acid DIL	ug/mL	101.0	< 5.00e-02	< 50.10	< 5.01e1	N/A	104.0	N/A	50.10	N/A
S951003064		b Lithium-ICP-Acid DIL	ug/mL	103.2	< 1.00e-02	< 10.00	< 1.00e1	N/A	104.0	N/A	50.10	N/A
S951003064		b Magnesium-ICP-Acid DIL	ug/mL	98.40	< 1.00e-02	7.77e+02	79.50	413.0	163	95.90	100.0	N/A
S951003064		b Molybdenum-ICP-Acid DIL	ug/mL	98.40	< 5.00e-02	6.2e+02	65.00	433.0	3.76	99.80	50.10	N/A
S951003064		b Sodium-ICP-Acid DIL	ug/mL	101.0	< 1.00e-01	2.35e+05	2.30e+05	2.32e+05	2.15	-3.15e+03	700.0	N/A
S951003064		b Niobium-ICP-Acid DIL	ug/mL	106.2	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	115.0	N/A	100.0	N/A
S951003064		b Nickel-ICP-Acid DIL	ug/mL	98.80	< 2.00e-02	5.47e+02	543.0	545.0	0.79	94.30	20.00	N/A
S951003064		b Phosphorus-ICP-Acid DIL	ug/mL	96.00	< 2.00e-01	1.25e+03	1.30e+03	1.26e+03	5.53	91.00	200.0	N/A
S951003064		b Lead-ICP-Acid DIL	ug/mL	100.4	< 1.00e-01	2.56e+02	209.0	232.5	20.2	95.90	100.0	N/A
S951003064		b Sulfur-ICP-Acid DIL	ug/mL	95.80	< 1.00e-01	3.18e+03	3.05e+03	3.12e+03	4.11	102.0	100.0	N/A
S951003064		b Antimony-ICP-Acid DIL	ug/mL	93.20	< 5.00e-02	< 60.10	< 6.01e1	N/A	104.0	N/A	60.10	N/A
S951003064		b Selenium-ICP-Acid DIL	ug/mL	101.8	< 1.00e-01	1.33e+02	157.0	145.0	16.5	108.0	100.0	N/A
S951003064		b Silicon-ICP-Acid DIL	ug/mL	97.00	< 5.00e-02	1.29e+02	< 5.01e1	N/A	95.30	50.10	10.00	N/A
S951003064		b Strontium-ICP-Acid DIL	ug/mL	101.6	< 1.00e-01	< 1.00e+02	< 1.00e+02	N/A	103.0	N/A	100.0	N/A
S951003064		b Tantalum-ICP-Acid DIL	ug/mL	99.40	< 1.00e-02	< 10.00	< 1.00e1	N/A	102.0	N/A	10.00	N/A
S951003064		b Thallium-ICP-Acid DIL	ug/mL	97.40	< 1.00e-02	< 10.00	< 1.00e1	N/A	99.30	10.00	10.00	N/A
S951003064		b Thallium-ICP-Acid DIL	ug/mL	97.40	< 2.00e-01	< 2.00e+02	< 2.00e+02	N/A	102.0	N/A	200.0	N/A
S951003064		b Uranium-ICP-Acid DIL	ug/mL	94.30	< 5.00e-01	< 5.00e+02	< 5.00e+02	N/A	92.00	N/A	50.10	N/A
S951003064		b Vanadium-ICP-Acid DIL	ug/mL	98.80	< 5.00e-02	< 50.10	< 5.01e1	N/A	104.0	N/A	50.10	N/A
S951003064		b Zinc-ICP-Acid DIL	ug/mL	98.40	< 1.00e-02	39.40	20.80	30.10	61.5	101.0	10.00	N/A
S951003064		b Zirconium-ICP-Acid DIL	ug/mL	98.20	< 1.00e-02	26.40	< 1.00e1	N/A	99.20	10.00	10.00	N/A
S951003064		Fluoride-IC-Henox 4000/4500	ug/mL	107.6	< 1.30e-02	< 1.33e+02	< 1.33e+02	N/A	N/A	N/A	192.6	N/A
S951003064		Chloride-IC-Henox 4000/4500	ug/mL	104.6	< 1.70e-02	5.77e+03	5.86e+03	5.82e+03	1.55	N/A	173.4	N/A
S951003064		Nitrite-IC - Dioxex 4000/4500	ug/mL	98.32	< 1.02e-01	9.90e+04	9.77e+04	9.83e+04	1.33	N/A	1.09e+03	N/A
S951003064		Bromide by Ion Chromatograph	ug/mL	99.32	< 1.26e-01	2.30e+03	2.17e+03	2.23e+03	5.36	N/A	1.28e+03	N/A

Sample#	R/L#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S961003064		Nitrate by IC-Dioxex 4000/4500	ug/ml	101.5	<1.40e-01	2.62e+05	2.62e+05	2.62e+05	0.00	n/a	1.63e+03	n/a
S961003064		Phosphate-IC-Dioxex 4000/4500	ug/ml	102.2	<1.19e-01	3.00e+03	3.47e+03	3.26e+03	14.5	n/a	1.29e+03	n/a
S961003064		Sulfate by IC-Dioxex 4000/4500	ug/ml	102.7	<1.36e-01	9.56e+03	9.56e+03	9.56e+03	0.00	n/a	1.50e+03	n/a
S961003064		Oxalate by IC-Dioxex 4000/4500	ug/ml	105.1	<1.05e-01	9.76e+03	1.03e+04	1.00e+04	5.38	n/a	1.07e+03	n/a
S961003064		Alpha in Liquid Samples	uc1/ml	96.09	<4.16e-02	3.13e-01	2.26e-01	2.70e-01	32.3	89.69	1.09e-01	3.53e+01

Table 1. Data Summary Table
U-106 (P)

SEGMENT PORTION: U Upper Half of Segment

Sample#	R#	Unit	Standard	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limi	Count Err%
S9451003066	97.22	Cyentide Water Distillation	us/g	<1.0e-02	41.30	41.60	41.35	0.24	72.60	1.60	n/a
S9451003066	104.0	DSC Exotherm using Mettler	joules/g	3.46e+02	373.0	378.9	344.6	0.93	n/a	n/a	n/a
S9451003066	99.8	DSC Exotherm Dry Calculated	joules/g Dry	n/a	5.36e+02	575.9	581.6	0.93	n/a	n/a	n/a
S9451003066	101.6	% Water by TGA using Mettler	%	2.90	12.12	39.37	40.7	0.75	n/a	n/a	n/a
S9451003066	99.8	ILC by Acid/Coulometry	us/g	2.90	1.28e+04	1.30e+04	1.29e+04	1.55	n/a	5.00	n/a
S9451003080	92.62	TOP by Persulfate/Coulometry	us/g	10.50	2.65e+02	2.43e+02	2.63e+02	1.52	n/a	4.00	n/a
S9451003080	99.40	F Silver - ICP-Fusion	us/g	<1.00e-02	<2.05e+02	<2.00e2	n/a	n/a	92.00	205.0	n/a
S9451003080	103.4	F Aluminum - ICP-Fusion	us/g	<5.00e-03	1.19e+03	2.26e+03	1.72e+03	64.0	18.60	1.02e+03	n/a
S9451003080	100.4	F Arsenic - ICP-Fusion	us/g	<1.00e-01	<1.02e+03	<2.00e3	n/a	n/a	97.40	2.05e+03	n/a
S9451003080	100.4	F Boron - ICP-Fusion	us/g	<5.00e-02	<1.02e+03	<9.99e2	n/a	n/a	99.40	1.02e+03	n/a
S9451003080	98.40	F Barium - ICP-Fusion	us/g	<5.00e-02	<1.02e+02	<9.99e1	n/a	n/a	96.10	2.05e+03	n/a
S9451003080	104.2	F Beryllium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	105.0	2.05e+03	n/a
S9451003080	100.2	F Bismuth - ICP-Fusion	us/g	<1.00e-01	<1.02e+02	<9.99e1	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	102.4	F Calcium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	105.0	2.05e+03	n/a
S9451003080	100.4	F Cadmium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	100.4	F Cerium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	101.6	F Cobalt - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	101.6	F Chromium - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	102.2	F Copper - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	104.2	F Iron - ICP-Fusion	us/g	<5.00e-02	<2.05e+03	<2.00e3	n/a	n/a	104.0	2.05e+03	n/a
S9451003080	95.20	F Potassium - ICP-Fusion	us/g	<5.00e-01	6.72e+06	n/a	n/a	n/a	98.70	1.02e+03	n/a
S9451003080	99.20	F Lithium - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<9.99e2	n/a	n/a	98.70	1.02e+03	n/a
S9451003080	101.4	F Lithium - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	98.80	2.05e+03	n/a
S9451003080	99.40	F Magnesium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	96.50	2.05e+03	n/a
S9451003080	98.80	F Manganese - ICP-Fusion	us/g	<1.00e-02	9.02e+02	1.75e+03	1.35e+03	64.0	96.50	2.05e+03	n/a
S9451003080	101.2	F Molybdenum - ICP-Fusion	us/g	<1.00e-02	<1.02e+03	<9.99e2	n/a	n/a	94.70	2.05e+03	n/a
S9451003080	100.4	F Sodium - ICP-Fusion	us/g	1.23e-01	1.80e+03	3.48e+05	2.64e+05	63.6	104.0	2.05e+03	n/a
S9451003080	103.4	F Neodymium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	101.0	2.05e+03	n/a
S9451003080	99.80	F Nickel - ICP-Fusion	us/g	<2.50e-02	1.17e+03	4.64e+03	2.90e+03	119	101.0	4.10e+03	n/a
S9451003080	99.20	F Phosphorus - ICP-Fusion	us/g	<1.00e-01	<4.10e+03	4.06e+03	n/a	n/a	107.0	4.10e+03	n/a
S9451003080	99.20	F Lead - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	100.0	2.05e+03	n/a
S9451003080	105.20	F Sulfur - ICP-Fusion	us/g	<1.00e-01	4.39e+03	8.35e+03	6.37e+03	62.2	101.0	2.05e+03	n/a
S9451003080	95.20	F Antimony - ICP-Fusion	us/g	<1.00e-02	<1.20e+03	<1.20e3	n/a	n/a	96.70	2.05e+03	n/a
S9451003080	102.2	F Selenium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	106.0	2.05e+03	n/a
S9451003080	97.20	F Silicon - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<9.99e2	n/a	n/a	100.0	2.05e+03	n/a
S9451003080	100.0	F Strontium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	99.40	2.05e+03	n/a
S9451003080	99.00	F Strontium - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	98.70	2.05e+03	n/a
S9451003080	97.80	F Titanium - ICP-Fusion	us/g	<1.00e-01	<2.05e+03	<2.00e3	n/a	n/a	97.80	2.05e+03	n/a
S9451003080	98.60	F Thallium - ICP-Fusion	us/g	<2.00e-01	<4.10e+03	<4.00e3	n/a	n/a	97.30	4.10e+03	n/a
S9451003080	101.0	F Uranium - ICP-Fusion	us/g	<5.00e-01	<1.02e+04	<9.99e3	n/a	n/a	96.50	1.02e+04	n/a
S9451003080	101.8	F Vanadium - ICP-Fusion	us/g	<1.00e-02	<1.02e+03	<9.99e2	n/a	n/a	102.0	1.02e+03	n/a
S9451003080	103.2	F Zinc - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	104.0	2.05e+03	n/a
S9451003080	99.20	F Zirconium - ICP-Fusion	us/g	<1.00e-02	<2.05e+03	<2.00e3	n/a	n/a	98.80	2.05e+03	n/a

WHC-SD-WM-DP-191, REV. I

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S961003080	F	Cobalt-60 by GEA	uCi/g	103.5	< 6.30e-02	1.88e+01	1.69e+01	1.78e+01	10.6	n/a	n/a	29.8	n/a
S961003080	F	Cesium-137 by GEA	uCi/g	99.95	< 1.57e-01	1.89e+02	1.86e+02	1.87e+02	1.60	n/a	n/a	0.790	n/a
S961003080	F	Europium-154 by GEA	uCi/g	n/a	< 1.84e-01	1.570	< 1.770	1.675	11.3	n/a	9.11e-01	13.4	n/a
S961003080	F	Europium-155 by GEA	uCi/g	n/a	< 1.41e-01	< 9.11e-01	< 1.10e+01	< 1.0e+01	n/a	n/a	n/a	n/a	n/a
S961003080	F	Americium-241 by GEA	uCi/g	n/a	< 3.56e-01	< 2.03e	< 2.63e	< 2.33e	n/a	n/a	n/a	2.036	n/a
S961003087	A	Aluminum - ICP-Acid Digest	uCi/g	94.00	< 1.00e-02	1.08e+02	1.16e+02	1.65e+02	0.62	n/a	3.980	n/a	n/a
S961003087	A	Arsenic - ICP-Acid Digest	uCi/g	99.40	< 1.33e-01	< 36.80	< 39.80	82.65	36.2	n/a	39.80	n/a	n/a
S961003087	A	Boron - ICP-Acid Digest	uCi/g	109.4	< 3.91e-01	< 47.70	< 67.60	82.65	36.2	n/a	39.80	n/a	n/a
S961003087	A	Barium - ICP-Acid Digest	uCi/g	95.00	< 2.00e-02	< 19.50	< 19.50	n/a	n/a	n/a	19.50	n/a	n/a
S961003087	A	Beryllium - ICP-Acid Digest	uCi/g	107.2	< 5.00e-03	< 1.990	< 1.990	n/a	n/a	n/a	19.50	n/a	n/a
S961003087	A	Bismuth - ICP-Acid Digest	uCi/g	95.00	< 1.00e-02	< 39.80	< 39.80	356.0	1.19	n/a	39.80	n/a	n/a
S961003087	A	Calcium - ICP-Acid Digest	uCi/g	94.00	< 1.39e-01	3.82e+02	3.84e+02	356.0	1.19	n/a	39.80	n/a	n/a
S961003087	A	Cadmium - ICP-Acid Digest	uCi/g	93.40	< 5.00e-03	56.70	57.30	71.00	1.05	n/a	1.990	n/a	n/a
S961003087	A	Cerium - ICP-Acid Digest	uCi/g	100.0	< 1.00e-01	< 76.20	< 76.20	73.90	1.84	n/a	39.80	n/a	n/a
S961003087	A	Cobalt - ICP-Acid Digest	uCi/g	95.00	< 1.00e-02	2.93e+03	2.97e+03	2.95e+03	1.36	n/a	3.980	n/a	n/a
S961003087	A	Chromium - ICP-Acid Digest	uCi/g	95.00	< 1.00e-02	1.95e+02	2.07e+02	3.02e+03	1.65	n/a	19.50	n/a	n/a
S961003087	A	Copper - ICP-Acid Digest	uCi/g	94.60	< 1.00e-02	1.37e+03	1.39e+03	1.35e+03	3.03	n/a	19.50	n/a	n/a
S961003087	A	Iron - ICP-Acid Digest	uCi/g	97.20	< 2.6e-01	3.00e+03	3.11e+03	41.70	1.44	n/a	39.80	n/a	n/a
S961003087	A	Lanthanum - ICP-Acid Digest	uCi/g	89.40	< 5.00e-02	< 4.70	< 4.70	n/a	n/a	n/a	39.80	n/a	n/a
S961003087	A	Lithium - ICP-Acid Digest	uCi/g	97.80	< 5.00e-02	< 3.980	< 3.980	n/a	n/a	n/a	39.80	n/a	n/a
S961003087	A	Magnesium - ICP-Acid Digest	uCi/g	91.00	< 1.00e-01	8.80e+02	8.97e+02	888.3	1.91	n/a	39.80	n/a	n/a
S961003087	A	Manganese - ICP-Acid Digest	uCi/g	92.80	< 1.00e-02	3.60e+02	3.60e+02	365.00	0.60	n/a	19.50	n/a	n/a
S961003087	A	Molybdenum - ICP-Acid Digest	uCi/g	95.40	< 5.00e-02	1.67e+05	1.66e+05	1.66e+05	0.60	n/a	39.80	n/a	n/a
S961003087	A	Nickel - ICP-Acid Digest	uCi/g	96.40	< 1.00e-01	1.37e+03	1.18e+03	300.2	0.63	n/a	39.80	n/a	n/a
S961003087	A	Niobium - ICP-Acid Digest	uCi/g	96.60	< 2.00e-02	3.00e+03	3.01e+03	300.2	0.33	n/a	39.80	n/a	n/a
S961003087	A	Phosphorus - ICP-Acid Digest	uCi/g	90.60	< 1.00e-01	1.98e+03	2.07e+03	2.02e+03	4.44	n/a	79.60	n/a	n/a
S961003087	A	Lead - ICP-Acid Digest	uCi/g	90.60	< 1.00e-01	3.77e+03	3.63e+03	3.65e+03	1.16	n/a	39.80	n/a	n/a
S961003087	A	Antimony - ICP-Acid Digest	uCi/g	89.20	< 5.00e-02	4.07e+03	4.06e+03	0.45	n/a	n/a	39.80	n/a	n/a
S961003087	A	Selenium - ICP-Acid Digest	uCi/g	91.80	< 1.00e-01	< 39.80	< 39.80	n/a	n/a	n/a	39.80	n/a	n/a
S961003087	A	Silicon - ICP-Acid Digest	uCi/g	24.0	< 6.35e-01	1.78e+02	1.90e+02	184.0	6.52	n/a	39.80	n/a	n/a
S961003087	A	Samarium - ICP-Acid Digest	uCi/g	95.60	< 1.00e-02	< 39.80	< 39.80	n/a	n/a	n/a	39.80	n/a	n/a
S961003087	A	Strontium - ICP-Acid Digest	uCi/g	95.20	< 1.00e-02	< 3.980	< 3.980	n/a	n/a	n/a	39.80	n/a	n/a
S961003087	A	Titanium - ICP-Acid Digest	uCi/g	93.80	< 1.00e-02	< 3.980	< 3.980	n/a	n/a	n/a	3.980	n/a	n/a
S961003087	A	Thallium - ICP-Acid Digest	uCi/g	89.00	< 2.00e-01	< 70.60	< 70.60	n/a	n/a	n/a	19.50	n/a	n/a
S961003087	A	Uranium - ICP-Acid Digest	uCi/g	93.40	< 5.00e-01	7.24e+02	7.29e+02	726.6	0.69	n/a	19.50	n/a	n/a
S961003087	A	Vanadium - ICP-Acid Digest	uCi/g	94.40	< 5.00e-02	< 19.90	< 19.90	56.15	n/a	n/a	19.50	n/a	n/a
S961003087	A	Zinc - ICP-Acid Digest	uCi/g	91.60	< 8.80e-02	8.60e+02	5.81e+02	56.15	0.40	n/a	3.980	n/a	n/a
S961003087	A	Zirconium - ICP-Acid Digest	uCi/g	94.20	< 1.00e-02	59.70	90.20	89.95	0.56	n/a	3.980	n/a	n/a
S961003094	U	Fluoride - IC-Dioxin 4000/4500	uCi/g	92.88	< 3.00e-02	< 53.02	< 53.02	2.77e+03	n/a	n/a	53.02	n/a	n/a
S961003094	U	Chloride - IC-Dioxin 4000/4500	uCi/g	94.56	< 1.70e-02	2.88e+03	2.66e+03	3.79e+03	3.74	n/a	436.4	n/a	n/a
S961003094	U	Nitrite - IC - Dioxin 4000/4500	uCi/g	100.9	< 1.07e-01	5.91e+02	5.68e+02	1.46e+03	6.06	n/a	513.9	n/a	n/a
S961003094	U	Bromide by Ion Chromatograph	uCi/g	102.4	< 1.24e-01	1.19e+03	1.12e+03	1.06e+03	1.35	n/a	570.6	n/a	n/a
S961003094	U	Nitrate by IC-Dioxin 4000/4500	uCi/g	102.0	< 1.49e-01	1.51e+05	1.51e+05	4.12e+03	3.71	n/a	484.9	n/a	n/a
S961003094	U	Phosphate - IC-Dioxin 4000/4500	uCi/g	95.23	< 1.19e-01	4.51e+02	5.12e+02	1.88e+03	3.59	n/a	554.2	n/a	n/a
S961003094	U	Sulfate by IC-Dioxin 4000/4500	uCi/g	102.4	< 1.20e-02	1.20e+02	1.15e+02	1.15e+02	3.71	n/a	554.2	n/a	n/a
S961003094	U	Oxalate by IC-Dioxin 4000/4500	uCi/g	99.24	< 1.05e-01	9.29e+03	9.15e+03	9.32e+03	3.65	n/a	428.2	n/a	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S961003049		Bulk Density of Sample	g/ml	n/a	n/a	1.490	n/a	19.60	12.0	n/a	5.00e-03	n/a	n/a
S961003070		Glycidic Water Distillation	n/a	109.7	<2.75e-02	22.10	19.60	20.85	12.0	105.5	6.670	n/a	n/a
S961003070		DSC Exotherm using Mettler	Joules/g	109.7	n/a	3.4e+02	355.3	334.5	12.6	n/a	n/a	n/a	n/a
S961003070		DSC Exotherm DRY Calculated	Joules/g	n/a	n/a	5.25e+02	595.3	560.7	12.6	n/a	n/a	n/a	n/a
S961003070		% Water by TGA using Mettler	%	98.99	n/a	40.43	40.13	40.28	0.74	n/a	n/a	n/a	n/a
S961003070		TIC by Acid/Coulometry	ug/g	98.99	1.00e-01	1.26e-04	1.49e-04	1.37e-04	16.1	n/a	5.000	n/a	n/a
S961003070		TOC by Persulfate/Coulometry	ug/g	100.7	2.00e-02	1.92e-04	1.50e-04	1.71e-04	24.6	n/a	40.000	n/a	n/a
S961003083		F Silicon - ICP-Fusion	ug/g	99.00	<1.00e-02	<2.03e-03	<2.03e-03	1.9e-04	1.58	105.0	2.06e-03	n/a	n/a
S961003083		F Aluminum - ICP-Fusion	ug/g	99.00	<5.00e-02	<1.18e-04	<2.03e-03	1.9e-04	1.58	105.0	2.06e-03	n/a	n/a
S961003083		F Boron - ICP-Fusion	ug/g	103.4	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Barium - ICP-Fusion	ug/g	98.40	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Beryllium - ICP-Fusion	ug/g	104.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Bismuth - ICP-Fusion	ug/g	104.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Calcium - ICP-Fusion	ug/g	102.6	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Cadmium - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Cerium - ICP-Fusion	ug/g	100.4	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Cobalt - ICP-Fusion	ug/g	101.0	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Chromium - ICP-Fusion	ug/g	101.6	<5.00e-02	<1.03e-03	<1.03e-03	3.00e-03	2.00	105.0	2.06e-03	n/a	n/a
S961003083		F Copper - ICP-Fusion	ug/g	104.2	<5.00e-02	<1.03e-03	<1.03e-03	2.96e-03	1.02	105.0	2.06e-03	n/a	n/a
S961003083		F Iron - ICP-Fusion	ug/g	102.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Potassium - ICP-Fusion	ug/g	95.20	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Lithium - ICP-Fusion	ug/g	99.20	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Magnesium - ICP-Fusion	ug/g	101.4	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Manganese - ICP-Fusion	ug/g	98.80	<5.00e-02	<1.03e-03	<1.03e-03	9.95	2.08	97.10	2.06e-03	n/a	n/a
S961003083		F Molybdenum - ICP-Fusion	ug/g	101.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Sodium - ICP-Fusion	ug/g	100.4	<5.00e-02	<1.03e-03	<1.03e-03	1.85e-05	1.08	105.0	2.06e-03	n/a	n/a
S961003083		F Nickel - ICP-Fusion	ug/g	103.4	<5.00e-02	<1.03e-03	<1.03e-03	6.72e-03	24.0	100.0	2.06e-03	n/a	n/a
S961003083		F Phosphorus - ICP-Fusion	ug/g	99.80	<5.00e-02	<1.03e-03	<1.03e-03	6.72e-03	24.0	100.0	2.06e-03	n/a	n/a
S961003083		F Lead - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Antimony - ICP-Fusion	ug/g	99.20	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Selenium - ICP-Fusion	ug/g	102.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Silicon - ICP-Fusion	ug/g	99.20	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Strontium - ICP-Fusion	ug/g	99.00	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Tantalum - ICP-Fusion	ug/g	97.80	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Thallium - ICP-Fusion	ug/g	98.60	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Uranium - ICP-Fusion	ug/g	101.0	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Vanadium - ICP-Fusion	ug/g	101.8	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Zinc - ICP-Fusion	ug/g	103.2	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Zirconium - ICP-Fusion	ug/g	99.20	<5.00e-02	<1.03e-03	<1.03e-03	n/a	n/a	105.0	2.06e-03	n/a	n/a
S961003083		F Cobalt-137 by GEA	ug/g	103.5	<5.00e-02	<1.03e-03	<1.03e-03	1.84e-01	184.0	n/a	1.02e-01	n/a	n/a
S961003083		F Europium-154 by GEA	ug/g	99.95	<5.00e-02	<1.03e-03	<1.03e-03	1.57e-01	157.0	n/a	1.02e-01	n/a	n/a
S961003083		F Europium-155 by GEA	ug/g	n/a	<5.00e-02	<1.03e-03	<1.03e-03	1.57e-01	157.0	n/a	1.02e-01	n/a	n/a

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD % Spk Rec %	Det Limit	Count Err%
S95003098	F	Arsenic-241 by GEA	uCi/g	n/a	< 3.5e-01	2.039	<2.08e0	1.105	n/a	7.00e-03	5.19E+00
S95003098	F	Alphas of Digested Solid	uCi/g	100.0	< 1.5e-02	1.070	<1.140	1.105	81.52	7.00e-03	5.19E+00
S95003098	F	Alphas of Digested Solid	uCi/g	94.00	< 1.00e-02	1.15e+04	16.80	16.90	1.18	94.40	3.860
S95003098	A	Silicon - ICP-Acid Digest	ug/g	99.40	< 1.33e-01	1.75e+04	1.15e+04	1.15e+04	0.10	94.40	19.30
S95003098	A	Aluminum - ICP-Acid Digest	ug/g	96.80	< 1.00e-01	38.40	<3.9e+1	n/a	97.20	94.40	38.60
S95003098	A	Arsenic - ICP-Acid Digest	ug/g	100.0	< 3.91e-01	81.60	79.00	80.05	2.62	100.5	19.30
S95003098	A	Boron - ICP-Acid Digest	ug/g	95.00	< 5.00e-02	< 19.30	<1.98e0	n/a	93.80	99.80	19.30
S95003098	A	Beryllium - ICP-Acid Digest	ug/g	107.2	< 5.00e-02	< 1.930	<3.9e+1	n/a	95.00	99.80	19.30
S95003098	A	Bismuth - ICP-Acid Digest	ug/g	95.00	< 1.00e-01	38.40	<3.9e+1	n/a	95.00	99.80	19.30
S95003098	A	Calcium - ICP-Acid Digest	ug/g	92.40	< 1.39e-01	3.56e+02	342.0	369.0	4.03	94.40	38.60
S95003098	A	Cadmium - ICP-Acid Digest	ug/g	92.40	< 5.00e-03	56.40	55.00	56.30	1.07	93.60	19.30
S95003098	A	Cerium - ICP-Acid Digest	ug/g	100.0	< 1.00e-01	78.70	77.80	78.25	1.15	99.00	38.60
S95003098	A	Cobalt - ICP-Acid Digest	ug/g	92.40	< 1.00e-02	< 7.710	<7.92e0	3.08e+03	0.32	96.00	2.760
S95003098	A	Copper - ICP-Acid Digest	ug/g	97.30	< 1.00e-02	3.09e+03	19.50	19.25	2.61	92.60	3.860
S95003098	A	Iron - ICP-Acid Digest	ug/g	97.30	< 2.2e-01	3.28e+03	3.27e+03	3.28e+03	0.31	97.60	19.30
S95003098	A	Lanthanum - ICP-Acid Digest	ug/g	89.60	< 5.00e-01	1.43e+03	1.6e+03	1.20e+03	5.86	100.40	19.30
S95003098	A	Lithium - ICP-Acid Digest	ug/g	97.80	< 1.00e-02	< 3.70	<3.9e+1	43.60	0.46	96.40	19.30
S95003098	A	Magnesium - ICP-Acid Digest	ug/g	91.00	< 1.00e-02	3.860	<3.9e+1	n/a	92.40	92.60	3.860
S95003098	A	Manganese - ICP-Acid Digest	ug/g	92.80	< 1.00e-02	9.52e+02	950.0	951.0	1.64	96.20	3.860
S95003098	A	Molybdenum - ICP-Acid Digest	ug/g	96.40	< 5.00e-02	36.50	35.90	36.20	0.22	88.20	19.30
S95003098	A	Sodium - ICP-Acid Digest	ug/g	120.0	< 6.36e-01	1.76e+05	1.73e+05	1.73e+05	1.72	-8.00e+2	38.60
S95003098	A	Strontium - ICP-Acid Digest	ug/g	96.40	< 2.00e-02	2.97e+02	298.0	297.5	0.82	94.20	38.60
S95003098	A	Thallium - ICP-Acid Digest	ug/g	92.40	< 2.00e-01	3.73e+03	3.55e+03	3.69e+03	3.44	93.40	77.20
S95003098	A	Tin - ICP-Acid Digest	ug/g	90.60	< 1.00e-01	4.67e+02	360.0	363.5	1.93	90.00	38.60
S95003098	A	Titanium - ICP-Acid Digest	ug/g	92.80	< 1.00e-01	4.08e+03	4.10e+03	4.09e+03	0.69	83.60	38.60
S95003098	A	Vanadium - ICP-Acid Digest	ug/g	89.20	< 6.00e-02	< 23.10	<2.38e1	n/a	91.20	91.20	23.20
S95003098	A	Zinc - ICP-Acid Digest	ug/g	91.80	< 1.00e-01	3.860	<3.9e+1	n/a	92.80	92.80	38.60
S95003098	A	Silicon - ICP-Acid Digest	ug/g	240.0	< 6.35e-01	2.26e+02	184.0	205.0	20.5	165.6	19.30
S95003098	A	Silicon - ICP-Acid Digest	ug/g	95.40	< 1.00e-01	38.60	<3.9e+1	n/a	97.20	97.20	38.60
S95003098	A	Silicon - ICP-Acid Digest	ug/g	95.20	< 1.00e-02	< 3.860	<3.9e+1	n/a	94.40	93.80	3.860
S95003098	A	Silicon - ICP-Acid Digest	ug/g	93.80	< 1.00e-02	< 3.860	<3.9e+1	n/a	94.40	93.80	3.860
S95003098	A	Thallium - ICP-Acid Digest	ug/g	89.00	< 2.00e-01	< 77.10	<7.92e1	n/a	92.00	92.00	77.20
S95003098	A	Vanadium - ICP-Acid Digest	ug/g	93.40	< 5.00e-01	4.84e+02	847.0	867.5	0.12	90.00	193.0
S95003098	A	Vanadium - ICP-Acid Digest	ug/g	94.40	< 5.00e-02	< 19.30	<1.98e0	n/a	94.20	94.20	19.30
S95003098	A	Zinc - ICP-Acid Digest	ug/g	91.40	< 4.80e-02	60.30	58.60	59.70	3.69	92.20	19.30
S95003098	A	Zinc - ICP-Acid Digest	ug/g	94.20	< 1.00e-02	76.50	80.30	78.40	4.85	96.60	3.860
S95003098	A	Zinc - ICP-Acid Digest	ug/g	97.97	< 1.30e-02	< 53.44	<5.34e1	3.08e+03	0.66	97.60	53.45
S95003095	W	Chloride [C-3] onex 4000/4500	ug/g	99.49	< 1.80e-02	3.25e+03	3.04e+03	3.14e+03	0.35	97.60	49.87
S95003095	W	Chloride [C-3] onex 4000/4500	ug/g	99.25	< 1.07e-01	5.75e+04	5.75e+04	5.75e+04	0.35	97.60	439.7
S95003095	W	Chloride [C-3] onex 4000/4500	ug/g	100.5	< 1.26e-01	< 5.18e+02	<5.18e2	1.49e+05	3.41	97.60	517.9
S95003095	W	Chloride [C-3] onex 4000/4500	ug/g	100.8	< 1.68e-01	< 1.44e+05	<1.44e+05	1.44e+05	3.41	97.60	575.0
S95003095	W	Fluoride [C-3] onex 4000/4500	ug/g	102.2	< 1.19e-01	9.83e+03	1.02e+04	1.00e+04	3.69	97.60	488.7
S95003095	W	Fluoride [C-3] onex 4000/4500	ug/g	101.4	< 1.36e-01	1.19e+04	1.18e+04	1.18e+04	0.84	97.60	558.7
S95003095	W	Sulfate [C-3] onex 4000/4500	ug/g	104.3	< 1.05e-01	1.10e+04	1.10e+04	1.10e+04	0.00	97.60	431.6

24-sep-1996 07:47:52
A-0002-3CORE NUMBER: 147
SEGMENT #: 4Table 1. Data Summary Table
U-106 (P)

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Unit	Standard %	Blank	Result	Duplicates	Average	RPD %	Skk Rec %	Det Limit	Count Err%
S961003067		Cyanide Water Distillation	97.22	<1.10e-02	42.00	42.00	42.00	0.00	n/a	1.320	n/a
S961003067		BSC Exotherm using Mettler	110.4	n/a	380.7	380.7	382.5	0.99	n/a	n/a	n/a
S961003067		BSC Exotherm DRY Calculated	110.4	n/a	7.03e+02	694.0	699.5	0.99	n/a	n/a	n/a
S961003067		% Water by IGA using Mettler	98.99	n/a	46.39	44.21	45.30	2.61	n/a	n/a	n/a
S961003067		TIC by Acid/Coulometry	101.0	2.900	1.30e+04	1.35e+04	1.32e+04	3.77	110.0	5.000	n/a
S961003067		TOC by Persulfate/Coulometry	92.67	<1.00e-02	2.59e+02	2.57e+02	2.58e+02	0.78	98.60	40.00	n/a
S961003081		F Silver - ICP-Fusion	102.2	<1.00e-02	2.02e+02	2.01e+02	n/a	n/a	96.90	1.01e+03	n/a
S961003081		F Aluminum - ICP-Fusion	99.60	<1.00e-01	2.26e+02	2.31e+02	2.28e+02	0.81	102.0	2.02e+03	n/a
S961003081		F Arsenic - ICP-Fusion	104.2	<1.00e-01	<2.02e+02	<2.01e+02	n/a	n/a	98.10	1.01e+03	n/a
S961003081		F Boron - ICP-Fusion	100.0	<1.00e-02	<1.01e+03	<1.01e+03	n/a	n/a	98.10	1.01e+03	n/a
S961003081		F Barium - ICP-Fusion	102.2	<1.00e-02	<1.01e+03	<1.01e+03	n/a	n/a	103.0	101.0	n/a
S961003081		F Bismuth - ICP-Fusion	104.2	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	108.0	2.02e+03	n/a
S961003081		F Calcium - ICP-Fusion	104.6	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	97.20	101.0	n/a
S961003081		F Cadmium - ICP-Fusion	102.6	<1.00e-02	<1.01e+02	<1.01e+02	n/a	n/a	107.0	2.02e+03	n/a
S961003081		F Cobalt - ICP-Fusion	103.2	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	107.0	104.0	n/a
S961003081		F Chromium - ICP-Fusion	104.4	<1.00e-02	<2.02e+03	<2.01e+03	3.24e+03	1.23	103.0	202.0	n/a
S961003081		F Copper - ICP-Fusion	105.2	<1.00e-02	<2.02e+03	<2.01e+03	3.15e+03	1.27	99.30	1.01e+03	n/a
S961003081		F Iron - ICP-Fusion	103.4	<1.00e-02	3.17e+03	3.13e+03	n/a	n/a	100.0	1.01e+04	n/a
S961003081		F Potassium - ICP-Fusion	104.6	<1.00e-01	<1.01e+03	<1.01e+03	n/a	n/a	98.70	2.02e+03	n/a
S961003081		F Lanthanum - ICP-Fusion	103.4	<1.00e-02	<2.02e+03	<2.01e+03	n/a	n/a	98.70	1.01e+03	n/a
S961003081		F Lithium - ICP-Fusion	101.0	<1.00e-02	<2.02e+03	<2.01e+03	n/a	n/a	95.20	2.02e+03	n/a
S961003081		F Magnesium - ICP-Fusion	99.20	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	95.20	2.02e+03	n/a
S961003081		F Manganese - ICP-Fusion	101.6	<1.00e-02	9.35e+02	924.0	933.5	2.04	95.40	2.02e+03	n/a
S961003081		F Molybdenum - ICP-Fusion	103.0	<1.00e-02	<1.01e+03	<1.01e+03	n/a	n/a	99.40	1.01e+03	n/a
S961003081		F Sodium - ICP-Fusion	101.0	1.910	2.13e+03	2.22e+03	2.18e+03	4.16	89.40	2.02e+03	n/a
S961003081		F Neodymium - ICP-Fusion	104.2	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	97.80	2.02e+03	n/a
S961003081		F Nickel - ICP-Fusion	102.6	<2.00e-02	6.68e+02	422.0	545.0	45.9	97.80	4.04e+03	n/a
S961003081		F Phosphorus - ICP-Fusion	105.0	<2.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	112.0	4.04e+03	n/a
S961003081		F Lead - ICP-Fusion	102.8	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	102.0	2.02e+03	n/a
S961003081		F Sulfur - ICP-Fusion	100.6	<1.00e-02	4.39e+03	4.03e+03	4.21e+03	8.55	95.20	2.02e+03	n/a
S961003081		F Antimony - ICP-Fusion	97.60	<1.00e-02	<1.21e+03	<1.21e+03	n/a	n/a	95.20	2.02e+03	n/a
S961003081		F Selenium - ICP-Fusion	99.00	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	95.90	1.01e+03	n/a
S961003081		F Silicon - ICP-Fusion	97.00	<1.00e-02	<2.02e+03	<2.01e+03	n/a	n/a	95.90	1.01e+03	n/a
S961003081		F Strontium - ICP-Fusion	100.8	<1.00e-01	<2.02e+03	<2.01e+03	n/a	n/a	98.30	2.02e+03	n/a
S961003081		F Tantalum - ICP-Fusion	101.2	<1.00e-02	<2.02e+03	<2.01e+03	n/a	n/a	98.30	2.02e+03	n/a
S961003081		F Thorium - ICP-Fusion	99.80	<1.00e-02	<2.02e+03	<2.01e+03	n/a	n/a	98.70	4.04e+03	n/a
S961003081		F Vanadium - ICP-Fusion	101.0	<2.00e-01	<1.01e+04	<1.01e+04	n/a	n/a	99.00	1.01e+04	n/a
S961003081		F Uranium - ICP-Fusion	98.20	<1.00e-02	<1.01e+04	<1.01e+04	n/a	n/a	99.00	1.01e+04	n/a
S961003081		F Zirconium - ICP-Fusion	102.8	<1.00e-02	<1.01e+03	<1.01e+03	n/a	n/a	99.00	1.01e+03	n/a
S961003081		F Zinc - ICP-Fusion	104.2	4.80e-02	9.24e+02	897.0	910.5	2.97	101.0	202.0	n/a
S961003081		F Zirconium - ICP-Fusion	101.0	<1.00e-02	<2.02e+03	<2.01e+03	n/a	n/a	97.10	202.0	n/a

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec.	Det Limit	Count Err%
3947003081	F	Cobalt-60 by GEA	uCi/g	103.5	< 6.30e-02	1.55e-01	1.32e-01	1.43e-01	1.43e-01	1.12	16.0	33.2
3947003081	F	Cobalt-137 by GEA	uCi/g	99.95	< 1.57e-01	1.70e-02	1.77e-02	1.78e-02	1.78e-02	1.12	17.0	0.810
3947003081	F	Euclutium-154 by GEA	uCi/g	174	< 1.84e-01	1.54e-01	1.550	1.549	0.00	17.0	17.0	13.7
3947003081	F	Euclutium-155 by GEA	uCi/g	174	< 1.41e-01	< 1.07e-01	< 2.00e-01	< 1.07e-01	17.0	17.0	1.012	17.0
3947003081	F	Euclutium-201 by GEA	uCi/g	94.00	< 5.56e-01	< 1.97e-01	< 2.00e-01	< 1.97e-01	17.0	17.0	1.012	17.0
3947003089	A	Silver-109-Acid Digest	uCi/g	94.00	< 1.00e-02	1.63e-01	1.63e-01	1.63e-01	1.63e-01	17.0	17.0	17.0
3947003089	A	Aluminum-109-Acid Digest	uCi/g	99.40	< 1.33e-01	1.16e-04	1.16e-04	1.17e-04	1.71	17.0	3.920	17.0
3947003089	A	Arsenic-109-Acid Digest	uCi/g	99.40	< 1.00e-01	< 39.10	< 4.01e-01	< 39.10	17.0	17.0	19.40	17.0
3947003089	A	Boron-109-Acid Digest	uCi/g	109.4	< 3.91e-01	90.70	88.90	89.80	2.00	17.0	19.40	17.0
3947003089	A	Bromine-109-Acid Digest	uCi/g	95.00	< 1.00e-02	< 19.40	< 2.00e-01	< 19.40	17.0	17.0	19.40	17.0
3947003089	A	Beryllium-109-Acid Digest	uCi/g	107.2	< 5.00e-02	< 1.960	< 2.00e-01	< 1.960	17.0	17.0	1.960	17.0
3947003089	A	Bismuth-109-Acid Digest	uCi/g	95.06	< 1.00e-01	< 39.10	< 4.01e-01	< 39.10	17.0	17.0	39.20	17.0
3947003089	A	Calcium-109-Acid Digest	uCi/g	94.40	< 1.39e-01	330.0	328.5	329.3	0.91	17.0	39.20	17.0
3947003089	A	Calcium-109-Acid Digest	uCi/g	95.40	< 1.00e-03	54.10	55.50	54.80	2.55	17.0	1.960	17.0
3947003089	A	Cadmium-109-Acid Digest	uCi/g	100.0	< 1.00e-01	74.20	79.70	77.95	4.42	17.0	39.20	17.0
3947003089	A	Cerium-109-Acid Digest	uCi/g	94.40	< 1.00e-02	< 7.850	< 8.01e-02	< 7.850	17.0	17.0	3.920	17.0
3947003089	A	Cobalt-60-Acid Digest	uCi/g	95.20	< 1.00e-02	3.94e-03	3.99e-03	3.04e-03	17.0	17.0	3.920	17.0
3947003089	A	Chromium-109-Acid Digest	uCi/g	94.60	< 1.00e-02	19.30	19.30	19.15	1.52	17.0	19.40	17.0
3947003089	A	Copper-109-Acid Digest	uCi/g	97.20	< 2.5e-01	3.99e-03	3.14e-03	3.12e-03	1.21	17.0	19.40	17.0
3947003089	A	Praseodym-109-Acid Digest	uCi/g	89.40	< 5.00e-01	1.21e-03	1.21e-03	1.21e-03	0.00	17.0	19.40	17.0
3947003089	A	Terbium-109-Acid Digest	uCi/g	97.80	< 1.00e-02	< 42.30	< 43.30	42.80	2.34	17.0	19.40	17.0
3947003089	A	Thallium-109-Acid Digest	uCi/g	91.00	< 1.00e-02	< 3.910	< 4.01e-01	< 3.910	17.0	17.0	3.920	17.0
3947003089	A	Thallium-109-Acid Digest	uCi/g	92.80	< 1.00e-02	8.99e-02	9.18e-02	9.08e-02	2.62	17.0	3.920	17.0
3947003089	A	Vanadium-109-Acid Digest	uCi/g	95.40	< 5.00e-02	34.10	35.30	35.20	6.22	17.0	19.40	17.0
3947003089	A	Neodymium-109-Acid Digest	uCi/g	120.0	< 6.34e-01	1.72e-05	1.67e-05	1.69e-05	2.37	17.0	39.20	17.0
3947003089	A	Nickel-109-Acid Digest	uCi/g	94.40	< 1.00e-01	1.20e-02	1.21e-02	2.87e-02	0.83	17.0	7.820	17.0
3947003089	A	Phosphorus-109-Acid Digest	uCi/g	94.60	< 2.00e-02	2.09e-03	2.13e-03	2.11e-03	1.90	17.0	78.20	17.0
3947003089	A	Lead-109-Acid Digest	uCi/g	90.60	< 1.00e-01	3.55e-02	3.59e-02	3.57e-02	1.12	17.0	39.20	17.0
3947003089	A	Sulfur-109-Acid Digest	uCi/g	92.80	< 1.00e-01	< 23.50	< 24.04e-01	< 23.50	17.0	17.0	39.20	17.0
3947003089	A	Sulfur-109-Acid Digest	uCi/g	89.20	< 4.00e-02	< 39.10	< 4.01e-01	< 39.10	17.0	17.0	19.40	17.0
3947003089	A	Selenium-109-Acid Digest	uCi/g	24.0	< 6.35e-01	2.12e-02	1.82e-02	1.97e-02	15.2	17.0	19.40	17.0
3947003089	A	Samarium-109-Acid Digest	uCi/g	95.60	< 1.00e-01	< 39.10	< 4.01e-01	< 39.10	17.0	17.0	39.20	17.0
3947003089	A	Strontium-109-Acid Digest	uCi/g	95.20	< 1.00e-02	< 3.910	< 4.01e-01	< 3.910	17.0	17.0	3.920	17.0
3947003089	A	Titanium-109-Acid Digest	uCi/g	93.80	< 1.00e-02	< 78.30	< 8.01e-01	< 78.30	17.0	17.0	3.920	17.0
3947003089	A	Thallium-109-Acid Digest	uCi/g	89.00	< 2.00e-01	< 78.30	< 8.01e-01	< 78.30	17.0	17.0	78.20	17.0
3947003089	A	Vanadium-109-Acid Digest	uCi/g	93.40	< 5.00e-01	7.88e-02	7.98e-02	7.93e-02	1.22	17.0	19.40	17.0
3947003089	A	Zinc-109-Acid Digest	uCi/g	94.40	< 8.00e-02	< 19.40	< 2.00e-01	< 19.40	17.0	17.0	19.40	17.0
3947003089	A	Zirconium-109-Acid Digest	uCi/g	91.60	< 1.00e-02	64.80	57.30	61.05	12.3	17.0	3.920	17.0
3947003089	A	Fluoride-109-Acid Digest	uCi/g	94.20	< 1.00e-02	90.90	91.80	91.35	0.99	17.0	3.920	17.0
3947003094	W	Chloride-109-Acid Digest	uCi/g	97.97	< 1.30e-02	< 53.55	< 5.38e-01	< 53.55	301.7	17.0	52.55	17.0
3947003094	W	Chloride-109-Acid Digest	uCi/g	99.49	< 1.80e-02	3.29e-03	3.29e-03	3.00e-03	2.32	96.20	70.03	17.0
3947003094	W	Chloride-109-Acid Digest	uCi/g	99.45	< 1.07e-01	5.63e-04	5.63e-04	5.63e-04	0.18	103.4	4.043	17.0
3947003094	W	Hydride-109-Acid Digest	uCi/g	100.5	< 1.26e-01	< 5.21e-02	< 5.21e-02	< 5.21e-02	17.0	98.44	519.1	17.0
3947003094	W	Hydride-109-Acid Digest	uCi/g	100.8	< 1.48e-01	1.50e-05	1.50e-05	1.50e-05	17.0	91.26	571.2	17.0
3947003094	W	Hydride-109-Acid Digest	uCi/g	102.2	< 1.19e-01	6.33e-03	6.33e-03	6.20e-03	4.19	102.0	489.2	17.0
3947003094	W	Phosphate-109-Acid Digest	uCi/g	101.6	< 1.32e-01	1.19e-04	1.17e-04	1.18e-04	1.49	102.0	559.9	17.0
3947003094	W	Sulfate-109-Acid Digest	uCi/g	104.3	< 1.05e-01	1.06e-04	1.05e-04	1.05e-04	0.92	104.3	432.6	17.0

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk. Rec.	Det. Limit	Count Err%
5961003897		Bulk Density of Sample	g/mL	109.9	<2.7e-02	21.30	23.00	22.15	7.6%	N/A	5.00e-01	N/A
5961003898		Cyanide Water Distillation	loges/g	109.7	17.8	3.69e+02	322.3	361.2	11.1	N/A	N/A	N/A
5961003898		ISC Exotherm Using Mettler	loges/g	109.7	17.8	6.19e+02	556.2	586.7	11.0	N/A	N/A	N/A
5961003898		ISC Exotherm Dry Calculated	loges/g	98.9	17.8	4.17e+02	41.96	41.87	0.45	N/A	N/A	N/A
5961003898		% Water by IGA using Mettler	%	98.9	17.8	4.17e+02	41.96	41.87	0.45	N/A	N/A	N/A
5961003898		IC by Acto/Counter	ug/g	98.9	3.00	1.35e+04	1.35e+04	1.43	131.0	1.00e+03	5.000	N/A
5961003898		IC by Persulfate/Coulometry	ug/g	91.33	2.00	2.45e+04	2.58e+04	2.51e+04	5.58	148.0	40.00	N/A
5961003898		F Silver - ICP-Fusion	ug/g	102.3	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	64.20	200.0	N/A
5961003898		F Aluminum - ICP-Fusion	ug/g	99.40	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	97.80	1.00e+03	N/A
5961003898		F Arsenic - ICP-Fusion	ug/g	104.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	105.0	2.00e+03	N/A
5961003898		F Boron - ICP-Fusion	ug/g	100.0	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	98.50	1.00e+03	N/A
5961003898		F Barium - ICP-Fusion	ug/g	102.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	101.0	1.00e+03	N/A
5961003898		F Beryllium - ICP-Fusion	ug/g	104.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	105.0	2.00e+03	N/A
5961003898		F Bismuth - ICP-Fusion	ug/g	104.3	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	106.0	2.00e+03	N/A
5961003898		F Calcium - ICP-Fusion	ug/g	102.6	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	100.0	N/A
5961003898		F Cadmium - ICP-Fusion	ug/g	102.4	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	103.0	200.0	N/A
5961003898		F Cerium - ICP-Fusion	ug/g	103.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	101.0	1.00e+03	N/A
5961003898		F Cobalt - ICP-Fusion	ug/g	104.3	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.40	100.0	N/A
5961003898		F Chromium - ICP-Fusion	ug/g	104.3	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	101.0	1.00e+03	N/A
5961003898		F Copper - ICP-Fusion	ug/g	102.4	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	103.0	200.0	N/A
5961003898		F Iron - ICP-Fusion	ug/g	102.4	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	101.0	1.00e+03	N/A
5961003898		F Potassium - ICP-Fusion	ug/g	102.4	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	2.00e+03	N/A
5961003898		F Lanthanum - ICP-Fusion	ug/g	101.6	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	96.90	200.0	N/A
5961003898		F Lithium - ICP-Fusion	ug/g	97.20	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	96.90	2.00e+03	N/A
5961003898		F Magnesium - ICP-Fusion	ug/g	101.6	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	1.00e+03	N/A
5961003898		F Manganese - ICP-Fusion	ug/g	103.0	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	2.00e+03	N/A
5961003898		F Molybdenum - ICP-Fusion	ug/g	104.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	103.0	2.00e+03	N/A
5961003898		F Sodium - ICP-Fusion	ug/g	104.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	200.0	N/A
5961003898		F Neodymium - ICP-Fusion	ug/g	102.4	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	101.0	1.00e+03	N/A
5961003898		F Nickel - ICP-Fusion	ug/g	105.0	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	2.00e+03	N/A
5961003898		F Phosphorus - ICP-Fusion	ug/g	102.8	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	2.00e+03	N/A
5961003898		F Lead - ICP-Fusion	ug/g	100.6	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.30	400.0	N/A
5961003898		F Silver - ICP-Fusion	ug/g	97.40	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	116.0	4.01e+03	N/A
5961003898		F Antimony - ICP-Fusion	ug/g	99.00	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	100.0	2.00e+03	N/A
5961003898		F Selenium - ICP-Fusion	ug/g	97.00	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	96.00	1.20e+03	N/A
5961003898		F Silicon - ICP-Fusion	ug/g	100.8	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	98.20	1.00e+03	N/A
5961003898		F Sulfur - ICP-Fusion	ug/g	100.8	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	96.80	2.00e+03	N/A
5961003898		F Tellurium - ICP-Fusion	ug/g	99.80	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.20	200.0	N/A
5961003898		F Thallium - ICP-Fusion	ug/g	99.80	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	96.90	200.0	N/A
5961003898		F Vanadium - ICP-Fusion	ug/g	104.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	97.70	4.01e+03	N/A
5961003898		F Uranium - ICP-Fusion	ug/g	98.20	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.50	1.00e+03	N/A
5961003898		F Vanadium - ICP-Fusion	ug/g	104.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	99.50	1.00e+03	N/A
5961003898		F Zinc - ICP-Fusion	ug/g	102.4	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	100.0	200.0	N/A
5961003898		F Zirconium - ICP-Fusion	ug/g	103.2	<1.00e-02	<1.00e+02	<1.00e+02	<1.00e+02	N/A	97.80	200.0	N/A
5961003898		F Cobalt-60 by GEA	uc/g	99.9	<1.5e-01	1.77e+01	1.77e+01	1.76e+01	0.59	N/A	N/A	37.9
5961003898		F Europium-154 by GEA	uc/g	99.9	<1.5e-01	1.77e+01	1.77e+01	1.76e+01	0.59	N/A	N/A	0.910
5961003898		F Europium-154 by GEA	uc/g	N/A	<1.4e-01	1.470	1.470	1.640	11.0	N/A	N/A	12.1
5961003898		F Europium-155 by GEA	uc/g	N/A	<1.4e-01	<0.07e-01	<0.07e-01	<0.07e-01	N/A	N/A	9.07e-01	N/A

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Error
S957003094	F	Americium-241 by GEA	uCi/g	n/a	< 3.52e-03	1.978	<2.00e0	1.978	n/a	n/a	1.978	n/a
S957003094	F	Alpha of Digested Solid	uCi/g	107.8	< 5.2e-03	1.260	1.330	1.295	5.4	n/a	7.00e-03	4.66e+00
S957003094	A	Silver - ICP-Acid Digest	ug/g	94.00	< 1.00e-02	18.60	16.70	17.65	10.8	n/a	3.940	n/a
S957003090	A	Aluminum - ICP-Acid Digest	ug/g	99.40	< 1.33e-01	1.23e+04	1.20e+04	1.22e+04	2.47	n/a	19.70	n/a
S957003090	A	Arsenic - ICP-Acid Digest	ug/g	96.80	< 1.00e-01	39.50	<3.92e1	60.70	n/a	n/a	39.40	n/a
S957003090	A	Boron - ICP-Acid Digest	ug/g	109.4	< 3.91e-01	75.60	60.70	68.15	21.9	n/a	19.70	n/a
S957003090	A	Barium - ICP-Acid Digest	ug/g	95.00	< 5.00e-02	19.70	<1.96e0	n/a	n/a	n/a	19.70	n/a
S957003090	A	Bismuth - ICP-Acid Digest	ug/g	107.2	< 5.00e-03	1.970	<3.92e1	n/a	n/a	n/a	19.70	n/a
S957003090	A	Calcium - ICP-Acid Digest	ug/g	95.00	< 1.00e-01	39.50	<3.92e1	334.5	2.69	n/a	39.40	n/a
S957003090	A	Cadmium - ICP-Acid Digest	ug/g	96.40	< 1.33e-01	39.50	33.0	36.25	2.69	n/a	39.40	n/a
S957003090	A	Cerium - ICP-Acid Digest	ug/g	93.60	< 5.00e-03	55.60	55.20	55.90	2.50	n/a	39.40	n/a
S957003090	A	Cobalt - ICP-Acid Digest	ug/g	100.0	< 1.00e-01	77.90	77.90	77.90	0.00	n/a	39.40	n/a
S957003090	A	Chromium - ICP-Acid Digest	ug/g	96.40	< 2.00e-02	7.890	<7.84e0	n/a	n/a	n/a	19.70	n/a
S957003090	A	Chromium - ICP-Acid Digest	ug/g	95.20	< 1.00e-02	3.15e+03	3.08e+03	3.12e+03	n/a	n/a	19.70	n/a
S957003090	A	Copper - ICP-Acid Digest	ug/g	94.60	< 2.76e-01	3.27e+03	3.20e+03	3.24e+03	3.62	n/a	3.940	n/a
S957003090	A	Potassium - ICP-Acid Digest	ug/g	89.40	< 2.00e-02	19.70	19.70	19.33	2.62	n/a	19.70	n/a
S957003090	A	Lanthanum - ICP-Acid Digest	ug/g	89.40	< 5.00e-01	1.12e+03	1.28e+03	1.20e+03	5.53	n/a	19.70	n/a
S957003090	A	Lithium - ICP-Acid Digest	ug/g	97.20	< 1.00e-02	43.50	<3.92e0	43.05	2.09	n/a	19.70	n/a
S957003090	A	Magnesium - ICP-Acid Digest	ug/g	91.00	< 1.00e-02	3.950	<3.92e0	n/a	n/a	n/a	3.940	n/a
S957003090	A	Manganese - ICP-Acid Digest	ug/g	92.80	< 1.00e-02	9.50e+02	928.0	919.8	2.64	n/a	3.940	n/a
S957003090	A	Molybdenum - ICP-Acid Digest	ug/g	95.60	< 5.00e-02	34.70	34.90	34.80	0.77	n/a	3.940	n/a
S957003090	A	Neodymium - ICP-Acid Digest	ug/g	120.0	< 6.36e-01	1.66e+05	1.62e+05	1.64e+05	2.44	n/a	39.40	n/a
S957003090	A	Lead - ICP-Acid Digest	ug/g	96.40	< 1.00e-01	2.22e+02	2.17e+02	221.0	0.92	n/a	39.40	n/a
S957003090	A	Nickel - ICP-Acid Digest	ug/g	94.60	< 2.00e-02	2.97e+02	291.0	295.0	1.36	n/a	39.40	n/a
S957003090	A	Phosphorus - ICP-Acid Digest	ug/g	92.80	< 1.00e-01	4.02e+03	2.03e+03	3.62e3	6.27	n/a	7.980	n/a
S957003090	A	Sulfur - ICP-Acid Digest	ug/g	90.60	< 1.00e-01	4.02e+03	3.87e+03	3.94e+03	3.80	n/a	39.40	n/a
S957003090	A	Antimony - ICP-Acid Digest	ug/g	89.20	< 5.00e-02	< 23.70	<2.35e1	n/a	n/a	n/a	39.40	n/a
S957003090	A	Selenium - ICP-Acid Digest	ug/g	91.80	< 1.00e-01	39.50	<3.92e1	n/a	n/a	n/a	39.40	n/a
S957003090	A	Silicon - ICP-Acid Digest	ug/g	240.0	< 6.35e-01	2.10e+02	226.0	218.0	7.34	n/a	19.70	n/a
S957003090	A	Samarium - ICP-Acid Digest	ug/g	95.60	< 1.00e-01	39.50	<3.92e1	n/a	n/a	n/a	39.40	n/a
S957003090	A	Strontium - ICP-Acid Digest	ug/g	95.20	< 1.00e-02	3.950	<3.92e0	n/a	n/a	n/a	3.940	n/a
S957003090	A	Titanium - ICP-Acid Digest	ug/g	93.80	< 1.00e-02	3.950	<3.92e0	n/a	n/a	n/a	3.940	n/a
S957003090	A	Thallium - ICP-Acid Digest	ug/g	89.00	< 2.00e-01	78.90	<7.84e1	n/a	n/a	n/a	70.00	n/a
S957003090	A	Uranium - ICP-Acid Digest	ug/g	93.40	< 5.00e-01	8.44e+02	810.0	827.0	4.71	n/a	19.70	n/a
S957003090	A	Vanadium - ICP-Acid Digest	ug/g	94.40	< 5.00e-02	19.70	<1.96e1	n/a	n/a	n/a	19.70	n/a
S957003090	A	Zinc - ICP-Acid Digest	ug/g	91.60	< 4.80e-02	59.30	56.30	57.80	5.19	n/a	3.940	n/a
S957003090	A	Zirconium - ICP-Acid Digest	ug/g	94.20	< 1.00e-02	95.90	95.20	95.55	0.73	n/a	3.940	n/a
S957003097	F	Fluoride-IC-Dioxin 4000/4500	ug/g	93.21	< 3.0e-02	4.69e+03	4.65e+03	4.67e+03	0.19	n/a	53.28	n/a
S957003097	F	Chloride-IC-Dioxin 4000/4500	ug/g	95.37	< 2.50e-02	2.90e+03	2.85e+03	2.88e+03	1.74	n/a	49.48	n/a
S957003097	F	Nitrite-IC-Dioxin 4000/4500	ug/g	93.99	< 1.07e-01	5.34e+04	5.41e+04	5.37e+04	1.30	n/a	538.5	n/a
S957003097	F	Bromide by Ion Chromatograph	ug/g	92.36	< 2.5e-01	<5.16e+02	<5.20e2	n/a	n/a	n/a	516.4	n/a
S957003097	F	Nitrate by IC-Dioxin 4000/4500	ug/g	91.92	< 1.33e-01	1.46e+05	1.41e+05	1.43e+05	3.48	n/a	573.5	n/a
S957003097	F	Phosphate-IC-Dioxin 4000/4500	ug/g	93.50	< 1.19e-01	5.17e+03	5.69e+03	5.40e+03	3.21	n/a	487.2	n/a
S957003097	F	Sulfate by IC-Dioxin 4000/4500	ug/g	91.74	< 1.36e-01	1.07e+04	1.09e+04	1.08e+04	1.85	n/a	556.7	n/a
S957003097	F	Oxalate by IC-Dioxin 4000/4500	ug/g	98.48	< 1.05e-01	1.05e+04	1.07e+04	1.06e+04	1.89	n/a	430.3	n/a

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err#
S961003092	F	Cobalt-60 by GEA	uCi/g	103.5	< 6.30e-02	1.17e-01	8.73e-02	1.02e-01	29.1	n/a	n/a	19.4
S961003092	F	Cobalt-137 by GEA	uCi/g	99.95	< 1.57e-01	1.02e-01	1.02e-01	1.07e-01	10.2	n/a	n/a	0.640
S961003092	F	Europium-154 by GEA	uCi/g	n/a	< 1.84e-01	1.06e-01	9.65e-01	9.65e-01	21.4	n/a	n/a	9.05
S961003092	F	Europium-155 by GEA	uCi/g	n/a	< 1.41e-01	8.76e-01	7.57e-01	8.17e-01	14.6	n/a	n/a	39.7
S961003092	F	Europium-241 by GEA	uCi/g	n/a	< 3.56e-01	1.37e-01	< 9.43e-01	n/a	n/a	n/a	1.38e-03	n/a
S961003091	A	Silver - ICP-Acid Digest	ug/g	94.00	< 1.00e-02	5.8e-05	60.70	59.60	3.69	n/a	3.880	n/a
S961003091	A	Aluminum - ICP-Acid Digest	ug/g	99.40	< 1.33e-01	7.66e-03	7.64e-03	7.55e-03	2.38	n/a	19.40	n/a
S961003091	A	Arsenic - ICP-Acid Digest	ug/g	96.80	< 1.00e-01	< 36.90	< 3.95e-01	n/a	n/a	n/a	38.80	n/a
S961003091	A	Boron - ICP-Acid Digest	ug/g	109.4	< 3.91e-01	42.90	48.00	45.45	11.2	n/a	19.40	n/a
S961003091	A	Beryllium - ICP-Acid Digest	ug/g	95.00	< 5.00e-02	< 19.40	< 1.98e-01	n/a	n/a	n/a	19.40	n/a
S961003091	A	Bismuth - ICP-Acid Digest	ug/g	107.2	< 5.00e-03	< 1.940	< 1.98e-01	n/a	n/a	n/a	1.940	n/a
S961003091	A	Calcium - ICP-Acid Digest	ug/g	95.00	< 1.00e-01	< 36.90	< 3.95e-01	n/a	n/a	n/a	38.80	n/a
S961003091	A	Cadmium - ICP-Acid Digest	ug/g	96.40	< 1.39e-01	3.03e-02	360.0	331.5	17.2	n/a	38.80	n/a
S961003091	A	Cadmium - ICP-Acid Digest	ug/g	93.60	< 5.00e-03	3.30e-02	32.0	32.15	3.42	n/a	1.940	n/a
S961003091	A	Cerium - ICP-Acid Digest	ug/g	100.0	< 1.00e-01	5.8e-05	65.20	60.70	8.24	n/a	38.80	n/a
S961003091	A	Cobalt - ICP-Acid Digest	ug/g	96.40	< 2.00e-02	< 7.770	< 7.91e-01	n/a	n/a	n/a	7.780	n/a
S961003091	A	Chromium - ICP-Acid Digest	ug/g	95.20	< 1.00e-02	1.65e-03	1.73e-03	1.69e-03	4.73	n/a	3.880	n/a
S961003091	A	Copper - ICP-Acid Digest	ug/g	97.20	< 2.6e-01	12.30	12.60	12.45	2.41	n/a	3.880	n/a
S961003091	A	Iron - ICP-Acid Digest	ug/g	89.40	< 1.00e-02	4.29e-03	4.20e-03	4.29e-03	4.29	n/a	19.40	n/a
S961003091	A	Lanthanum - ICP-Acid Digest	ug/g	97.80	< 5.00e-01	7.44e-02	749.0	746.5	0.67	n/a	194.0	n/a
S961003091	A	Lithium - ICP-Acid Digest	ug/g	97.80	< 5.00e-02	< 28.50	< 29.40	28.95	3.11	n/a	19.40	n/a
S961003091	A	Magnesium - ICP-Acid Digest	ug/g	97.20	< 1.00e-02	< 3.890	< 3.95e-01	n/a	n/a	n/a	3.880	n/a
S961003091	A	Manganese - ICP-Acid Digest	ug/g	91.00	< 1.00e-01	< 36.90	< 3.95e-01	n/a	n/a	n/a	38.80	n/a
S961003091	A	Molybdenum - ICP-Acid Digest	ug/g	92.80	< 1.00e-02	6.97e-02	731.0	714.0	4.76	n/a	3.880	n/a
S961003091	A	Nickel - ICP-Acid Digest	ug/g	95.40	< 5.00e-02	19.90	21.10	20.50	5.85	n/a	19.40	n/a
S961003091	A	Sodium - ICP-Acid Digest	ug/g	120.0	< 6.36e-01	1.89e-05	1.91e-05	1.90e-05	1.05	n/a	38.80	n/a
S961003091	A	Neodmium - ICP-Acid Digest	ug/g	96.40	< 2.00e-01	76.50	79.20	77.85	3.47	n/a	38.80	n/a
S961003091	A	Nickel - ICP-Acid Digest	ug/g	94.60	< 2.00e-02	1.77e-02	183.0	180.0	3.33	n/a	7.780	n/a
S961003091	A	Phosphorus - ICP-Acid Digest	ug/g	96.60	< 2.00e-01	1.20e-04	1.23e-04	1.22e-04	2.47	n/a	77.80	n/a
S961003091	A	Lead - ICP-Acid Digest	ug/g	90.60	< 1.00e-01	2.76e-02	291.0	283.5	5.29	n/a	38.80	n/a
S961003091	A	Sulfur - ICP-Acid Digest	ug/g	89.20	< 6.00e-01	2.58e-03	2.73e-03	2.66e-03	5.65	n/a	38.80	n/a
S961003091	A	Antimony - ICP-Acid Digest	ug/g	92.80	< 6.00e-02	< 23.40	< 2.37e-01	n/a	n/a	n/a	23.40	n/a
S961003091	A	Selenium - ICP-Acid Digest	ug/g	91.80	< 1.00e-01	< 36.90	< 3.95e-01	n/a	n/a	n/a	38.80	n/a
S961003091	A	Silicon - ICP-Acid Digest	ug/g	240.0	< 6.35e-01	5.61e-02	586.0	573.5	4.36	n/a	19.40	n/a
S961003091	A	Samarium - ICP-Acid Digest	ug/g	95.60	< 1.00e-02	< 3.890	< 3.95e-01	n/a	n/a	n/a	38.80	n/a
S961003091	A	Strontium - ICP-Acid Digest	ug/g	95.20	< 1.00e-02	< 3.890	< 3.95e-01	n/a	n/a	n/a	38.80	n/a
S961003091	A	Tantalum - ICP-Acid Digest	ug/g	93.80	< 2.00e-02	6.660	6.970	6.815	4.55	n/a	3.880	n/a
S961003091	A	Thallium - ICP-Acid Digest	ug/g	89.00	< 2.00e-01	< 77.70	< 7.91e-01	n/a	n/a	n/a	77.80	n/a
S961003091	A	Uranium - ICP-Acid Digest	ug/g	93.40	< 5.00e-01	6.04e-02	637.0	620.5	5.32	n/a	194.0	n/a
S961003091	A	Vanadium - ICP-Acid Digest	ug/g	94.40	< 5.00e-02	< 19.40	< 1.98e-01	n/a	n/a	n/a	19.40	n/a
S961003091	A	Zinc - ICP-Acid Digest	ug/g	91.60	< 4.80e-02	42.90	35.40	39.15	19.2	n/a	3.880	n/a
S961003098	W	Fluoride - ICP-Acid Digest	ug/g	94.20	< 1.00e-02	2.80e-02	269.0	274.5	4.01	n/a	3.880	n/a
S961003098	W	Fluoride - ICP-Acid Digest	ug/g	93.73	< 1.30e-02	6.10e-03	6.12e-03	6.11e-03	0.33	n/a	131.9	n/a
S961003098	W	Fluoride - ICP-Acid Digest	ug/g	93.17	< 2.00e-02	1.66e-03	1.81e-03	1.73e-03	8.65	n/a	172.5	n/a
S961003098	W	Nitrite - ICP-Acid Digest	ug/g	95.39	< 1.07e-01	2.84e-04	2.96e-04	2.90e-04	4.14	n/a	1.09e-03	n/a
S961003098	W	Nitrate - ICP-Acid Digest	ug/g	92.36	< 2.6e-01	< 1.28e-03	< 1.28e-03	n/a	n/a	n/a	1.28e-03	n/a
S961003098	W	Nitrate by Ion Chromatograph	ug/g	91.92	< 1.43e-01	3.29e-05	3.35e-05	3.32e-05	3.67	n/a	1.42e-03	n/a
S961003098	W	Phosphate - ICP-Acid Digest	ug/g	91.74	< 1.9e-01	3.35e-04	3.35e-04	3.35e-04	0.30	n/a	1.21e-03	n/a
S961003098	W	Sulfate by IC-Dioxin	ug/g	93.50	< 1.35e-01	7.25e-03	7.91e-03	7.43e-03	7.32	n/a	1.58e-03	n/a
S961003098	W	Sulfate by IC-Dioxin	ug/g	98.48	< 1.05e-01	7.16e-03	7.81e-03	7.49e-03	8.68	n/a	1.06e-03	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S961030270		Bulk Density of Sample	g/ml	n/a	n/a	1.870	n/a	17.7	5.07	82.60	5.00e-01	n/a	n/a
S961030371		Cyanide Water Distillation	g/ml	96.40	<2.75e-02	17.30	18.20	17.7	5.07	82.60	4.20e-01	n/a	n/a
S961030371		DSC Exotherm using Mettler	Joules/g	108.3	n/a	5.67e+02	470.1	518.4	18.8	n/a	n/a	n/a	n/a
S961030371		DSC Exotherm Dry Calculated	Joules/g	108.3	n/a	1.02e+03	818.1	936.0	18.8	n/a	n/a	n/a	n/a
S961030371		Water by IGA using Mettler	Joules/g	98.92	n/a	46.37	42.87	44.57	7.33	n/a	n/a	n/a	n/a
S961030371		TIC by Acid/Coulometer	ug/g	101.7	1.00e-01	3.35e+03	2.98e+03	3.17e+03	12.0	97.50	5	n/a	n/a
S961030371		TIC by Perseus/Calorimetry	ug/g	100.7	2.00e-02	8.70e+03	9.30e+03	9.04e+03	7.63	98.10	4.00	n/a	n/a
S961030385	F	Silver - ICP-Fusion	ug/g	102.2	<1.00e-02	6.44e+03	6.37e+03	6.42e+03	1.40	97.30	988.0	n/a	n/a
S961030385	F	Aluminum - ICP-Fusion	ug/g	99.40	<1.00e-01	1.98e+03	2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Arsenic - ICP-Fusion	ug/g	104.6	<1.00e-01	1.02e+03	<1.02e+03	n/a	n/a	n/a	988.0	n/a	n/a
S961030385	F	Boron - ICP-Fusion	ug/g	100.5	<5.00e-02	<9.90e+02	<1.02e+03	n/a	n/a	n/a	988.0	n/a	n/a
S961030385	F	Beryllium - ICP-Fusion	ug/g	104.2	<1.00e-01	<9.90e+02	<1.02e+03	n/a	n/a	n/a	988.0	n/a	n/a
S961030385	F	Bismuth - ICP-Fusion	ug/g	104.6	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Calcium - ICP-Fusion	ug/g	104.6	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Cadmium - ICP-Fusion	ug/g	104.6	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Chromium - ICP-Fusion	ug/g	105.4	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Cobalt - ICP-Fusion	ug/g	103.2	<2.00e-02	<3.96e+02	<4.06e+02	n/a	n/a	n/a	396.0	n/a	n/a
S961030385	F	Chromium - ICP-Fusion	ug/g	104.4	<1.00e-02	1.27e+03	1.28e+03	1.28e+03	0.78	101.0	198.0	n/a	n/a
S961030385	F	Copper - ICP-Fusion	ug/g	105.2	<1.00e-02	<1.98e+02	<2.03e+02	n/a	n/a	n/a	198.0	n/a	n/a
S961030385	F	Iron - ICP-Fusion	ug/g	103.4	<5.00e-02	6.47e+03	6.29e+03	6.38e+03	2.82	101.0	9.88e+03	n/a	n/a
S961030385	F	Potassium - ICP-Fusion	ug/g	104.6	<5.00e-01	6.61e+06	n/a	n/a	n/a	n/a	9.88e+03	n/a	n/a
S961030385	F	Lanthanum - ICP-Fusion	ug/g	103.4	<5.00e-02	<1.98e+02	<2.03e+02	n/a	n/a	n/a	198.0	n/a	n/a
S961030385	F	Lithium - ICP-Fusion	ug/g	103.4	<1.00e-02	<1.98e+02	<2.03e+02	n/a	n/a	n/a	198.0	n/a	n/a
S961030385	F	Magnesium - ICP-Fusion	ug/g	99.20	<1.00e-01	<1.98e+02	<2.03e+02	n/a	n/a	n/a	198.0	n/a	n/a
S961030385	F	Manganese - ICP-Fusion	ug/g	101.6	<1.00e-02	8.59e+02	882.0	870.5	2.64	99.70	1.98e+03	n/a	n/a
S961030385	F	Molybdenum - ICP-Fusion	ug/g	103.0	<5.00e-02	<9.90e+02	<1.02e+03	n/a	n/a	n/a	988.0	n/a	n/a
S961030385	F	Sodium - ICP-Fusion	ug/g	103.0	<1.00e-02	2.74e+05	2.71e+05	2.71e+05	2.21	88.20	1.98e+03	n/a	n/a
S961030385	F	Neodymium - ICP-Fusion	ug/g	104.2	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Nickel - ICP-Fusion	ug/g	102.6	<2.00e-02	5.24e+03	4.25e+03	4.74e+03	20.9	98.80	396.0	n/a	n/a
S961030385	F	Phosphorus - ICP-Fusion	ug/g	105.0	<2.00e-01	7.15e+03	7.15e+03	6.95e+03	5.76	102.0	3.96e+03	n/a	n/a
S961030385	F	Lead - ICP-Fusion	ug/g	102.8	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Sulfur - ICP-Fusion	ug/g	100.6	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	1.98e+03	n/a	n/a
S961030385	F	Titanium - ICP-Fusion	ug/g	97.60	<6.00e-02	<1.98e+03	<1.22e+03	n/a	n/a	n/a	95.20	1.98e+03	n/a
S961030385	F	Antimony - ICP-Fusion	ug/g	99.00	<1.00e-01	<1.98e+03	<2.03e+03	n/a	n/a	n/a	95.10	1.98e+03	n/a
S961030385	F	Selenium - ICP-Fusion	ug/g	97.00	<5.00e-02	1.98e+03	1.23e+03	1.21e+03	3.31	96.40	988.0	n/a	n/a
S961030385	F	Silver - ICP-Fusion	ug/g	100.8	<1.00e-01	<1.98e+02	<2.03e+02	n/a	n/a	n/a	99.00	1.98e+03	n/a
S961030385	F	Samarium - ICP-Fusion	ug/g	101.2	<1.00e-02	<1.98e+02	<2.03e+02	n/a	n/a	n/a	99.00	198.0	n/a
S961030385	F	Strontium - ICP-Fusion	ug/g	100.8	<1.00e-01	<1.98e+02	<2.03e+02	n/a	n/a	n/a	99.00	198.0	n/a
S961030385	F	Titanium - ICP-Fusion	ug/g	99.80	<1.00e-02	<3.96e+03	<4.06e+03	n/a	n/a	n/a	3.96e+03	n/a	n/a
S961030385	F	Thallium - ICP-Fusion	ug/g	101.0	<2.00e-01	<3.96e+03	<4.06e+03	n/a	n/a	n/a	90.50	9.88e+03	n/a
S961030385	F	Uranium - ICP-Fusion	ug/g	98.20	<5.00e-01	<9.90e+03	<1.02e+04	n/a	n/a	n/a	99.00	988.0	n/a
S961030385	F	Vanadium - ICP-Fusion	ug/g	102.8	<5.00e-02	<9.90e+02	<1.02e+03	n/a	n/a	n/a	99.00	198.0	n/a
S961030385	F	Zinc - ICP-Fusion	ug/g	104.2	<4.00e-02	4.79e+02	236.4	235.0	24.9	98.20	198.0	n/a	n/a
S961030385	F	Zirconium - ICP-Fusion	ug/g	101.0	<1.00e-02	2.62e+02	262.0	235.0	7.77	n/a	198.0	n/a	n/a
S961030385	F	Cobalt-137 by GEA	ug/g	103.5	<6.30e-02	8.16e-02	8.82e-02	8.49e-02	7.77	n/a	n/a	27.9	n/a
S961030385	F	Cesium-137 by GEA	ug/g	99.95	<1.57e-01	6.75e-01	6.75e-01	6.75e-01	0.30	n/a	n/a	0.820	n/a
S961030385	F	Europium-154 by GEA	ug/g	n/a	<1.84e-01	6.90e-01	6.59e-01	6.75e-01	4.60	n/a	n/a	13.2	n/a
S961030385	F	Europium-155 by GEA	ug/g	n/a	<1.41e-01	6.18e-01	<2.84e-01	n/a	n/a	n/a	n/a	35.7	n/a

WHC-SD-WM-DP-191, REV./

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
3961003095	F	Ammonium-241 by GEA	uCi/g		< 4.52e-03	< 7.88e-01	48.03e-01	n/a	n/a	n/a	7.98e-01	n/a
3961003095	F	Alpha - CP-Acid Solid	uCi/g	107.8	< 5.52e-03	1.91e-01	5.29e-01	5.95e-02	27.42	88.28	7.00e-03	6.33e+00
3961003092	A	Silver - CP-Acid Digest	uCi/g	99.40	< 1.00e-02	1.97e-02	1.02e-02	1.04e-02	4.78	86.60	3.98e-03	n/a
3961003092	A	Aluminum - CP-Acid Digest	uCi/g	99.40	< 1.35e-01	3.67e-03	5.67e-03	6.09e-03	3.94	39.20	19.90	n/a
3961003092	A	Ammonium - CP-Acid Digest	uCi/g	94.80	< 1.00e-01	< 38.90	< 4.00e-01	n/a	n/a	n/a	39.80	n/a
3961003092	A	Boron - CP-Acid Digest	uCi/g	109.2	< 3.91e-01	2.17e-01	27.20	39.60	10.6	96.80	19.90	n/a
3961003092	A	Beryllium - CP-Acid Digest	uCi/g	98.90	< 8.00e-02	< 21.90	< 2.00e-02	24.70	1.62	91.00	19.90	n/a
3961003092	A	Beryllium - CP-Acid Digest	uCi/g	107.2	< 1.00e-02	< 39.70	< 2.00e-02	n/a	n/a	99.40	1.990	n/a
3961003092	A	Bismuth - CP-Acid Digest	uCi/g	82.00	< 1.00e-01	< 39.70	< 4.00e-01	n/a	n/a	94.20	39.80	n/a
3961003092	A	Calcium - CP-Acid Digest	uCi/g	96.40	< 3.94e-01	4.72e-02	46.10	468.5	2.36	91.20	39.80	n/a
3961003092	A	Calcium - CP-Acid Digest	uCi/g	95.80	< 1.00e-03	5.61e-02	50.80	21.20	3.77	93.60	1.990	n/a
3961003092	A	Cerium - CP-Acid Digest	uCi/g	100.10	< 1.00e-01	< 39.80	< 3.00e-01	58.40	4.79	97.40	39.80	n/a
3961003092	A	Cobalt - CP-Acid Digest	uCi/g	96.50	< 2.00e-02	< 7.950	< 8.00e-02	n/a	n/a	96.20	7.940	n/a
3961003092	A	Chromium - CP-Acid Digest	uCi/g	97.20	< 1.00e-02	1.26e-03	1.21e-03	1.24e-03	4.05	86.60	3.980	n/a
3961003092	A	Copper - CP-Acid Digest	uCi/g	94.50	< 1.00e-02	6.350	8.210	8.380	4.06	90.00	3.980	n/a
3961003092	A	Iron - CP-Acid Digest	uCi/g	97.20	< 1.00e-02	6.32e-03	6.19e-03	6.19e-03	4.20	48.00	19.90	n/a
3961003092	A	Lanthanum - CP-Acid Digest	uCi/g	97.80	< 1.00e-01	6.87e-02	307.0	397.0	30.2	86.60	19.90	n/a
3961003092	A	Lanthanum - CP-Acid Digest	uCi/g	97.80	< 1.00e-02	< 26.70	< 25.80	26.25	3.43	94.80	19.90	n/a
3961003092	A	Magnesium - CP-Acid Digest	uCi/g	91.20	< 1.00e-02	5.970	< 4.00e-01	n/a	n/a	95.00	3.980	n/a
3961003092	A	Manganese - CP-Acid Digest	uCi/g	91.00	< 1.00e-02	8.62e-02	88.0	84.40	11.2	87.40	39.80	n/a
3961003092	A	Molybdenum - CP-Acid Digest	uCi/g	96.40	< 1.00e-02	1.97e-03	< 2.00e-03	2.00e-03	3.00	97.60	19.90	n/a
3961003092	A	Sodium - CP-Acid Digest	uCi/g	120.10	< 3.98e-01	1.27e-03	< 2.00e-03	65.10	3.53	92.00	39.80	n/a
3961003092	A	Neodymium - CP-Acid Digest	uCi/g	96.40	< 1.00e-02	1.27e-02	65.00	65.10	3.53	92.00	39.80	n/a
3961003092	A	Nickel - CP-Acid Digest	uCi/g	94.40	< 1.00e-02	1.46e-02	34.0	44.0	5.57	93.40	7.940	n/a
3961003092	A	Phosphorus - CP-Acid Digest	uCi/g	90.40	< 1.00e-01	3.37e-03	6.36e-03	6.42e-03	3.02	111.2	79.40	n/a
3961003092	A	Sulfur - CP-Acid Digest	uCi/g	92.80	< 1.00e-01	3.37e-02	307.0	722.0	3.11	89.20	39.80	n/a
3961003092	A	Sulfur - CP-Acid Digest	uCi/g	99.20	< 1.00e-01	< 23.80	< 2.00e-01	723.5	8.15	89.20	39.80	n/a
3961003092	A	Antimony - CP-Acid Digest	uCi/g	91.80	< 1.00e-01	< 23.80	< 2.00e-01	n/a	n/a	n/a	35.80	n/a
3961003092	A	Barium - CP-Acid Digest	uCi/g	24.00	< 1.00e-01	< 39.80	< 4.00e-01	n/a	n/a	91.80	39.80	n/a
3961003092	A	Bismuth - CP-Acid Digest	uCi/g	94.80	< 3.95e-01	9.26e-03	< 4.00e-01	948.2	4.74	108.4	19.90	n/a
3961003092	A	Strontium - CP-Acid Digest	uCi/g	95.40	< 1.00e-02	< 39.70	< 4.00e-01	n/a	n/a	94.20	39.80	n/a
3961003092	A	Strontium - CP-Acid Digest	uCi/g	95.20	< 1.00e-02	1.180	< 4.00e-01	4.75	1.20	91.60	3.980	n/a
3961003092	A	Tantalum - CP-Acid Digest	uCi/g	89.00	< 1.00e-02	< 39.80	< 4.00e-01	13.60	2.94	92.00	3.980	n/a
3961003092	A	Tantalum - CP-Acid Digest	uCi/g	89.00	< 1.00e-01	< 79.50	< 8.00e-01	13.60	2.94	92.00	3.980	n/a
3961003092	A	Thallium - CP-Acid Digest	uCi/g	93.40	< 1.00e-01	6.80e-02	< 4.00e-01	68.10	5.75	93.60	19.90	n/a
3961003092	A	Uranium - CP-Acid Digest	uCi/g	94.40	< 1.00e-02	< 19.90	< 2.00e-02	47.80	n/a	93.60	19.90	n/a
3961003092	A	Zinc - CP-Acid Digest	uCi/g	91.40	< 8.00e-02	51.20	< 4.00e-01	47.80	n/a	93.60	19.90	n/a
3961003092	A	Zinc - CP-Acid Digest	uCi/g	94.20	< 1.00e-02	3.37e-02	501.0	411.0	13.8	123.9	3.980	n/a
3961003092	W	Chloride - IC-Dioxin 4000/4500	uCi/g	93.70	< 3.00e-02	3.74e-03	3.70e-03	3.73e-03	8.10	96.21	7.940	n/a
3961003092	W	Chloride - IC-Dioxin 4000/4500	uCi/g	93.17	< 2.50e-02	1.26e-03	1.26e-03	1.26e-03	1.60	92.91	228.2	n/a
3961003092	W	Chloride - IC-Dioxin 4000/4500	uCi/g	95.30	< 1.07e-01	1.95e-03	1.79e-03	1.87e-03	8.56	93.20	1.42e+03	n/a
3961003092	W	Chloride - IC-Dioxin 4000/4500	uCi/g	92.32	< 1.26e-01	4.68e-03	4.64e-03	n/a	n/a	91.51	1.68e+03	n/a
3961003092	W	Chloride - IC-Dioxin 4000/4500	uCi/g	91.92	< 1.19e-01	1.87e-03	4.68e-03	1.98e-03	0.21	66.67	1.68e+03	n/a
3961003092	W	Phosphate - IC-Dioxin 4000/4500	uCi/g	91.76	< 1.19e-01	1.87e-03	4.68e-03	1.98e-03	0.21	66.67	1.68e+03	n/a
3961003092	W	Sulfate by IC-Dioxin 4000/4500	uCi/g	93.50	< 1.38e-01	2.08e-03	2.08e-03	2.08e-03	7.35	92.71	1.81e+03	n/a
3961003092	W	Sulfate by IC-Dioxin 4000/4500	uCi/g	96.48	< 1.00e-01	1.08e-04	9.57e-03	1.38e-04	13.9	97.90	1.40e+03	n/a

Table 1. Data Summary Table
U-106 (P)

CORE NUMBER: 147

SEGMENT #: Core Composite

SEGMENT PORTION: Core Composite

Sample#	R#	Analysite	Unit	Standard	Blank	Result	Duplicate	Average	RPD %	Skw Rec %	Det Limit	Count Err%
S961003875		Bulk Density of Sample	g/mL	N/A	N/A	1.610	N/A	N/A	N/A	N/A	3.00e-01	N/A
S961003876		DSC Exotherm DRY, Calculated	Joules/g DRY	N/A	N/A	6.36e+02	520.5	563.0	15.1	N/A	N/A	N/A
S961003876		DSC Exotherm on Perkin Elmer	Joules/g	105.9	N/A	3.06e+02	288.8	312.5	15.1	N/A	N/A	N/A
S961003876		% Water by TGA on Perkin Elmer	%	92.48	N/A	45.58	43.05	44.32	47.8	N/A	N/A	N/A
S961003876		TIC by Acid/Coulometry	ug/g	92.48	3.300	4.34e+03	4.96e+03	4.65e+03	13.2	N/A	5.000	N/A
S961003876		TIC by Persulfate/Coulometry	ug/g	92.36	4.900	1.79e+04	2.11e+04	1.95e+04	18.4	N/A	40.00	N/A
S961003878		F Uranium by Phosphorescence	ug/g	92.36	19.80	8.90e+02	88.0	88.0	0.68	92.44	1.790	3.20E+00
S961003878		F U-Phosphorus Inst. Error	% Inst Error	3.15	1.4201	3.200	1.410	2.305	1.66	N/A	N/A	N/A
S961003878		F Strontium-89/90 High Level	uCi/g	96.72	1.19e-01	91.10	87.70	89.40	3.80	N/A	2.35e-01	1.55E+00
S961003878		F Silver - ICP-Fusion	ug/g	97.60	<1.00e-02	<1.96e-02	<1.96e-02	N/A	N/A	90.40	198.0	N/A
S961003878		F Aluminum - ICP-Fusion	ug/g	97.40	<5.00e-02	1.15e+04	1.09e+04	1.12e+04	5.36	13.0	992.0	N/A
S961003878		F Arsenic - ICP-Fusion	ug/g	103.2	<1.00e-01	<1.96e+03	<1.96e+03	N/A	N/A	95.60	1.98e+03	N/A
S961003878		F Boron - ICP-Fusion	ug/g	100.0	<5.00e-02	<9.91e+02	<9.80e+02	N/A	N/A	98.10	992.0	N/A
S961003878		F Barium - ICP-Fusion	ug/g	98.00	<5.00e-02	<9.91e+02	<9.80e+02	N/A	N/A	99.70	992.0	N/A
S961003878		F Beryllium - ICP-Fusion	ug/g	102.4	<1.00e-01	<9.91e+02	<9.80e+02	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Bismuth - ICP-Fusion	ug/g	101.0	<1.00e-01	<1.98e+03	<1.96e+03	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Calcium - ICP-Fusion	ug/g	96.80	<1.00e-02	<1.98e+03	<1.96e+03	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Cadmium - ICP-Fusion	ug/g	98.20	<5.00e-03	<9.91e+02	<9.80e+02	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Cerium - ICP-Fusion	ug/g	98.20	<1.00e-02	<3.97e+02	<3.92e+02	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Cobalt - ICP-Fusion	ug/g	98.80	<1.00e-02	<3.97e+02	<3.92e+02	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Chromium - ICP-Fusion	ug/g	98.80	<1.00e-02	<3.97e+02	<3.92e+02	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Copper - ICP-Fusion	ug/g	98.60	<1.00e-02	<3.97e+02	<3.92e+02	N/A	N/A	103.0	1.98e+03	N/A
S961003878		F Iron - ICP-Fusion	ug/g	98.60	<5.00e-02	3.17e+03	3.18e+03	3.28e+03	5.80	99.10	992.0	N/A
S961003878		F Potassium - ICP-Fusion	ug/g	96.80	<5.00e-01	5.16e+06	N/A	N/A	N/A	98.90	9.92e+03	N/A
S961003878		F Lanthanum - ICP-Fusion	ug/g	99.40	<5.00e-02	<9.91e+02	<9.80e+02	N/A	N/A	98.90	992.0	N/A
S961003878		F Lithium - ICP-Fusion	ug/g	103.0	<1.00e-01	<1.98e+02	<1.96e+02	N/A	N/A	97.50	198.0	N/A
S961003878		F Magnesium - ICP-Fusion	ug/g	96.20	<1.00e-01	<1.98e+03	<1.96e+03	N/A	N/A	98.20	1.98e+03	N/A
S961003878		F Manganese - ICP-Fusion	ug/g	96.40	<1.00e-02	1.49e+03	1.43e+03	1.46e+03	4.11	90.80	992.0	N/A
S961003878		F Molybdenum - ICP-Fusion	ug/g	99.00	<5.00e-02	<9.91e+02	<9.80e+02	N/A	N/A	100.0	992.0	N/A
S961003878		F Sodium - ICP-Fusion	ug/g	97.80	1.480	2.02e+05	2.07e+05	2.04e+05	2.44	84.50	1.98e+03	N/A
S961003878		F Neodymium - ICP-Fusion	ug/g	100.0	<1.00e-01	<1.96e+03	<1.96e+03	N/A	N/A	98.90	992.0	N/A
S961003878		F Nickel - ICP-Fusion	ug/g	98.40	1.84e-01	1.13e+03	1.14e+03	1.16e+03	4.33	101.0	1.98e+03	N/A
S961003878		F Phosphorus - ICP-Fusion	ug/g	100.8	<2.00e-01	4.27e+03	4.44e+03	4.36e+03	3.90	99.80	3.68e+03	N/A
S961003878		F Lead - ICP-Fusion	ug/g	97.00	<1.00e-01	<1.98e+03	<1.96e+03	N/A	N/A	99.80	1.98e+03	N/A
S961003878		F Sulfur - ICP-Fusion	ug/g	97.60	<1.00e-01	<1.98e+03	<1.96e+03	N/A	N/A	98.20	1.98e+03	N/A
S961003878		F Antimony - ICP-Fusion	ug/g	94.60	<6.00e-02	<1.18e+03	<1.18e+03	N/A	N/A	98.20	1.98e+03	N/A
S961003878		F Selenium - ICP-Fusion	ug/g	96.40	<1.00e-01	<1.98e+03	<1.96e+03	N/A	N/A	98.20	1.98e+03	N/A
S961003878		F Silicon - ICP-Fusion	ug/g	93.60	<1.00e-02	<9.91e+02	<9.80e+02	N/A	N/A	98.20	1.98e+03	N/A
S961003878		F Samarium - ICP-Fusion	ug/g	96.40	<1.00e-01	<1.98e+03	<1.96e+03	N/A	N/A	98.20	1.98e+03	N/A
S961003878		F Strontium - ICP-Fusion	ug/g	96.80	<1.00e-02	<1.98e+02	<1.96e+02	N/A	N/A	96.10	992.0	N/A
S961003878		F Titanium - ICP-Fusion	ug/g	96.20	<1.00e-02	<1.98e+02	<1.96e+02	N/A	N/A	96.10	992.0	N/A
S961003878		F Thallium - ICP-Fusion	ug/g	94.80	<2.00e-01	<3.97e+03	<3.92e+03	N/A	N/A	97.80	3.68e+03	N/A
S961003878		F Uranium - ICP-Fusion	ug/g	94.60	<5.00e-01	<9.91e+03	<9.80e+03	N/A	N/A	93.00	9.92e+03	N/A

Sample#	84#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Pet Limit	Count Err%
S9610033878	F	Vanadium - ICP-Eusion	ug/g	98.60	< 5.0e-02	< 9.7e+02	< 9.80e2	n/a	n/a	99.00	992.0	n/a
S9610033878	F	Zinc - ICP-Eusion	ug/g	98.80	< 1.0e-02	< 1.98e+02	< 1.98e2	n/a	n/a	101.0	198.0	n/a
S9610033878	F	Iron - ICP-Eusion	ug/g	98.80	< 1.0e-02	< 1.98e+02	< 1.98e2	n/a	n/a	96.60	198.0	n/a
S9610033878	F	Cadmium - ICP-Eusion	ug/g	103.5	< 3.0e-02	< 1.48e+01	1.37e-01	1.47e-01	6.10	n/a	n/a	29.4
S9610033878	F	Cesium - 137 - GEA	uCi/g	103.5	< 1.2e-01	< 1.79e+02	1.66e-01	1.70e+02	5.28	n/a	n/a	0.720
S9610033878	F	Europium - 154 - GEA	uCi/g	103.5	< 1.2e-01	< 1.79e+02	1.66e-01	1.70e+02	5.28	n/a	n/a	12.6
S9610033878	F	Europium - 155 - GEA	uCi/g	103.5	< 1.2e-01	< 1.79e+02	1.66e-01	1.70e+02	5.28	n/a	n/a	12.6
S9610033878	F	Europium - 241 - GEA	uCi/g	103.5	< 1.2e-01	< 1.79e+02	1.66e-01	1.70e+02	5.28	n/a	n/a	12.6
S9610033878	F	Alpha of Digest Sample	uCi/g	103.5	< 1.2e-01	< 1.79e+02	1.66e-01	1.70e+02	5.28	n/a	n/a	12.6
S9610033878	F	Alpha of Solid Sample	uCi/g	103.5	< 1.2e-01	< 1.79e+02	1.66e-01	1.70e+02	5.28	n/a	n/a	12.6
S9610033878	F	Fluoride - ICP-Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033878	F	Chloride - ICP-Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033878	F	Nitrite - ICP - Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033878	F	Nitrate - ICP - Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033878	F	Phosphate - ICP-Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033878	F	Sulfate - ICP-Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033878	F	Oxalate - ICP-Dioxex 4000/4500	ug/g	99.30	< 1.0e-02	< 3.80e+03	3.47e+03	3.63e+03	9.08	112.3	3.80e+02	9.81e+00
S9610033880	I	Silver - ICP-H20 Dig/Acid	ug/g	98.80	< 1.0e-02	< 1.80e+03	1.73e+03	1.78e+03	9.61	97.50	3.880	n/a
S9610033880	I	Aluminum - ICP-H20 Dig/Acid	ug/g	104.2	< 1.0e-01	< 8.13e+03	7.43e+03	7.75e+03	9.61	97.50	3.880	n/a
S9610033880	I	Arsenic - ICP-H20 Dig/Acid	ug/g	98.40	< 1.0e-02	< 3.87e+02	< 3.87e+02	559.2	31.26	97.50	38.80	n/a
S9610033880	I	Boron - ICP-H20 Dig/Acid	ug/g	98.40	< 1.0e-02	< 1.94e+02	< 2.04e+02	17.80	17.80	97.50	19.40	n/a
S9610033880	I	Barium - ICP-H20 Dig/Acid	ug/g	100.1	< 5.0e-02	< 1.94e+02	< 2.04e+02	17.80	17.80	97.50	19.40	n/a
S9610033880	I	Beryllium - ICP-H20 Dig/Acid	ug/g	102.6	< 5.0e-03	< 1.94e+02	< 2.04e+02	17.80	17.80	97.50	19.40	n/a
S9610033880	I	Bismuth - ICP-H20 Dig/Acid	ug/g	100.4	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Calcium - ICP-H20 Dig/Acid	ug/g	100.2	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Cadmium - ICP-H20 Dig/Acid	ug/g	101.0	< 5.0e-03	< 4.80e+02	< 5.40e+02	47.60	9.24	97.50	38.80	n/a
S9610033880	I	Cerium - ICP-H20 Dig/Acid	ug/g	101.0	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Cobalt - ICP-H20 Dig/Acid	ug/g	101.6	< 2.0e-02	< 7.75e+02	< 8.13e+02	221.0	232.5	97.50	38.80	n/a
S9610033880	I	Chromium - ICP-H20 Dig/Acid	ug/g	101.4	< 2.0e-02	< 2.44e+02	< 2.65e+02	154.0	154.0	97.50	38.80	n/a
S9610033880	I	Copper - ICP-H20 Dig/Acid	ug/g	96.80	< 1.0e-02	< 1.59e+02	< 1.69e+02	134.0	134.0	97.50	38.80	n/a
S9610033880	I	Iron - ICP-H20 Dig/Acid	ug/g	100.8	< 5.0e-02	< 1.59e+02	< 1.69e+02	134.0	134.0	97.50	38.80	n/a
S9610033880	I	Potassium - ICP-H20 Dig/Acid	ug/g	98.60	< 5.0e-02	< 1.33e+03	< 1.40e+03	1.30e+03	1.30e+03	97.50	38.80	n/a
S9610033880	I	Lanthanum - ICP-H20 Dig/Acid	ug/g	101.8	< 5.0e-02	< 1.94e+02	< 2.04e+02	17.80	17.80	97.50	38.80	n/a
S9610033880	I	Lithium - ICP-H20 Dig/Acid	ug/g	101.2	< 1.0e-02	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Magnesium - ICP-H20 Dig/Acid	ug/g	97.00	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Manganese - ICP-H20 Dig/Acid	ug/g	98.60	< 1.0e-02	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Molybdenum - ICP-H20 Dig/Acid	ug/g	101.0	< 5.0e-02	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Sodium - ICP-H20 Dig/Acid	ug/g	98.20	< 2.880	< 1.78e+05	< 1.78e+05	1.78e+05	0.00	< 1.20e+03	38.80	n/a
S9610033880	I	Neodymium - ICP-H20 Dig/Acid	ug/g	102.0	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Nickel - ICP-H20 Dig/Acid	ug/g	100.8	< 2.0e-02	< 2.82e+02	< 2.91e+02	265.5	11.61	97.50	38.80	n/a
S9610033880	I	Phosphorus - ICP-H20 Dig/Acid	ug/g	101.2	< 2.0e-01	< 4.40e+03	< 4.60e+03	4.28e+03	5.61	97.50	38.80	n/a
S9610033880	I	Sulfur - ICP-H20 Dig/Acid	ug/g	100.0	< 1.0e-01	< 1.67e+02	< 1.77e+02	172.0	5.81	97.50	38.80	n/a
S9610033880	I	Lead - ICP-H20 Dig/Acid	ug/g	99.20	< 1.0e-01	< 3.60e+03	< 3.70e+03	3.42e+03	10.8	97.50	38.80	n/a
S9610033880	I	Antimony - ICP-H20 Dig/Acid	ug/g	95.40	< 6.0e-02	< 2.30e+02	< 2.40e+02	210.0	185.5	97.50	38.80	n/a
S9610033880	I	Selenium - ICP-H20 Dig/Acid	ug/g	97.20	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Silicon - ICP-H20 Dig/Acid	ug/g	95.60	< 6.0e-01	< 1.61e+02	< 1.71e+02	210.0	185.5	97.50	38.80	n/a
S9610033880	I	Samarium - ICP-H20 Dig/Acid	ug/g	98.40	< 1.0e-01	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Strontium - ICP-H20 Dig/Acid	ug/g	96.80	< 1.0e-02	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a
S9610033880	I	Titanium - ICP-H20 Dig/Acid	ug/g	98.00	< 1.0e-02	< 3.87e+02	< 4.08e+02	304.0	318.0	97.50	38.80	n/a

WHC-SD-WM-DP-191, REV. I

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Exp%
S961003880	1	Thallium	-ICP-H2O Dig/Acid	ug/g	97.80	<2.00e-01	77.30	83.16e1	n/a	n/a	86.60	77.60	n/a
S961003880	1	Uranium	-ICP-H2O Dig/Acid	ug/g	96.10	<5.00e-02	94.0e02	<1.94e+02	n/a	n/a	95.00	94.00	n/a
S961003880	1	Vanadium	-ICP-H2O Dig/Acid	ug/g	100.8	<5.00e-02	8.740	8.90e1	n/a	n/a	96.60	97.40	n/a
S961003880	1	Zinc	-ICP-H2O Dig/Acid	ug/g	101.2	<5.00e-02	8.740	8.90e1	8.26	1.8	98.00	3.880	n/a
S961003880	1	Zirconium	-ICP-H2O Dig/Acid	ug/g	99.40	<1.00e-02	9.930	6.70e1	6.670	7.80	93.30	3.880	n/a
S961003888	1	Silver	-ICP-Acid Digest	ug/g	85.30	<1.00e-02	9.730	33.00	25.05	63.5	73.30	4.900	n/a
S961003888	1	Aluminum	-ICP-Acid Digest	ug/g	89.60	<1.00e-02	1.79e01	1.72e01	1.16e+01	6.06	1.10e+1	24.40	n/a
S961003888	1	Arsenic	-ICP-Acid Digest	ug/g	91.90	<1.00e-01	4.78e01	4.55e01	49.05	30.8	95.20	24.40	n/a
S961003888	1	Boron	-ICP-Acid Digest	ug/g	98.60	<3.32e-01	4.78e01	5.20e01	59.05	30.8	95.20	24.40	n/a
S961003888	1	Barium	-ICP-Acid Digest	ug/g	88.20	<1.00e-02	2.430	<2.29e01	n/a	n/a	90.80	2.440	n/a
S961003888	1	Beryllium	-ICP-Acid Digest	ug/g	92.20	<1.00e-02	2.430	<2.29e01	n/a	n/a	90.80	2.440	n/a
S961003888	1	Bismuth	-ICP-Acid Digest	ug/g	86.90	<1.00e-01	4.830	<4.58e01	n/a	n/a	91.20	49.00	n/a
S961003888	1	Calcium	-ICP-Acid Digest	ug/g	114.2	<6.81e-01	3.49e01	4.23e01	391.5	5.65	88.40	2.440	n/a
S961003888	1	Cadmium	-ICP-Acid Digest	ug/g	81.20	<1.00e-03	4.930	52.80	51.35	5.65	88.40	2.440	n/a
S961003888	1	Cerium	-ICP-Acid Digest	ug/g	90.20	<1.00e-02	57.20	79.90	68.55	33.1	94.00	49.00	n/a
S961003888	1	Cobalt	-ICP-Acid Digest	ug/g	84.20	<1.00e-02	9.780	<9.16e01	n/a	n/a	91.00	9.780	n/a
S961003888	1	Chromium	-ICP-Acid Digest	ug/g	84.20	<1.00e-02	2.52e+03	2.91e+03	2.72e+03	14.4	120.4	4.900	n/a
S961003888	1	Copper	-ICP-Acid Digest	ug/g	88.60	<1.00e-02	18.00	19.80	18.90	9.52	97.00	4.900	n/a
S961003888	1	Iron	-ICP-Acid Digest	ug/g	88.60	<5.00e-02	2.51e+03	3.80e+03	3.16e+03	40.9	210.0	24.40	n/a
S961003888	1	Potassium	-ICP-Acid Digest	ug/g	98.00	<5.00e-01	1.31e+03	1.43e+03	1.37e+03	8.76	101.6	24.40	n/a
S961003888	1	Lanthanum	-ICP-Acid Digest	ug/g	90.40	<5.00e-02	34.30	41.60	37.95	19.2	92.40	24.40	n/a
S961003888	1	Lithium	-ICP-Acid Digest	ug/g	92.60	<1.00e-02	4.890	<4.58e01	n/a	n/a	94.60	4.900	n/a
S961003888	1	Magnesium	-ICP-Acid Digest	ug/g	84.80	<1.00e-01	48.90	<4.58e01	n/a	n/a	86.00	49.00	n/a
S961003888	1	Manganese	-ICP-Acid Digest	ug/g	86.00	<1.00e-02	8.62e+02	1.54e+03	1.20e+03	56.5	160.6	4.900	n/a
S961003888	1	Molybdenum	-ICP-Acid Digest	ug/g	88.20	<5.00e-02	32.50	33.40	32.95	2.73	89.40	24.40	n/a
S961003888	1	Sodium	-ICP-Acid Digest	ug/g	110.6	1.06e1	1.77e+05	1.76e+05	1.76e+05	1.71	107.2	49.00	n/a
S961003888	1	Selenium	-ICP-Acid Digest	ug/g	89.60	<1.00e-01	97.80	117.0	107.4	17.9	92.20	49.00	n/a
S961003888	1	Strontium	-ICP-Acid Digest	ug/g	89.40	<2.00e-02	2.68e+02	286.0	277.0	6.50	91.40	9.780	n/a
S961003888	1	Tantalum	-ICP-Acid Digest	ug/g	94.20	<2.00e-01	2.54e+03	4.27e+03	3.40e+03	50.8	300.0	97.80	n/a
S961003888	1	Phosphorus	-ICP-Acid Digest	ug/g	85.20	<1.00e-01	2.87e+02	357.0	322.0	21.7	93.40	49.00	n/a
S961003888	1	Sulfur	-ICP-Acid Digest	ug/g	90.40	<1.00e-01	3.11e+03	3.48e+03	3.30e+03	11.2	122.8	49.00	n/a
S961003888	1	Tin	-ICP-Acid Digest	ug/g	86.80	<6.00e-02	29.40	<2.75e01	n/a	n/a	89.00	29.20	n/a
S961003888	1	Tungsten	-ICP-Acid Digest	ug/g	83.00	<1.00e-01	48.90	<4.58e01	n/a	n/a	84.20	49.00	n/a
S961003888	1	Silicon	-ICP-Acid Digest	ug/g	108.8	1.59e-01	1.13e+02	197.0	155.0	54.2	104.8	24.40	n/a
S961003888	1	Strontium	-ICP-Acid Digest	ug/g	87.60	<1.00e-01	48.90	<4.58e01	n/a	n/a	91.80	49.00	n/a
S961003888	1	Sr	-ICP-Acid Digest	ug/g	88.00	<1.00e-02	4.890	<4.58e01	n/a	n/a	89.00	4.900	n/a
S961003888	1	Titanium	-ICP-Acid Digest	ug/g	82.00	<1.00e-02	4.890	<4.58e01	n/a	n/a	82.60	97.80	n/a
S961003888	1	Titanium	-ICP-Acid Digest	ug/g	83.40	<2.00e-01	97.80	<9.16e01	n/a	n/a	85.20	97.80	n/a
S961003888	1	Thallium	-ICP-Acid Digest	ug/g	86.50	<5.00e-01	6.25e+02	762.0	693.5	19.8	93.40	24.40	n/a
S961003888	1	Uranium	-ICP-Acid Digest	ug/g	87.80	<5.00e-02	24.50	<2.29e01	n/a	n/a	88.80	24.40	n/a
S961003888	1	Vanadium	-ICP-Acid Digest	ug/g	100.6	1.30e-02	34.70	41.00	37.85	16.6	92.40	4.900	n/a
S961003888	1	Zinc	-ICP-Acid Digest	ug/g	90.00	<1.00e-02	79.90	93.60	86.75	15.8	98.00	4.900	n/a
S961003888	1	Zirconium	-ICP-Acid Digest	ug/g	90.00	<1.00e-02	79.90	93.60	86.75	15.8	98.00	4.900	n/a

Sample#	P	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S961002860	D	Zirconium-CP-Acid Dil.	ug/mL	98.89	<1.00e-02	<10.00	<1.00e1	n/a	n/a	100.0	10.00	n/a
S961002860		Fluoride-IC-Dionex 4000/4500	ug/mL	97.12	<1.30e-02	<53.83	<5.38e1	n/a	n/a	384.7	53.83	n/a
S961002860		Chloride-IC-Dionex 4000/4500	ug/mL	97.75	<1.70e-02	5.26e+03	5.02e+03	5.14e+03	4.67	96.84	70.40	n/a
S961002860		Nitrite-IC-Dionex 4000/4500	ug/mL	96.51	<1.07e-01	9.74e+04	9.47e+04	9.61e+04	2.81	93.57	443.1	n/a
S961002860		Bromide By Ion Chromatography	ug/mL	98.30	<1.26e-01	6.10e+02	<5.22e2	n/a	n/a	94.23	521.8	n/a
S961002860		Nitrate By IC-Dionex 4000/4500	ug/mL	98.82	<1.26e-01	2.36e+05	2.30e+05	2.33e+05	2.58	76.26	579.7	n/a
S961002860		Phosphate-IC-Dionex 4000/4500	ug/mL	99.27	<1.19e-01	5.13e+03	3.34e+03	4.24e+03	4.23	89.54	492.4	n/a
S961002860		Sulfate By IC-Dionex 4000/4500	ug/mL	98.26	<1.34e-01	7.45e+03	7.07e+03	7.26e+03	7.88	98.57	562.8	n/a
S961002860		Oxalate By IC-Dionex 4000/4500	ug/mL	101.7	<1.05e-01	1.21e+03	667.0	937.5	57.9	98.68	434.8	n/a
S961002860		Alpha In Liquid Samples	uc/mL	102.3	<6.23e-03	2.87e-01	2.73e-01	2.80e-01	5.00	96.10	1.30e-02	1.39e+01

Table 1. Data Summary Table
U-106 (P)CORE NUMBER: 148
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sampled	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD, %	Spk Rec	Det Limit	Count Err%
S96T003010		Cyanide Water Distillation	ug/g	104.3	<2.75e-02	30.10	30.10	30.10	0.00	N/A	4.960	N/A
S96T003010		DSC Exotherm using Mettler	Joules/g	106.9	N/A	7.45e+02	441.0	259.4	2.00	N/A	N/A	N/A
S96T003010		DSC Exotherm DRY Calculated	Joules/g DRY	N/A	N/A	4.85e+02	867.0	763.4	2.00	N/A	N/A	N/A
S96T003010		% Water by TGA using Mettler	%	98.41	2.00	43.86	40.33	42.06	8.20	N/A	N/A	N/A
S96T003010		TIC by Acid/Coulometry	ug/g	101.0	2.900	1.44e-04	1.54e-04	1.49e-04	6.71	N/A	5.000	N/A
S96T003010		TOC by Persulfate/Coulometry	ug/g	92.47	10.50	2.34e-04	2.29e-04	2.32e-04	3.01	N/A	40.00	N/A
S96T003026		F Silicon - ICP-Fusion	ug/g	97.20	<1.00e-02	<2.03e-02	3.05e-02	N/A	84.30	N/A	203.0	N/A
S96T003026		F Aluminum - ICP-Fusion	ug/g	99.80	8.40e-02	3.18e-04	3.05e-04	3.12e-04	3.32	N/A	1.01e+03	N/A
S96T003026		F Arsenic - ICP-Fusion	ug/g	104.0	<1.00e-01	<2.03e-02	<2.00e-02	N/A	102.0	N/A	2.03e+03	N/A
S96T003026		F Boron - ICP-Fusion	ug/g	98.40	<5.00e-02	<1.01e-03	<1.00e-03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Barium - ICP-Fusion	ug/g	98.40	<5.00e-02	<1.01e-03	<1.00e-03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Beryllium - ICP-Fusion	ug/g	101.0	<5.00e-02	<1.01e-03	<1.00e-03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Bismuth - ICP-Fusion	ug/g	100.8	<1.00e-01	<2.03e-02	<2.00e-02	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Calcium - ICP-Fusion	ug/g	97.40	<1.00e-01	<2.03e-02	<2.00e-02	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Cadmium - ICP-Fusion	ug/g	100.0	<5.00e-02	<1.01e-03	<1.00e-03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Cerium - ICP-Fusion	ug/g	100.0	<5.00e-02	<1.01e-03	<1.00e-03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Cobalt - ICP-Fusion	ug/g	102.2	<2.00e-02	<4.05e-02	<4.00e-02	N/A	N/A	N/A	405.0	N/A
S96T003026		F Chromium - ICP-Fusion	ug/g	99.00	<1.00e-02	3.31e+03	3.12e+03	3.22e+03	5.91	N/A	203.0	N/A
S96T003026		F Copper - ICP-Fusion	ug/g	99.20	<1.00e-02	2.03e+02	1.95e+02	1.80e+02	16.7	N/A	203.0	N/A
S96T003026		F Iron - ICP-Fusion	ug/g	99.20	<5.00e-02	1.95e+03	1.65e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Potassium - ICP-Fusion	ug/g	101.6	<5.00e-01	8.26e+06	<1.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Lanthanum - ICP-Fusion	ug/g	101.2	<5.00e-02	<1.01e+03	<1.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Lithium - ICP-Fusion	ug/g	101.0	<1.00e-02	<2.03e+02	<2.00e+02	N/A	N/A	N/A	203.0	N/A
S96T003026		F Magnesium - ICP-Fusion	ug/g	96.00	<1.00e-01	<2.03e+03	<2.00e+03	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Manganese - ICP-Fusion	ug/g	98.00	<1.00e-02	1.76e+03	1.71e+03	1.72e+03	1.74	N/A	203.0	N/A
S96T003026		F Molybdenum - ICP-Fusion	ug/g	101.2	<5.00e-02	<1.01e+03	<1.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Sodium - ICP-Fusion	ug/g	98.40	1.910	1.25e+05	1.40e+05	1.62e+05	3.08	N/A	2.03e+03	N/A
S96T003026		F Neodymium - ICP-Fusion	ug/g	101.6	<1.00e-01	<2.03e+03	<2.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Nickel - ICP-Fusion	ug/g	102.4	<2.00e-02	9.03e+03	5.42e+03	7.22e+03	50.0	N/A	2.03e+03	N/A
S96T003026		F Phosphorus - ICP-Fusion	ug/g	96.40	<2.00e-01	<4.05e+03	<4.00e+03	N/A	N/A	N/A	405.0	N/A
S96T003026		F Lead - ICP-Fusion	ug/g	97.80	<1.00e-01	<2.03e+03	<2.00e+03	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Sulfur - ICP-Fusion	ug/g	100.2	<1.00e-02	2.59e+03	2.41e+03	2.50e+03	7.20	N/A	4.05e+03	N/A
S96T003026		F Antimony - ICP-Fusion	ug/g	95.0	<5.00e-02	<1.22e+03	<1.20e+03	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Selenium - ICP-Fusion	ug/g	97.20	<1.00e-01	<2.03e+03	<2.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Silicon - ICP-Fusion	ug/g	95.40	<5.00e-02	<1.01e+03	<1.00e+03	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Strontium - ICP-Fusion	ug/g	100.4	<1.00e-01	<2.03e+03	<2.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Scandium - ICP-Fusion	ug/g	98.20	<1.00e-02	<2.03e+03	<2.00e+03	N/A	N/A	N/A	2.03e+03	N/A
S96T003026		F Titanium - ICP-Fusion	ug/g	97.00	<1.00e-02	<2.03e+03	<2.00e+03	N/A	N/A	N/A	203.0	N/A
S96T003026		F Thallium - ICP-Fusion	ug/g	95.60	<1.00e-01	<4.05e+03	<4.00e+03	N/A	N/A	N/A	4.05e+03	N/A
S96T003026		F Uranium - ICP-Fusion	ug/g	100.0	<5.00e-02	<1.01e+03	<1.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Vanadium - ICP-Fusion	ug/g	100.0	<5.00e-02	<1.01e+03	<1.00e+03	N/A	N/A	N/A	1.01e+03	N/A
S96T003026		F Zinc - ICP-Fusion	ug/g	99.60	<1.00e-02	3.44e+02	<2.00e+02	N/A	N/A	N/A	203.0	N/A
S96T003026		F Zirconium - ICP-Fusion	ug/g	99.20	<1.00e-02	<2.03e+02	<2.00e+02	N/A	N/A	N/A	203.0	N/A

Sample#	Anal. Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Error
S961003026	F Cobalt-60 by GEA	uCi/g	105.5	<7.40e-02	1.63e-01	<1.16e-1	n/a	n/a	n/a	n/a	34.3
S961003026	F Cesium-137 by GEA	uCi/g	101.3	<1.05e-01	1.98e-02	1.98e-02	185.4	13.5	n/a	n/a	0.1370
S961003026	F Europium-154 by GEA	uCi/g	n/a	<2.29e-01	1.365	1.400	1.382	2.90	n/a	n/a	15.7
S961003026	F Europium-155 by GEA	uCi/g	n/a	<1.78e-01	9.54e-01	7.08e-01	8.31e-01	29.6	n/a	n/a	44.3
S961003026	F Americium-241 by GEA	uCi/g	n/a	<3.53e-01	1.186	<1.16e0	1.375	5.09	n/a	n/a	1.186
S961003027	A Silver -ICP-Acid Digest	ug/g	79.50	<1.00e-02	14.10	13.40	13.75	51.09	96.80	1.186	n/a
S961003027	A Aluminum -ICP-Acid Digest	ug/g	105.4	8.10e-02	3.20e-04	3.18e-04	3.19e-04	0.63	-1.38e02	23.00	n/a
S961003027	A Arsenic -ICP-Acid Digest	ug/g	99.60	<1.00e-01	<46.00	<46.00	n/a	100.10	99.60	23.00	n/a
S961003027	A Boron -ICP-Acid Digest	ug/g	119.0	3.82e-01	87.50	119.0	103.2	30.5	100.6	23.00	n/a
S961003027	A Barium -ICP-Acid Digest	ug/g	97.40	<5.00e-02	<23.00	<2.32e1	n/a	97.40	99.40	23.00	n/a
S961003027	A Beryllium -ICP-Acid Digest	ug/g	101.4	<5.00e-03	<4.00	<4.65e1	n/a	99.60	99.60	23.00	n/a
S961003027	A Bismuth -ICP-Acid Digest	ug/g	95.40	<5.00e-03	<2.300	<2.32e1	n/a	99.60	99.60	23.00	n/a
S961003027	A Calcium -ICP-Acid Digest	ug/g	115.2	2.03e-01	2.89e-02	274.0	281.5	5.33	93.80	46.00	n/a
S961003027	A Cadmium -ICP-Acid Digest	ug/g	95.80	<5.00e-03	54.40	50.60	52.50	7.22	93.80	46.00	n/a
S961003027	A Cerium -ICP-Acid Digest	ug/g	98.60	<1.00e-01	61.40	64.70	63.05	5.23	98.20	46.00	n/a
S961003027	A Cobalt -ICP-Acid Digest	ug/g	98.60	<1.00e-01	<9.200	<9.29e0	3.49e+03	4.98	92.40	9.200	n/a
S961003027	A Chromium -ICP-Acid Digest	ug/g	96.60	<1.00e-02	3.32e+03	3.49e+03	3.40e+03	4.98	92.40	9.200	n/a
S961003027	A Copper -ICP-Acid Digest	ug/g	97.40	<5.00e-02	19.60	17.80	18.70	9.63	99.60	4.600	n/a
S961003027	A Iron -ICP-Acid Digest	ug/g	99.80	<5.00e-01	2.08e+03	2.07e+03	2.08e+03	0.48	88.40	23.00	n/a
S961003027	A Potassium -ICP-Acid Digest	ug/g	99.20	<5.00e-01	1.4e+03	1.1e+03	1.24e+03	16.1	86.40	23.00	n/a
S961003027	A Lanthanum -ICP-Acid Digest	ug/g	100.2	<5.00e-02	34.70	34.60	34.65	0.29	99.00	23.00	n/a
S961003027	A Lithium -ICP-Acid Digest	ug/g	99.80	<1.00e-02	<46.00	<4.65e1	n/a	n/a	102.2	4.600	n/a
S961003027	A Magnesium -ICP-Acid Digest	ug/g	99.80	<1.00e-02	<46.00	<4.65e1	n/a	n/a	96.00	4.600	n/a
S961003027	A Manganese -ICP-Acid Digest	ug/g	95.00	<1.00e-02	1.84e+03	1.86e+03	1.85e+03	1.08	85.40	4.600	n/a
S961003027	A Molybdenum -ICP-Acid Digest	ug/g	95.20	<5.00e-02	37.80	34.70	36.25	8.55	97.20	23.00	n/a
S961003027	A Sodium -ICP-Acid Digest	ug/g	160.4	1.080	1.64e+05	1.59e+05	1.62e+05	3.10	-1.33e03	42.00	n/a
S961003027	A Neodymium -ICP-Acid Digest	ug/g	100.4	<1.00e-01	1.10e+02	109.0	109.5	0.91	99.80	42.00	n/a
S961003027	A Nickel -ICP-Acid Digest	ug/g	99.20	<2.00e-02	2.28e+02	277.0	287.5	7.30	99.40	9.200	n/a
S961003027	A Phosphorus -ICP-Acid Digest	ug/g	92.40	<2.00e-01	1.32e+03	1.54e+03	1.43e+03	15.4	92.40	92.00	n/a
S961003027	A Lead -ICP-Acid Digest	ug/g	92.60	<1.00e-01	2.68e+02	260.0	264.0	3.03	92.40	42.00	n/a
S961003027	A Sulfur -ICP-Acid Digest	ug/g	93.80	<1.00e-01	2.54e+03	2.13e+03	2.24e+03	9.40	72.60	42.00	n/a
S961003027	A Antimony -ICP-Acid Digest	ug/g	88.40	<6.00e-02	<27.60	<2.79e1	n/a	n/a	92.60	27.60	n/a
S961003027	A Selenium -ICP-Acid Digest	ug/g	94.00	<1.00e-01	<46.00	<4.65e1	n/a	n/a	95.40	46.00	n/a
S961003027	A Smarum -ICP-Acid Digest	ug/g	246.0	2.11e-01	1.30e+02	118.0	124.0	9.68	132.4	23.00	n/a
S961003027	A Strontium -ICP-Acid Digest	ug/g	96.60	<1.00e-02	<4.600	<4.65e0	n/a	n/a	100.6	4.600	n/a
S961003027	A Tantalum -ICP-Acid Digest	ug/g	96.80	<1.00e-02	<4.600	<4.65e0	n/a	n/a	97.00	4.600	n/a
S961003027	A Tellurium -ICP-Acid Digest	ug/g	92.20	<1.00e-02	<4.600	<4.65e0	n/a	n/a	98.80	4.600	n/a
S961003027	A Thallium -ICP-Acid Digest	ug/g	91.80	<2.00e-01	<92.00	<9.29e1	n/a	n/a	90.60	92.00	n/a
S961003027	A Uranium -ICP-Acid Digest	ug/g	99.00	<5.00e-01	4.10e+02	381.0	395.5	7.33	97.60	23.00	n/a
S961003027	A Vanadium -ICP-Acid Digest	ug/g	96.60	<5.00e-02	<23.00	<2.32e1	n/a	n/a	96.60	23.00	n/a
S961003027	A Zinc -ICP-Acid Digest	ug/g	93.60	1.40e-02	46.20	50.00	48.10	7.90	95.20	4.600	n/a
S961003027	A Zirconium -ICP-Acid Digest	ug/g	94.00	<1.00e-02	57.70	57.10	57.40	1.05	95.80	4.600	n/a
S961003028	W Fluoride-IC-Dioxin 4000/4500	ug/g	96.10	<1.30e-02	<54.58	<5.43e1	n/a	109.3	71.38	n/a	n/a
S961003028	W Chloride-IC-Dioxin 4000/4500	ug/g	94.81	<1.00e-02	2.52e+03	2.41e+03	2.46e+03	4.46	102.7	57.58	n/a
S961003028	W Nitrite-IC - Dioxin 4000/4500	ug/g	100.4	<1.0e-01	5.30e+04	5.10e+04	5.20e+04	3.85	105.0	449.2	n/a
S961003028	W Bromide by Ion Chromatograph	ug/g	102.7	<1.0e-01	6.36e+02	636.0	634.0	0.31	98.30	592.6	n/a
S961003028	W Nitrate by IC-Dioxin 4000/4500	ug/g	103.0	1.46e-01	1.41e+05	1.36e+05	1.39e+05	3.61	100.8	587.2	n/a
S961003028	W Phosphate-IC-Dioxin 4000/4500	ug/g	97.43	<1.19e-01	3.53e+03	3.52e+03	3.53e+03	0.85	93.76	499.2	n/a
S961003028	W Sulfate by IC-Dioxin 4000/4500	ug/g	102.9	<1.30e-01	6.19e+03	6.04e+03	6.11e+03	2.45	101.0	570.8	n/a
S961003028	W Oxalate by IC-Dioxin 4000/4500	ug/g	99.62	<1.0e-01	7.28e+03	6.97e+03	7.11e+03	3.94	97.73	440.3	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
59510030291		Bulk Density of Sample	g/ml	n/a	n/a	1.580	n/a	n/a	n/a	n/a	5.00e-01	n/a
59510030311		Cyanide Water Distillation	g/g	104.3	<2.75e-02	32.10	35.10	33.60	8.93	47.00	6.250	n/a
59510030311		DSC Exotherm Dry Calculated	Joules/g	98.42	n/a	4.45e+02	469.3	461.9	5.11	n/a	n/a	n/a
59510030311		DSC Exotherm Dry Calculated	Joules/g	98.42	n/a	7.72e+02	811.9	761.9	5.10	n/a	n/a	n/a
59510030311		% Water by TGA using Mettler	%	98.41	n/a	<2.20	<2.19	42.20	0.02	n/a	n/a	n/a
59510030311		TIC by GC/MS using Mettler	g/g	100.2	1.800	1.47e+04	1.50e+04	1.48e+04	2.02	100.0	5.000	n/a
59510030311		Top 20 Peaks/Total/Countmetry	g/g	91.00	<1.00e-02	2.56e+04	2.25e+04	2.58e+04	3.61	97.40	20.00	n/a
59510030329		F Silicon - ICP-Fusion	g/g	99.80	<1.00e-02	2.04e+02	2.02e+02	2.03e+02	89.7	82.60	20.00	n/a
59510030329		F Aluminum - ICP-Fusion	g/g	98.40	<1.00e-02	1.76e+04	3.08e+04	2.12e+04	n/a	101.0	1.02e+03	n/a
59510030329		F Arsenic - ICP-Fusion	g/g	103.1	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	98.70	2.04e+03	n/a
59510030329		F Boron - ICP-Fusion	g/g	101.2	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	97.00	1.02e+03	n/a
59510030329		F Barium - ICP-Fusion	g/g	100.5	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	101.0	1.02e+03	n/a
59510030329		F Beryllium - ICP-Fusion	g/g	103.5	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	95.90	1.02e+03	n/a
59510030329		F Bismuth - ICP-Fusion	g/g	102.1	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	105.0	2.04e+03	n/a
59510030329		F Cadmium - ICP-Fusion	g/g	101.8	<1.00e-01	<1.02e+03	<1.01e+03	n/a	n/a	100.0	1.02e+03	n/a
59510030329		F Calcium - ICP-Fusion	g/g	103.4	<1.00e-02	<1.02e+03	<2.02e+03	n/a	n/a	102.0	2.04e+03	n/a
59510030329		F Cobalt - ICP-Fusion	g/g	102.4	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	100.0	1.02e+03	n/a
59510030329		F Chromium - ICP-Fusion	g/g	104.6	<1.00e-02	<2.04e+03	<2.02e+03	3.12e+03	1.28	102.0	20.00	n/a
59510030329		F Copper - ICP-Fusion	g/g	102.2	<1.00e-02	<2.04e+03	<2.02e+03	n/a	n/a	99.70	1.02e+03	n/a
59510030329		F Iron - ICP-Fusion	g/g	102.2	<1.00e-02	<2.04e+03	<2.02e+03	2.46e+03	52.3	99.70	1.02e+03	n/a
59510030329		F Potassium - ICP-Fusion	g/g	99.00	<1.00e-01	6.13e+06	n/a	n/a	n/a	99.10	1.02e+03	n/a
59510030329		F Lanthanum - ICP-Fusion	g/g	101.4	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	96.40	20.00	n/a
59510030329		F Lithium - ICP-Fusion	g/g	100.4	<1.00e-02	<2.04e+03	<2.02e+03	n/a	n/a	96.40	20.00	n/a
59510030329		F Magnesium - ICP-Fusion	g/g	97.80	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	95.40	20.00	n/a
59510030329		F Manganese - ICP-Fusion	g/g	100.6	<1.00e-02	<1.02e+03	<1.01e+03	1.38e+03	52.2	95.40	20.00	n/a
59510030329		F Molybdenum - ICP-Fusion	g/g	102.0	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	100.0	1.02e+03	n/a
59510030329		F Sodium - ICP-Fusion	g/g	100.2	<1.00e-01	1.77e+05	1.67e+05	1.72e+05	5.81	88.10	2.04e+03	n/a
59510030329		F Nickel - ICP-Fusion	g/g	102.6	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	100.0	2.04e+03	n/a
59510030329		F Neodymium - ICP-Fusion	g/g	101.6	<1.00e-02	<2.04e+03	<2.02e+03	6.54e+03	40.2	99.50	40.00	n/a
59510030329		F Phosphorus - ICP-Fusion	g/g	102.0	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	107.0	4.07e+03	n/a
59510030329		F Lead - ICP-Fusion	g/g	101.0	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	106.0	2.04e+03	n/a
59510030329		F Sulfur - ICP-Fusion	g/g	99.80	<1.00e-01	<2.04e+03	<2.02e+03	3.13e+03	50.5	97.80	2.04e+03	n/a
59510030329		F Antimony - ICP-Fusion	g/g	97.20	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	96.40	1.02e+03	n/a
59510030329		F Selenium - ICP-Fusion	g/g	99.40	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	97.90	1.02e+03	n/a
59510030329		F Silicon - ICP-Fusion	g/g	96.40	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	97.90	1.02e+03	n/a
59510030329		F Strontium - ICP-Fusion	g/g	99.80	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	96.90	2.04e+03	n/a
59510030329		F Tantalum - ICP-Fusion	g/g	99.40	<1.00e-02	<1.02e+03	<2.02e+03	n/a	n/a	95.30	20.00	n/a
59510030329		F Titanium - ICP-Fusion	g/g	98.80	<1.00e-02	<1.02e+03	<2.02e+03	n/a	n/a	95.30	20.00	n/a
59510030329		F Thallium - ICP-Fusion	g/g	98.80	<1.00e-01	<2.04e+03	<2.02e+03	n/a	n/a	92.00	1.02e+03	n/a
59510030329		F Uranium - ICP-Fusion	g/g	101.8	<1.00e-02	<1.02e+03	<1.01e+03	n/a	n/a	99.90	1.02e+03	n/a
59510030329		F Vanadium - ICP-Fusion	g/g	103.6	<1.00e-02	<1.02e+03	<1.01e+03	99.20	5.65	101.0	20.00	n/a
59510030329		F Zinc - ICP-Fusion	g/g	99.40	<1.00e-02	<2.04e+03	<2.02e+03	n/a	n/a	97.20	20.00	n/a
59510030329		F Zirconium - ICP-Fusion	g/g	105.5	<1.00e-02	<2.04e+03	<2.02e+03	1.77e+01	9.63	n/a	18.9	n/a
59510030329		F Cobalt-60 by GEA	uCi/g	101.3	<1.03e-01	1.81e+01	1.85e+01	182.8	2.10	n/a	0.420	n/a
59510030329		F Cesium-137 by GEA	uCi/g	101.3	<1.03e-01	1.435e+01	1.560e+01	1.698e+01	8.00	n/a	9.10	n/a
59510030329		F Europium-154 by GEA	uCi/g	n/a	<2.96e-01	1.435e+01	1.560e+01	1.698e+01	8.00	n/a	9.10	n/a
59510030329		F Europium-155 by GEA	uCi/g	n/a	<1.76e-01	9.88e+01	1.040e+01	1.011e+01	5.13	n/a	n/a	32.4

WHC-SD-WM-DP-191, REV. I

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S957003029	F	Americium-241 by GEA	uCi/g	n/a	< 5.5e-03	1.604	1.510	1.707	12.3	n/a	n/a	4.0-1
S957003029	F	Alpha of Digested Solid	uCi/g	122.7	< 5.5e-03	1.190	1.170	1.180	87.42	7.00e-03	n/a	4.92e+00
S957003036	A	Silver - ICP-Acid Digest	uCi/g	79.50	< 1.00e-02	16.00	15.40	15.70	3.82	95.40	4.740	n/a
S957003036	A	Aluminum - ICP-Acid Digest	uCi/g	105.4	< 1.00e-02	1.12e+04	1.12e+04	1.12e+04	0.00	71.60	35.60	n/a
S957003036	A	Arsenic - ICP-Acid Digest	uCi/g	99.60	< 1.00e-01	< 47.30	< 48.8e3	n/a	97.60	102.0	35.60	n/a
S957003036	A	Boron - ICP-Acid Digest	uCi/g	119.0	< 3.82e-01	1.02e+02	68.20	85.10	39.7	97.60	35.60	n/a
S957003036	A	Bromine - ICP-Acid Digest	uCi/g	97.40	< 5.00e-02	< 23.70	< 2.44e0	n/a	95.80	95.80	35.60	n/a
S957003036	A	Beryllium - ICP-Acid Digest	uCi/g	101.4	< 5.00e-03	< 2.70	< 4.88e1	n/a	95.40	95.40	35.60	n/a
S957003036	A	Bismuth - ICP-Acid Digest	uCi/g	95.40	< 1.00e-01	< 47.30	< 48.8e3	n/a	95.40	95.40	35.60	n/a
S957003036	A	Calcium - ICP-Acid Digest	uCi/g	115.2	< 2.35e-01	3.18e+02	315.0	316.6	0.95	94.20	35.60	n/a
S957003036	A	Cadmium - ICP-Acid Digest	uCi/g	95.80	< 5.00e-03	55.10	54.90	55.00	0.32	94.20	35.60	n/a
S957003036	A	Cesium - ICP-Acid Digest	uCi/g	98.60	< 1.00e-01	77.20	74.20	75.70	3.96	94.20	35.60	n/a
S957003036	A	Cobalt - ICP-Acid Digest	uCi/g	98.60	< 2.00e-02	< 9.670	< 9.77e0	2.99e+03	2.78	97.00	9.400	n/a
S957003036	A	Columbium - ICP-Acid Digest	uCi/g	96.00	< 5.00e-02	3.02e+03	2.99e+03	19.75	3.54	92.80	4.740	n/a
S957003036	A	Copper - ICP-Acid Digest	uCi/g	99.00	< 5.00e-02	1.36e+03	1.35e+03	2.98e+03	3.03	87.80	35.60	n/a
S957003036	A	Fluorine - ICP-Acid Digest	uCi/g	99.00	< 5.00e-01	1.36e+03	1.35e+03	1.36e+03	0.74	98.20	35.60	n/a
S957003036	A	Potassium - ICP-Acid Digest	uCi/g	100.2	< 5.00e-02	< 41.70	< 4.730	41.25	2.18	97.20	35.60	n/a
S957003036	A	Lithium - ICP-Acid Digest	uCi/g	99.80	< 1.00e-01	< 47.30	< 48.8e3	n/a	94.40	94.40	35.60	n/a
S957003036	A	Magnesium - ICP-Acid Digest	uCi/g	99.80	< 1.00e-01	< 47.30	< 48.8e3	n/a	94.40	94.40	35.60	n/a
S957003036	A	Manganese - ICP-Acid Digest	uCi/g	95.00	< 5.00e-02	1.02e+03	982.0	1.00e+03	3.27	90.40	4.740	n/a
S957003036	A	Mercury - ICP-Acid Digest	uCi/g	95.20	< 5.00e-02	34.90	35.70	35.30	2.80	90.40	35.60	n/a
S957003036	A	Nickel - ICP-Acid Digest	uCi/g	100.4	< 1.00e-01	1.080	1.65e+05	1.64e+05	0.61	-1.800e2	47.40	n/a
S957003036	A	Neodymium - ICP-Acid Digest	uCi/g	100.4	< 1.00e-02	2.93e+02	291.0	292.0	0.68	97.00	9.400	n/a
S957003036	A	Niobium - ICP-Acid Digest	uCi/g	92.40	< 2.00e-01	1.69e+03	1.37e+03	1.53e+03	20.9	65.00	9.400	n/a
S957003036	A	Phosphorus - ICP-Acid Digest	uCi/g	92.40	< 1.00e-01	3.38e+02	345.0	341.5	2.05	92.80	47.40	n/a
S957003036	A	Selenium - ICP-Acid Digest	uCi/g	93.80	< 1.00e-01	3.71e+03	3.67e+03	3.69e+03	1.08	90.40	47.40	n/a
S957003036	A	Silver - ICP-Acid Digest	uCi/g	88.40	< 4.00e-02	< 28.40	< 2.93e1	n/a	91.20	91.20	35.60	n/a
S957003036	A	Antimony - ICP-Acid Digest	uCi/g	94.00	< 1.00e-01	< 47.30	< 48.8e3	n/a	93.60	93.60	47.40	n/a
S957003036	A	Silicon - ICP-Acid Digest	uCi/g	246.0	< 2.11e-01	1.38e+02	152.0	165.0	9.66	194.6	35.60	n/a
S957003036	A	Samarium - ICP-Acid Digest	uCi/g	98.40	< 1.00e-01	< 47.30	< 48.8e3	n/a	99.20	99.20	35.60	n/a
S957003036	A	Sr-90 - ICP-Acid Digest	uCi/g	96.80	< 1.00e-02	< 4.730	< 4.88e0	n/a	95.00	95.00	4.740	n/a
S957003036	A	Titanium - ICP-Acid Digest	uCi/g	92.20	< 1.00e-02	< 4.730	< 4.88e0	n/a	96.80	96.80	4.740	n/a
S957003036	A	Thallium - ICP-Acid Digest	uCi/g	91.80	< 5.00e-01	< 9.670	< 9.77e0	n/a	88.40	88.40	9.400	n/a
S957003036	A	Uranium - ICP-Acid Digest	uCi/g	99.00	< 5.00e-01	0.04e+02	772.0	789.0	4.31	95.60	23.60	n/a
S957003036	A	Vanadium - ICP-Acid Digest	uCi/g	96.40	< 1.00e-02	< 23.70	< 2.44e0	n/a	94.80	94.80	35.60	n/a
S957003036	A	Zinc - ICP-Acid Digest	uCi/g	93.60	< 4.00e-02	43.30	41.90	42.60	3.29	94.20	4.740	n/a
S957003036	A	Zirconium - ICP-Acid Digest	uCi/g	94.00	< 1.00e-02	87.70	85.30	86.50	2.77	94.60	4.740	n/a
S957003043	M	Fluoride - IC-Dioxin 4000/4500	uCi/g	96.10	< 1.30e-02	< 53.75	< 5.43e1	n/a	n/a	n/a	53.75	n/a
S957003043	M	Chloride - IC-Dioxin 4000/4500	uCi/g	100.4	< 1.70e-02	2.59e+03	2.63e+03	2.61e+03	1.53	n/a	70.25	n/a
S957003043	M	Nitrite - IC - Dioxin 4000/4500	uCi/g	81.40	< 1.07e-02	5.4e+04	5.67e+04	5.60e+04	2.32	n/a	44.5	n/a
S957003043	M	Acetate by Ion Chromatograph	uCi/g	102.7	< 1.26e-01	9.18e+02	1.00e+03	959.1	8.55	n/a	571.0	n/a
S957003043	M	Nitrate by IC-Dioxin 4000/4500	uCi/g	103.0	< 1.46e-01	1.47e+05	1.49e+05	1.48e+05	1.35	n/a	578.3	n/a
S957003043	M	Phosphate by IC-Dioxin 4000/4500	uCi/g	97.29	< 1.39e-01	4.10e+03	4.10e+03	4.30e+03	1.11	n/a	562.0	n/a
S957003043	M	Sulfate by IC-Dioxin 4000/4500	uCi/g	102.9	< 1.36e-01	1.08e+04	1.08e+04	1.08e+04	0.00	n/a	562.0	n/a
S957003043	M	Uodate by IC-Dioxin 4000/4500	uCi/g	99.62	< 1.05e-01	9.13e+03	9.18e+03	9.15e+03	0.55	n/a	454.1	n/a

WHC-SD-WM-DP-191, REV. I

Drainable Liquid: Drainable Liquid

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S961003051		DSC Exotherm DRY	Calculated			8.51e+02	850.3	850.8	0.11	n/a	n/a		n/a
S961003051		DSC Exotherm on Perkin Elmer	Jooules/g Dry	101.9	n/a	8.51e+02	433.0	433.2	0.11	n/a	n/a		n/a
S961003051		Specific Gravity	Jooules/g	99.32	n/a	1.326	1.326	1.326	0.11	n/a	1.00e-03		n/a
S961003051		% Water by TGA on Perkin Elmer	Sp-G	99.32	n/a	48.11	47.89	47.89	0.90	n/a	n/a		n/a
S961003051		Tot. Organic Carbon by Coul.	wt/ml	96.47	2.100	4.26e+04	4.09e+04	4.18e+04	4.07	87.86	409.0		n/a
S961003051		TIC by Acid/Coulometry	wt/ml	97.84	1.400	9.29e+03	9.71e+03	9.50e+03	4.42	115.0	5.00e		n/a
S961003051		TIC by Persulfate/Coulometry	wt/ml	88.33	7.700	3.36e+04	3.35e+04	3.36e+04	0.30	n/a	n/a		n/a
S961003051		D Silicon-PC-Acid Dill.	wt/ml	99.90	< 1.00e-02	< 10.00	< 1.00e1	< 1.00e1	n/a	97.50	10.00		n/a
S961003051		D Aluminum-PC-Acid Dill.	wt/ml	98.80	< 1.00e-02	1.32e+02	1.16e+02	1.23e+02	14.6	-9.66e1	30.10		n/a
S961003051		D Arsenic-PC-Acid Dill.	wt/ml	103.0	< 1.00e-01	< 1.00e+02	< 1.00e2	< 1.00e2	n/a	104.0	100.0		n/a
S961003051		D Barium-PC-Acid Dill.	wt/ml	104.2	< 5.00e-02	< 5.00	< 5.01e1	< 5.01e1	n/a	103.0	30.10		n/a
S961003051		D Barium-PC-Acid Dill.	wt/ml	100.0	< 5.00e-02	< 5.00	< 5.01e1	< 5.01e1	n/a	103.0	30.10		n/a
S961003051		D Beryllium-PC-Acid Dill.	wt/ml	103.8	< 5.00e-02	< 5.00	< 5.01e1	< 5.01e1	n/a	102.0	3.00e		n/a
S961003051		D Bismuth-PC-Acid Dill.	wt/ml	99.89	< 1.00e-01	< 1.00e+02	< 1.00e2	< 1.00e2	n/a	95.10	100.0		n/a
S961003051		D Calcium-PC-Acid Dill.	wt/ml	100.2	< 1.00e-02	1.02e+02	87.10	404.9	17.8	92.40	100.0		n/a
S961003051		D Cadmium-PC-Acid Dill.	wt/ml	100.6	< 1.00e-03	1.02e+02	87.10	94.05	16.9	92.40	5.00e		n/a
S961003051		D Cerium-PC-Acid Dill.	wt/ml	101.2	< 1.00e-01	< 1.00e+02	< 1.00e2	< 1.00e2	n/a	101.0	100.0		n/a
S961003051		D Cobalt-PC-Acid Dill.	wt/ml	101.6	< 2.00e-02	< 20.00	< 2.00e1	< 2.00e1	n/a	101.0	20.00		n/a
S961003051		D Chromium-PC-Acid Dill.	wt/ml	100.8	< 1.00e-02	4.38e+02	373.0	405.5	16.0	83.30	10.00		n/a
S961003051		D Copper-PC-Acid Dill.	wt/ml	100.4	< 1.00e-02	34.90	29.90	32.40	15.4	103.0	10.00		n/a
S961003051		D Iron-PC-Acid Dill.	wt/ml	103.2	< 5.00e-02	< 50.10	< 5.01e1	< 5.01e1	19.5	106.0	10.00		n/a
S961003051		D Potassium-PC-Acid Dill.	wt/ml	100.6	< 5.00e-01	1.76e+03	1.76e+03	1.95e+03	19.5	71.70	500.0		n/a
S961003051		D Lanthanum-PC-Acid Dill.	wt/ml	102.4	< 5.00e-02	< 50.10	< 5.01e1	< 5.01e1	n/a	103.0	50.00		n/a
S961003051		D Lithium-PC-Acid Dill.	wt/ml	103.6	< 1.00e-02	< 10.00	< 1.00e1	< 1.00e1	n/a	103.0	100.0		n/a
S961003051		D Magnesium-PC-Acid Dill.	wt/ml	96.60	< 1.00e-02	< 1.00e+02	< 1.00e2	< 1.00e2	n/a	92.50	100.0		n/a
S961003051		D Manganese-PC-Acid Dill.	wt/ml	100.8	< 1.00e-02	67.90	64.00	56.95	38.8	98.10	10.00		n/a
S961003051		D Molybdenum-PC-Acid Dill.	wt/ml	92.80	< 5.00e-02	70.30	58.10	64.20	19.0	97.40	50.00		n/a
S961003051		D Nickel-PC-Acid Dill.	wt/ml	101.8	< 1.00e-01	1.23e+02	1.03e2	2.38e+05	12.2	-3.11e+3	100.0		n/a
S961003051		D Neodymium-PC-Acid Dill.	wt/ml	100.9	< 1.00e-02	5.94e+02	< 1.00e2	< 1.00e2	n/a	115.0	100.0		n/a
S961003051		D Phosphorus-PC-Acid Dill.	wt/ml	100.6	< 2.00e-02	5.94e+02	503.0	548.5	16.6	89.40	20.00		n/a
S961003051		D Lead-PC-Acid Dill.	wt/ml	103.8	< 2.00e-01	1.18e+03	1.18e+03	1.31e+03	19.8	97.30	200.0		n/a
S961003051		D Sodium-PC-Acid Dill.	wt/ml	102.8	< 1.00e-01	2.14e+02	184.0	199.0	15.1	97.90	100.0		n/a
S961003051		D Sulfur-PC-Acid Dill.	wt/ml	93.2	< 1.00e-01	3.22e+02	2.72e+02	2.97e+02	16.8	55.40	100.0		n/a
S961003051		D Tellurium-PC-Acid Dill.	wt/ml	96.60	< 5.00e-02	< 60.10	< 6.01e1	< 6.01e1	n/a	93.50	60.10		n/a
S961003051		D Selenium-PC-Acid Dill.	wt/ml	103.8	2.03e-01	1.42e+02	193.0	177.5	17.5	108.0	100.0		n/a
S961003051		D Silicon-PC-Acid Dill.	wt/ml	99.00	< 5.00e-02	< 50.10	< 5.01e1	< 5.01e1	n/a	105.0	50.10		n/a
S961003051		D Strontium-PC-Acid Dill.	wt/ml	100.6	< 1.00e-01	< 1.00e+02	< 1.00e2	< 1.00e2	n/a	101.0	100.0		n/a
S961003051		D Tantalum-PC-Acid Dill.	wt/ml	97.60	< 1.00e-02	< 10.00	< 1.00e1	< 1.00e1	n/a	97.40	10.00		n/a
S961003051		D Thallium-PC-Acid Dill.	wt/ml	98.60	< 2.00e-01	< 2.00e+02	< 2.00e2	< 2.00e2	n/a	104.0	200.0		n/a
S961003051		D Uranium-PC-Acid Dill.	wt/ml	92.00	< 5.00e-01	< 5.00e+02	< 5.00e2	< 5.00e2	n/a	87.00	500.0		n/a
S961003051		D Vanadium-PC-Acid Dill.	wt/ml	100.6	< 5.00e-02	< 50.10	< 5.01e1	< 5.01e1	n/a	99.70	50.10		n/a
S961003051		D Zinc-PC-Acid Dill.	wt/ml	102.0	< 1.00e-02	15.30	11.90	13.70	26.5	98.90	10.00		n/a
S961003051		D Zirconium-PC-Acid Dill.	wt/ml	98.80	< 1.00e-02	< 10.00	< 1.00e1	< 1.00e1	n/a	99.20	10.00		n/a
S961003051		Fluoride-IC-Dioxex 4000/4500	wt/ml	97.12	< 1.30e-02	< 5.83	< 5.83e1	< 5.83e1	n/a	n/a	52.83		n/a
S961003051		Chloride-IC-Dioxex 4000/4500	wt/ml	97.72	< 1.70e-02	5.92e+03	5.92e+03	5.91e+03	0.34	n/a	74.01		n/a
S961003051		Nitrite-IC - Dioxex 4000/4500	wt/ml	96.51	< 1.07e-01	1.11e+05	1.13e+05	1.12e+05	1.79	n/a	443.1		n/a
S961003051		Bromide by Ion Chromatograph	wt/ml	98.30	< 1.26e-01	< 5.22e+02	< 5.22e2	< 5.22e2	n/a	n/a	521.8		n/a

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S96T003051		Nitrate by IC-Dionex 4000/4500	ug/mL	98.42	1.50e-01	2.66e+05	2.67e+05	2.66e+05	0.38	n/a	579.7	n/a
S96T003051		Phosphate by IC-Dionex 4000/4500	ug/mL	99.27	<1.19e-01	3.89e+03	3.75e+03	3.82e+03	3.66	n/a	492.4	n/a
S96T003051		Sulfate by IC-Dionex 4000/4500	ug/mL	98.26	<1.36e-01	8.70e+03	8.64e+03	8.67e+03	0.69	n/a	542.8	n/a
S96T003051		Oxalate by IC-Dionex 4000/4500	ug/mL	101.7	<1.05e-01	5.58e+02	640.0	609.9	16.7	n/a	434.8	n/a
S96T003051		Alpha in Liquid Samples	uCi/mL	102.3	<6.23e-03	3.07e-01	2.45e-01	2.86e-01	14.7	77.72	1.30e-02	1.36E+01

Table 1. Data Summary Table
U-106 (P)

CORE NUMBER: 148
SEGMENT #: 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Skw Rec %	Det Limit	Count	Err%
S9251003030	F Cyanide Water Distillation	ug/g	104.3	<2.75e-02	<5	4.490	n/a	n/a	n/a	3.780	n/a	n/a
S9251003030	F DSC Exotherm Using Mettler	Joules/g	98.42	n/a	4.19e+03	438.4	428.5	4.32	n/a	n/a	n/a	n/a
S9251003030	F DSC Exotherm DRY Calculated	Joules/g DRY	99.97	n/a	7.52e+03	786.8	769.9	5.32	n/a	n/a	n/a	n/a
S9251003030	F Water by IGA using Mettler	ug/g	99.97	n/a	4.47e-06	43.97	44.28	2.28	n/a	n/a	n/a	n/a
S9251003030	F TIC by Acid/Coulometry	ug/g	102.3	4.400	1.52e+04	1.43e+04	1.48e+04	6.70	n/a	5.000	n/a	n/a
S9251003030	F TOC by Persulfate/Coulometry	ug/g	85.00	11.30	<2.57e-02	2.55e+02	2.56e+02	0.78	n/a	202.0	n/a	n/a
S9251003030	F Silicon - ICP-Fusion	ug/g	99.80	<1.00e-02	<2.02e+03	1.24e+04	1.24e+04	95.6	n/a	4.990	n/a	n/a
S9251003030	F Aluminum - ICP-Fusion	ug/g	98.40	<5.00e-02	<2.02e+03	2.14e+04	2.14e+04	95.6	n/a	4.990	n/a	n/a
S9251003030	F Arsenic - ICP-Fusion	ug/g	103.6	<5.00e-01	<2.02e+03	<1.00e+3	n/a	n/a	n/a	103.0	n/a	n/a
S9251003030	F Boron - ICP-Fusion	ug/g	101.2	<5.00e-02	<1.01e+03	<1.00e+3	n/a	n/a	n/a	98.90	n/a	n/a
S9251003030	F Barium - ICP-Fusion	ug/g	100.8	<5.00e-02	<1.01e+03	<1.00e+3	n/a	n/a	n/a	98.90	n/a	n/a
S9251003030	F Beryllium - ICP-Fusion	ug/g	103.6	<5.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	101.0	n/a	n/a
S9251003030	F Bismuth - ICP-Fusion	ug/g	102.4	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	97.80	n/a	n/a
S9251003030	F Calcium - ICP-Fusion	ug/g	101.8	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	104.0	n/a	n/a
S9251003030	F Cadmium - ICP-Fusion	ug/g	103.4	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	102.0	n/a	n/a
S9251003030	F Cerium - ICP-Fusion	ug/g	102.4	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	102.0	n/a	n/a
S9251003030	F Cobalt - ICP-Fusion	ug/g	102.4	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	102.0	n/a	n/a
S9251003030	F Chromium - ICP-Fusion	ug/g	104.6	<1.00e-02	<2.02e+03	<2.00e+3	3.12e+03	12.2	n/a	404.0	n/a	n/a
S9251003030	F Copper - ICP-Fusion	ug/g	102.2	<5.00e-02	<2.02e+03	2.93e+03	2.93e+03	36.2	n/a	202.0	n/a	n/a
S9251003030	F Iron - ICP-Fusion	ug/g	99.00	<5.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	97.90	n/a	n/a
S9251003030	F Potassium - ICP-Fusion	ug/g	101.4	<5.00e-02	<1.01e+03	<1.00e+3	n/a	n/a	n/a	99.90	n/a	n/a
S9251003030	F Lanthanum - ICP-Fusion	ug/g	100.4	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	95.90	n/a	n/a
S9251003030	F Lithium - ICP-Fusion	ug/g	97.80	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	95.90	n/a	n/a
S9251003030	F Magnesium - ICP-Fusion	ug/g	100.6	<1.00e-01	<2.02e+03	<2.00e+3	1.39e+03	58.0	n/a	2.02e+03	n/a	n/a
S9251003030	F Manganese - ICP-Fusion	ug/g	100.6	<1.00e-02	<1.79e+03	985.0	1.39e+03	58.0	n/a	2.02e+03	n/a	n/a
S9251003030	F Molybdenum - ICP-Fusion	ug/g	102.0	<5.00e-02	<1.01e+03	<1.00e+3	n/a	n/a	n/a	95.90	n/a	n/a
S9251003030	F Sodium - ICP-Fusion	ug/g	100.2	<1.00e-01	<1.71e+03	1.78e+03	1.78e+03	4.01	n/a	1.01e+03	n/a	n/a
S9251003030	F Neodymium - ICP-Fusion	ug/g	102.6	<1.00e-02	<2.02e+03	<2.00e+3	7.00e+03	64.9	n/a	2.02e+03	n/a	n/a
S9251003030	F Nickel - ICP-Fusion	ug/g	101.6	<1.00e-02	<2.02e+03	<2.00e+3	7.00e+03	64.9	n/a	2.02e+03	n/a	n/a
S9251003030	F Phosphorus - ICP-Fusion	ug/g	102.0	<2.00e-01	<4.04e+03	<4.01e+3	n/a	n/a	n/a	96.90	n/a	n/a
S9251003030	F Lead - ICP-Fusion	ug/g	101.0	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	101.0	n/a	n/a
S9251003030	F Sulfur - ICP-Fusion	ug/g	97.20	<1.00e-02	<2.02e+03	<2.00e+3	3.20e+03	46.5	n/a	1.01e+03	n/a	n/a
S9251003030	F Antimony - ICP-Fusion	ug/g	99.80	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	96.40	n/a	n/a
S9251003030	F Selenium - ICP-Fusion	ug/g	99.00	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	96.40	n/a	n/a
S9251003030	F Silicon - ICP-Fusion	ug/g	96.40	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	98.50	n/a	n/a
S9251003030	F Samarium - ICP-Fusion	ug/g	98.80	<1.00e-01	<2.02e+03	<2.00e+3	n/a	n/a	n/a	96.30	n/a	n/a
S9251003030	F Strontium - ICP-Fusion	ug/g	99.60	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	97.00	n/a	n/a
S9251003030	F Tantalum - ICP-Fusion	ug/g	98.00	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	96.00	n/a	n/a
S9251003030	F Thallium - ICP-Fusion	ug/g	98.80	<2.00e-01	<4.04e+03	<4.01e+3	n/a	n/a	n/a	96.30	n/a	n/a
S9251003030	F Vanadium - ICP-Fusion	ug/g	97.10	<5.00e-02	<1.01e+03	<1.00e+3	n/a	n/a	n/a	99.00	n/a	n/a
S9251003030	F Uranium - ICP-Fusion	ug/g	101.8	<5.00e-02	<1.01e+03	<1.00e+3	n/a	n/a	n/a	99.00	n/a	n/a
S9251003030	F Vanadium - ICP-Fusion	ug/g	103.6	<4.00e-02	8.19e+02	1.11e+03	964.5	30.2	n/a	202.0	n/a	n/a
S9251003030	F Zinc - ICP-Fusion	ug/g	99.60	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	97.40	n/a	n/a
S9251003030	F Zirconium - ICP-Fusion	ug/g	99.60	<1.00e-02	<2.02e+03	<2.00e+3	n/a	n/a	n/a	97.40	n/a	n/a

WHC-SD-WM-DP-191, REV. I

Sample#	Ref Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S961003030	F Cobalt-60 by GEA	uCi/g	105.5	< 0.05e-02	1.78e+01	1.64e+01	1.717e+01	8.13	n/a	n/a	42.0	n/a
S961003030	F Cesium-137 by GEA	uCi/g	101.3	< 0.05e-02	1.70e+02	1.84e+02	1.82e+02	3.21	n/a	n/a	0.380	n/a
S961003030	F Europium-154 by GEA	uCi/g	n/a	< 2.99e-01	1.695	1.670	1.683	3.28	n/a	n/a	11.2	n/a
S961003030	F Europium-155 by GEA	uCi/g	n/a	< 1.78e-01	9.38e+03	9.38e+03	1.122	35.1	n/a	n/a	35.5	n/a
S961003030	A Strontium-90 by GEA	uCi/g	79.50	< 5.53e-01	1.123	1.110	n/a	n/a	n/a	1.173	n/a	n/a
S961003037	A Aluminum - ICP-Acid Digest	ug/g	105.4	8.10e-02	1.08e+04	1.650	16.70	0.00	n/a	22.20	n/a	n/a
S961003037	A Arsenic - ICP-Acid Digest	ug/g	99.60	< 0.05e-01	4.40e+04	4.57e+04	1.08e+04	6.00	n/a	22.20	n/a	n/a
S961003037	A Barium - ICP-Acid Digest	ug/g	119.0	3.82e-01	7.00	68.60	71.50	7.57	n/a	22.20	n/a	n/a
S961003037	A Beryllium - ICP-Acid Digest	ug/g	97.40	< 5.05e-02	2.20	< 2.88e+01	n/a	n/a	n/a	22.20	n/a	n/a
S961003037	A Bromine - ICP-Acid Digest	ug/g	101.4	< 5.05e-02	4.220	< 2.88e+01	n/a	n/a	n/a	22.20	n/a	n/a
S961003037	A Calcium - ICP-Acid Digest	ug/g	115.2	2.03e-01	3.49e+02	334.0	341.5	4.30	n/a	44.40	n/a	n/a
S961003037	A Cadmium - ICP-Acid Digest	ug/g	95.80	< 5.05e-02	57.50	56.80	57.00	0.70	n/a	2.20	n/a	n/a
S961003037	A Cobalt - ICP-Acid Digest	ug/g	98.60	< 0.05e-01	7.70	82.90	80.00	7.25	n/a	44.40	n/a	n/a
S961003037	A Chromium - ICP-Acid Digest	ug/g	96.60	< 0.05e-02	8.870	< 9.14e+01	n/a	n/a	n/a	8.880	n/a	n/a
S961003037	A Copper - ICP-Acid Digest	ug/g	96.60	< 0.05e-02	3.08e+03	3.26e+03	3.17e+03	5.78	n/a	44.40	n/a	n/a
S961003037	A Iron - ICP-Acid Digest	ug/g	96.60	< 0.05e-02	20.90	22.40	21.65	6.93	n/a	44.40	n/a	n/a
S961003037	A Potassium - ICP-Acid Digest	ug/g	99.80	< 5.05e-02	3.23e+03	3.40e+03	3.32e+03	5.13	n/a	22.20	n/a	n/a
S961003037	A Lithium - ICP-Acid Digest	ug/g	99.80	< 5.05e-02	1.44e+03	1.44e+03	1.42e+03	2.11	n/a	22.20	n/a	n/a
S961003037	A Magnesium - ICP-Acid Digest	ug/g	100.2	< 0.05e-02	44.40	< 4.57e+01	45.25	5.52	n/a	22.20	n/a	n/a
S961003037	A Manganese - ICP-Acid Digest	ug/g	99.80	< 0.05e-02	44.40	< 4.57e+01	n/a	n/a	n/a	44.40	n/a	n/a
S961003037	A Molybdenum - ICP-Acid Digest	ug/g	95.20	< 0.05e-02	9.25e+02	984.0	954.5	6.18	n/a	44.40	n/a	n/a
S961003037	A Nickel - ICP-Acid Digest	ug/g	92.40	< 0.05e-02	38.00	36.70	37.35	3.48	n/a	22.20	n/a	n/a
S961003037	A Sodium - ICP-Acid Digest	ug/g	160.4	1.080	1.73e+05	1.74e+05	1.74e+05	0.58	n/a	44.40	n/a	n/a
S961003037	A Neodymium - ICP-Acid Digest	ug/g	100.4	< 0.05e-01	1.30e+02	138.0	134.0	5.97	n/a	44.40	n/a	n/a
S961003037	A Phosphorus - ICP-Acid Digest	ug/g	99.20	< 0.05e-02	3.13e+02	308.0	310.5	1.61	n/a	44.40	n/a	n/a
S961003037	A Lead - ICP-Acid Digest	ug/g	92.40	< 0.05e-01	1.65e+03	1.76e+03	1.70e+03	6.45	n/a	8.880	n/a	n/a
S961003037	A Selenium - ICP-Acid Digest	ug/g	93.80	< 0.05e-01	3.66e+02	305.0	375.5	5.06	n/a	44.40	n/a	n/a
S961003037	A Silver - ICP-Acid Digest	ug/g	88.40	< 0.05e-02	4.20e+03	4.20e+03	4.14e+03	2.65	n/a	44.40	n/a	n/a
S961003037	A Silicon - ICP-Acid Digest	ug/g	94.00	< 0.05e-01	26.60	< 2.74e+01	n/a	n/a	n/a	26.60	n/a	n/a
S961003037	A Strontium - ICP-Acid Digest	ug/g	246.0	2.11e-01	1.68e+02	164.0	165.0	2.41	n/a	22.20	n/a	n/a
S961003037	A Strontium - ICP-Acid Digest	ug/g	96.80	< 0.05e-02	4.440	< 4.57e+01	n/a	n/a	n/a	44.40	n/a	n/a
S961003037	A Thallium - ICP-Acid Digest	ug/g	92.20	< 0.05e-02	4.440	< 4.57e+01	n/a	n/a	n/a	44.40	n/a	n/a
S961003037	A Uranium - ICP-Acid Digest	ug/g	99.00	< 0.05e-01	88.70	< 9.14e+01	n/a	n/a	n/a	88.80	n/a	n/a
S961003037	A Vanadium - ICP-Acid Digest	ug/g	96.60	< 0.05e-02	22.20	< 2.88e+01	852.0	5.87	n/a	22.20	n/a	n/a
S961003037	A Zinc - ICP-Acid Digest	ug/g	95.60	< 0.05e-02	50.00	49.90	49.95	0.20	n/a	44.40	n/a	n/a
S961003037	A Zirconium - ICP-Acid Digest	ug/g	94.00	< 0.05e-02	94.00	99.10	96.75	4.86	n/a	44.40	n/a	n/a
S961003044	F Fluoride-IC-Dioxin 4000/4500	ug/g	95.76	< 1.30e-02	53.74	< 5.34e+01	n/a	n/a	291.5	53.74	n/a	n/a
S961003044	F Chloride-IC-Dioxin 4000/4500	ug/g	96.71	< 1.90e-02	3.92e+02	2.97e+03	3.45e+03	27.6	67.34	70.27	n/a	n/a
S961003044	N Nitrite-IC - Dioxin 4000/4500	ug/g	96.69	< 1.07e-01	5.69e+04	5.61e+04	5.65e+04	1.42	100.2	442.3	n/a	n/a
S961003044	N Bromide by Ion Chromatograph	ug/g	99.49	< 2.1e+02	< 5.17e+02	< 5.17e+02	n/a	n/a	97.28	520.8	n/a	n/a
S961003044	N Nitrate by IC-Dioxin 4000/4500	ug/g	96.30	< 1.45e-01	1.45e+05	1.45e+05	1.45e+05	0.00	74.75	578.3	n/a	n/a
S961003044	N Phosphate-IC-Dioxin 4000/4500	ug/g	97.61	< 1.19e-01	5.81e+03	6.01e+03	5.91e+03	3.38	99.45	491.6	n/a	n/a
S961003044	N Sulfate by IC-Dioxin 4000/4500	ug/g	98.42	< 1.36e-01	1.15e+04	1.12e+04	1.13e+04	2.64	97.78	561.8	n/a	n/a
S961003044	N Oxalate by IC-Dioxin 4000/4500	ug/g	100.0	< 0.05e-01	9.82e+03	9.85e+03	9.84e+03	0.31	99.81	434.1	n/a	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD	% Spk Rec	Det Limit	Count Err%
5961003012		Bulk Density of Sample	g/mL	104.3	0.0	1.480	n/a	n/a	n/a	n/a	5.00e-01	n/a
5961003013		Gravimetric Density	g/mL	104.3	-2.75e-02	-8.28	-4.23	n/a	n/a	n/a	8.280	n/a
5961003013		Dist. Extolium using Mettler	1000es/g	98.42	n/a	6.42e+02	483.0	462.6	8.84	n/a	n/a	n/a
5961003013		Dist. Extolium Dry Calculated	1000es/g Dry	99.97	n/a	8.39e+02	616.0	877.4	8.84	n/a	n/a	n/a
5961003013		% Water by Gravimetry	%	102.3	4.08	44.95	41.43	47.28	1.50	n/a	n/a	n/a
5961003013		% Water by Density	%	102.3	4.08	1.55e+04	1.48e+04	1.46e+04	2.05	98.70	5.000	n/a
5961003013		IC by Acid/Coulometry	ug/g	95.00	11.30	2.40e+04	2.56e+04	2.58e+04	1.52	90.70	40.00	n/a
5961003013		F Silver - ICP-Fusion	ug/g	99.20	-1.00e-02	-2.00e+02	2.05e+02	1.61e+04	0.87	n/a	1.00e+03	n/a
5961003031		F Aluminum - ICP-Fusion	ug/g	103.2	-5.00e-02	-1.35e+02	1.50e+02	n/a	n/a	105.0	2.00e+03	n/a
5961003031		F Arsenic - ICP-Fusion	ug/g	103.2	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	98.20	1.00e+03	n/a
5961003031		F Boron - ICP-Fusion	ug/g	100.2	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	97.30	1.00e+03	n/a
5961003031		F Barium - ICP-Fusion	ug/g	104.2	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	102.0	1.00e+03	n/a
5961003031		F Beryllium - ICP-Fusion	ug/g	104.2	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	102.0	1.00e+03	n/a
5961003031		F Bismuth - ICP-Fusion	ug/g	101.6	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	102.0	2.00e+03	n/a
5961003031		F Cadmium - ICP-Fusion	ug/g	100.0	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	100.0	2.00e+03	n/a
5961003031		F Calcium - ICP-Fusion	ug/g	100.0	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	100.0	2.00e+03	n/a
5961003031		F Cerium - ICP-Fusion	ug/g	102.6	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	102.0	2.00e+03	n/a
5961003031		F Cobalt - ICP-Fusion	ug/g	104.2	-1.00e-02	-3.25e+03	3.39e+03	3.39e+03	9.44	101.0	200.0	n/a
5961003031		F Chromium - ICP-Fusion	ug/g	104.2	-1.00e-02	-3.25e+03	3.39e+03	3.39e+03	9.44	101.0	200.0	n/a
5961003031		F Copper - ICP-Fusion	ug/g	101.6	-5.00e-01	-3.00e+03	2.86e+03	3.13e+03	17.3	101.0	1.00e+04	n/a
5961003031		F Iron - ICP-Fusion	ug/g	96.40	-5.00e-01	-3.00e+03	2.86e+03	3.13e+03	17.3	101.0	1.00e+04	n/a
5961003031		F Potassium - ICP-Fusion	ug/g	100.4	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	98.40	1.00e+03	n/a
5961003031		F Lanthanum - ICP-Fusion	ug/g	101.4	-1.00e-02	-2.00e+03	< 2.05e3	n/a	n/a	97.80	200.0	n/a
5961003031		F Lithium - ICP-Fusion	ug/g	98.40	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	95.60	2.00e+03	n/a
5961003031		F Magnesium - ICP-Fusion	ug/g	98.40	-1.00e-02	-9.26e+02	880.0	943.0	11.2	95.80	200.0	n/a
5961003031		F Manganese - ICP-Fusion	ug/g	100.8	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	101.0	1.00e+03	n/a
5961003031		F Molybdenum - ICP-Fusion	ug/g	100.4	1.83e-01	1.81e+05	1.83e+05	1.82e+05	1.10	97.00	2.00e+03	n/a
5961003031		F Nickel - ICP-Fusion	ug/g	102.2	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	101.0	2.00e+03	n/a
5961003031		F Niobium - ICP-Fusion	ug/g	100.4	2.87e-01	8.58e+02	2.06e+03	1.46e+03	82.2	99.40	400.0	n/a
5961003031		F Phosphorus - ICP-Fusion	ug/g	100.6	-2.00e-01	-4.00e+03	< 4.07e3	n/a	n/a	103.0	4.00e+03	n/a
5961003031		F Selenium - ICP-Fusion	ug/g	99.40	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	99.30	2.00e+03	n/a
5961003031		F Antimony - ICP-Fusion	ug/g	95.20	-6.00e-01	-4.00e+03	4.07e+03	4.52e+03	19.7	94.40	2.00e+03	n/a
5961003031		F Strontium - ICP-Fusion	ug/g	98.80	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	95.10	1.20e+03	n/a
5961003031		F Silicon - ICP-Fusion	ug/g	96.20	1.57e-01	-1.00e+03	< 1.02e3	n/a	n/a	102.0	1.00e+03	n/a
5961003031		F Sodium - ICP-Fusion	ug/g	98.20	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	98.10	2.00e+03	n/a
5961003031		F Strontium - ICP-Fusion	ug/g	99.60	-1.00e-02	-2.00e+03	< 2.05e3	n/a	n/a	96.20	2.00e+03	n/a
5961003031		F Tantalum - ICP-Fusion	ug/g	97.60	-1.00e-02	-2.00e+03	< 2.05e3	n/a	n/a	95.60	200.0	n/a
5961003031		F Thallium - ICP-Fusion	ug/g	96.40	-2.00e-01	-4.00e+03	< 4.07e3	n/a	n/a	95.60	4.00e+03	n/a
5961003031		F Vanadium - ICP-Fusion	ug/g	95.90	-5.00e-01	-1.00e+03	< 1.02e3	n/a	n/a	91.00	1.00e+03	n/a
5961003031		F Zinc - ICP-Fusion	ug/g	100.6	-5.00e-02	-1.00e+03	< 1.02e3	n/a	n/a	99.50	1.00e+03	n/a
5961003031		F Zirconium - ICP-Fusion	ug/g	102.0	4.80e-02	1.66e+03	871.0	965.5	19.4	101.0	200.0	n/a
5961003031		F Zirconium - ICP-Fusion	ug/g	98.20	-1.00e-02	-2.00e+03	< 2.05e3	n/a	n/a	96.50	200.0	n/a
5961003031		F Zirconium - ICP-Fusion	ug/g	103.4	-1.00e-01	-2.00e+03	< 2.05e3	n/a	n/a	96.50	200.0	n/a
5961003031		F Cobalt-60 by GEA	ug/g	97.65	-4.05e-01	-1.78e+02	181.0	179.6	1.69	n/a	2.37e-01	n/a
5961003031		F Cesium-137 by GEA	ug/g	n/a	-4.21e-01	1.977	1.380	1.679	35.7	n/a	n/a	16.4
5961003031		F Europium-154 by GEA	ug/g	n/a	-3.83e-01	< 1.459	< 1.5280	n/a	n/a	n/a	1.459	n/a

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S961003031	F	Ammonium-241 by GEA	uCi/g	n/a	< 8.15e-01	3.031	< 2.99e-01	1.82	n/a	n/a	3.031	n/a
S961003031	F	Alpha of Diested Solid	uCi/g	119.5	< 3.58e-02	2.20	< 1.400	1.82	n/a	n/a	4.70e-02	8.21e-00
S961003032	A	Silver - ICP-Acid Digest	uCi/g	79.50	< 1.00e-02	15.80	1.05e-04	15.62	1.92	n/a	4.820	n/a
S961003033	A	Aluminum - ICP-Acid Digest	uCi/g	105.4	< 8.10e-02	1.05e-04	1.09e-04	1.10e-04	0.31	n/a	4.820	n/a
S961003033	A	Arsenic - ICP-Acid Digest	uCi/g	99.60	< 1.00e-01	< 48.10	< 4.92e-01	n/a	n/a	n/a	46.20	n/a
S961003033	A	Boron - ICP-Acid Digest	uCi/g	119.0	< 3.82e-01	59.70	< 92.60	76.15	43.2	n/a	24.00	n/a
S961003033	A	Barium - ICP-Acid Digest	uCi/g	97.40	< 5.00e-02	< 24.10	< 2.45e-01	n/a	n/a	n/a	24.00	n/a
S961003033	A	Beryllium - ICP-Acid Digest	uCi/g	101.4	< 5.00e-02	< 2.40	< 2.45e-01	n/a	n/a	n/a	24.00	n/a
S961003033	A	Bismuth - ICP-Acid Digest	uCi/g	95.40	< 1.00e-01	< 48.10	< 4.92e-01	n/a	n/a	n/a	46.20	n/a
S961003033	A	Calcium - ICP-Acid Digest	uCi/g	115.2	< 2.03e-01	3.23e-02	3.31e-01	32.70	2.43	n/a	46.20	n/a
S961003033	A	Cadmium - ICP-Acid Digest	uCi/g	95.80	< 5.00e-03	51.80	55.30	55.30	1.81	n/a	24.00	n/a
S961003033	A	Cerium - ICP-Acid Digest	uCi/g	98.60	< 1.00e-01	78.10	72.10	77.10	2.39	n/a	46.20	n/a
S961003033	A	Cobalt - ICP-Acid Digest	uCi/g	98.60	< 2.00e-02	< 9.20	< 9.20	n/a	n/a	n/a	9.620	n/a
S961003033	A	Chromium - ICP-Acid Digest	uCi/g	96.60	< 1.00e-02	3.16e-03	2.85e-03	3.00e-03	10.3	n/a	4.820	n/a
S961003033	A	Copper - ICP-Acid Digest	uCi/g	97.40	< 1.00e-02	19.30	< 1.40e-03	20.00	7.03	n/a	4.820	n/a
S961003033	A	Iron - ICP-Acid Digest	uCi/g	96.00	< 1.00e-02	1.35e-03	1.35e-03	1.49	11.1	n/a	24.00	n/a
S961003033	A	Lithium - ICP-Acid Digest	uCi/g	99.00	< 5.00e-01	< 48.10	< 4.92e-01	42.85	7.27	n/a	24.00	n/a
S961003033	A	Lanthanum - ICP-Acid Digest	uCi/g	100.2	< 1.00e-02	< 4.810	< 4.92e-01	n/a	n/a	n/a	4.820	n/a
S961003033	A	Magnesium - ICP-Acid Digest	uCi/g	99.80	< 1.00e-02	9.13e-02	8.71e-01	86.0	10.4	n/a	46.20	n/a
S961003033	A	Manganese - ICP-Acid Digest	uCi/g	95.00	< 1.00e-02	35.90	37.20	36.35	3.76	n/a	24.00	n/a
S961003033	A	Molybdenum - ICP-Acid Digest	uCi/g	95.20	< 5.00e-02	1.35e-02	1.89e-03	1.77e-02	1.74	n/a	46.20	n/a
S961003033	A	Nickel - ICP-Acid Digest	uCi/g	100.4	< 1.00e-01	1.080	1.71e-05	1.71e-05	8.91	n/a	46.20	n/a
S961003033	A	Neodymium - ICP-Acid Digest	uCi/g	99.20	< 2.00e-02	2.50e-02	300.0	297.0	2.01	n/a	9.620	n/a
S961003033	A	Niobium - ICP-Acid Digest	uCi/g	92.40	< 2.00e-01	1.50e-02	1.89e-03	1.77e-03	9.61	n/a	46.20	n/a
S961003033	A	Phosphorus - ICP-Acid Digest	uCi/g	92.40	< 1.00e-01	3.40e-03	3.59e-01	3.59e-01	2.85	n/a	46.20	n/a
S961003033	A	Lead - ICP-Acid Digest	uCi/g	93.80	< 1.00e-01	4.20e-03	4.15e-03	4.21e-03	2.85	n/a	46.20	n/a
S961003033	A	Sulfur - ICP-Acid Digest	uCi/g	88.40	< 5.00e-02	< 28.90	< 2.95e-01	n/a	n/a	n/a	28.80	n/a
S961003033	A	Selenium - ICP-Acid Digest	uCi/g	94.00	< 1.00e-01	< 48.10	< 4.92e-01	n/a	n/a	n/a	46.20	n/a
S961003033	A	Silicon - ICP-Acid Digest	uCi/g	246.0	< 2.11e-01	1.51e-02	1.17e-01	149.0	2.68	n/a	24.00	n/a
S961003033	A	Samarium - ICP-Acid Digest	uCi/g	98.40	< 1.00e-02	< 48.10	< 4.92e-01	n/a	n/a	n/a	46.20	n/a
S961003033	A	Strontium - ICP-Acid Digest	uCi/g	96.80	< 1.00e-02	< 4.810	< 4.92e-01	n/a	n/a	n/a	46.20	n/a
S961003033	A	Titanium - ICP-Acid Digest	uCi/g	92.20	< 1.00e-02	< 4.810	< 4.92e-01	n/a	n/a	n/a	46.20	n/a
S961003033	A	Thallium - ICP-Acid Digest	uCi/g	91.80	< 2.00e-01	< 96.20	< 9.84e-01	n/a	n/a	n/a	96.20	n/a
S961003033	A	Uranium - ICP-Acid Digest	uCi/g	99.00	< 5.00e-01	8.10e-02	7.26e-01	748.0	10.3	n/a	24.00	n/a
S961003033	A	Vanadium - ICP-Acid Digest	uCi/g	96.40	< 5.00e-02	< 24.10	< 2.46e-01	43.40	5.02	n/a	4.820	n/a
S961003033	A	Zinc - ICP-Acid Digest	uCi/g	93.40	< 1.00e-02	93.30	84.70	89.00	9.68	n/a	4.820	n/a
S961003033	A	Zirconium - ICP-Acid Digest	uCi/g	95.76	< 3.00e-02	54.17	< 5.15e-01	n/a	n/a	n/a	70.16	n/a
S961003045	F	Fluoride - IC-Dioxin 4000/4500	uCi/g	96.71	< 1.90e-02	3.09e-03	3.07e-03	3.07e-03	1.70	n/a	46.20	n/a
S961003045	F	Chloride - IC-Dioxin 4000/4500	uCi/g	96.69	< 1.07e-01	5.78e-04	5.39e-04	5.59e-04	6.98	n/a	445.8	n/a
S961003045	F	Nitrite - IC - Dioxin 4000/4500	uCi/g	99.49	< 1.26e-01	< 5.28e-02	< 5.28e-02	n/a	n/a	n/a	523.0	n/a
S961003045	F	Bromide by Ion Chromatograph	uCi/g	96.30	< 1.45e-01	1.40e-05	1.48e-05	1.48e-05	n/a	n/a	583.0	n/a
S961003045	F	Nitrate by IC-Dioxin 4000/4500	uCi/g	97.61	< 1.19e-01	4.40e-03	4.80e-03	4.70e-03	2.66	n/a	595.4	n/a
S961003045	F	Phosphate by IC-Dioxin 4000/4500	uCi/g	98.42	< 1.36e-01	1.26e-04	1.19e-04	1.22e-04	5.71	n/a	566.2	n/a
S961003045	F	Sulfate by IC-Dioxin 4000/4500	uCi/g	100.0	< 1.05e-01	1.08e-04	9.91e-03	1.03e-04	8.59	n/a	437.4	n/a

Table 1. Data Summary Table
U-106 (P)

CORE NUMBER: 148
SEGMENT #: 4

SEGMENT PORTION: U Upper Half of Segment

Sample#	R #	Analysis	Unit	Standard #	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Error
89861003014		Cyanide Water Distillation	ug/g	93.00	<1.10e-02	29.20	26.40	27.80	10.1	n/a	2.750	n/a
89861003014		DSC Exotherm Dry Calculated	Joules/g Dry	102.4	n/a	5.15e+02	4.69.0	4.97.0	19.3	n/a	n/a	n/a
89861003014		DSC Exotherm on Perkin Elmer	Joules/g	99.78	n/a	2.99e+02	2.64.0	2.72.7	19.3	n/a	n/a	n/a
89861003014		% Water by IGA on Perkin Elmer	%g	102.3	4.100	6.75e-01	6.53.77	6.51.4	6.07	n/a	n/a	n/a
89861003014		IC by Acid/Coulometry	ug/g	102.3	4.100	1.21e-04	1.28e-04	1.25e-04	6.40	n/a	5.000	n/a
89861003014		IC by Persulfate/Coulometry	ug/g	95.00	<1.00e-02	1.99e+02	1.97e-02	2.57e+04	9.34	n/a	40.000	n/a
89861003032		F Silver - ICP-Fusion	ug/g	98.20	<5.00e-02	1.29e+03	<1.97e2	1.27e+04	n/a	31.80	198.0	n/a
89861003032		F Aluminum - ICP-Fusion	ug/g	103.4	<1.00e-01	1.99e+03	<1.97e3	1.27e+04	n/a	84.00	992.0	n/a
89861003032		F Arsenic - ICP-Fusion	ug/g	100.1	<5.00e-02	<9.95e+02	<9.84e2	n/a	n/a	n/a	1.98e+03	n/a
89861003032		F Boron - ICP-Fusion	ug/g	100.2	<5.00e-02	<9.95e+02	<9.84e2	n/a	n/a	n/a	992.0	n/a
89861003032		F Barium - ICP-Fusion	ug/g	104.2	<5.00e-03	<9.99.30	<9.84e1	n/a	n/a	97.70	992.0	n/a
89861003032		F Beryllium - ICP-Fusion	ug/g	101.8	<1.00e-01	<9.99.03	<1.97e3	n/a	n/a	102.0	992.0	n/a
89861003032		F Bismuth - ICP-Fusion	ug/g	101.8	<1.00e-01	<1.97e3	<1.97e3	n/a	n/a	98.40	1.98e+03	n/a
89861003032		F Calcium - ICP-Fusion	ug/g	100.0	<5.00e-03	<9.99e+03	<9.84e3	n/a	n/a	103.0	1.98e+03	n/a
89861003032		F Cadmium - ICP-Fusion	ug/g	100.0	<5.00e-03	<9.99.03	<9.84e1	n/a	n/a	99.30	992.0	n/a
89861003032		F Cerium - ICP-Fusion	ug/g	102.6	<1.00e-01	<1.99e+03	<1.97e3	n/a	n/a	102.0	1.98e+03	n/a
89861003032		F Cobalt - ICP-Fusion	ug/g	100.1	<2.00e-02	<3.97e+02	<3.94e2	n/a	n/a	99.80	397.0	n/a
89861003032		F Chromium - ICP-Fusion	ug/g	102.2	<1.00e-02	<1.95e+03	<3.10e+03	3.08e+03	1.63	n/a	198.0	n/a
89861003032		F Copper - ICP-Fusion	ug/g	104.1	<1.00e-02	<1.99e+02	<1.97e2	n/a	n/a	103.0	198.0	n/a
89861003032		F Iron - ICP-Fusion	ug/g	101.6	<5.00e-02	<3.14e+03	<3.03e+03	3.04e+03	0.33	n/a	992.0	n/a
89861003032		F Potassium - ICP-Fusion	ug/g	96.40	<5.00e-01	<5.69e+06	n/a	n/a	n/a	n/a	9.97e+03	n/a
89861003032		F Lithium - ICP-Fusion	ug/g	100.1	<5.00e-02	<9.95e+02	<9.84e2	n/a	n/a	99.60	992.0	n/a
89861003032		F Lanthanum - ICP-Fusion	ug/g	100.4	<1.00e-02	<1.99e+02	<1.97e2	n/a	n/a	99.70	198.0	n/a
89861003032		F Magnesium - ICP-Fusion	ug/g	98.40	<1.00e-01	<1.99e+03	<1.97e3	n/a	n/a	97.00	1.98e+03	n/a
89861003032		F Manganese - ICP-Fusion	ug/g	98.80	<1.00e-02	8.71e+02	876.0	873.5	0.57	95.20	198.0	n/a
89861003032		F Molybdenum - ICP-Fusion	ug/g	100.8	<5.00e-02	<9.95e+02	<9.84e2	n/a	n/a	100.0	992.0	n/a
89861003032		F Niobium - ICP-Fusion	ug/g	100.4	1.83e-01	1.83e+05	1.76e+05	1.80e+05	3.90	115.0	1.98e+03	n/a
89861003032		F Neodymium - ICP-Fusion	ug/g	102.2	<1.00e-01	<1.99e+03	<1.97e3	n/a	n/a	101.0	1.98e+03	n/a
89861003032		F Nickel - ICP-Fusion	ug/g	100.2	2.87e-01	1.10e+03	1.13e+03	1.12e+03	2.69	98.90	397.0	n/a
89861003032		F Phosphorus - ICP-Fusion	ug/g	100.6	<2.00e-01	<3.97e+03	<3.94e3	n/a	n/a	112.0	3.97e+03	n/a
89861003032		F Lead - ICP-Fusion	ug/g	99.40	<1.00e-01	<1.99e+03	<1.97e3	n/a	n/a	98.40	1.98e+03	n/a
89861003032		F Sulfur - ICP-Fusion	ug/g	98.80	<1.00e-01	<3.62e+03	3.57e+03	3.60e+03	1.39	98.20	1.98e+03	n/a
89861003032		F Antimony - ICP-Fusion	ug/g	95.20	<6.00e-02	<1.19e+03	<1.18e3	n/a	n/a	93.90	1.19e+03	n/a
89861003032		F Selenium - ICP-Fusion	ug/g	98.80	<1.00e-01	<9.99e+03	<9.84e2	n/a	n/a	98.40	1.98e+03	n/a
89861003032		F Strontium - ICP-Fusion	ug/g	96.20	1.57e-01	<9.95e+02	<1.97e2	n/a	n/a	99.60	992.0	n/a
89861003032		F Samarium - ICP-Fusion	ug/g	99.60	<1.00e-01	<1.99e+03	<1.97e3	n/a	n/a	95.30	1.98e+03	n/a
89861003032		F Strontium - ICP-Fusion	ug/g	99.60	<1.00e-02	<1.99e+02	<1.97e2	n/a	n/a	98.10	198.0	n/a
89861003032		F Thallium - ICP-Fusion	ug/g	97.60	<1.00e-02	<1.99e+02	<1.97e2	n/a	n/a	97.00	198.0	n/a
89861003032		F Thallium - ICP-Fusion	ug/g	96.40	<2.00e-01	<3.97e+03	<3.94e3	n/a	n/a	95.70	3.97e+03	n/a
89861003032		F Uranium - ICP-Fusion	ug/g	95.90	<5.00e-01	<9.93e+03	<9.84e3	n/a	n/a	90.10	9.92e+03	n/a
89861003032		F Vanadium - ICP-Fusion	ug/g	100.6	<5.00e-02	<9.93e+02	<9.84e2	n/a	n/a	99.10	992.0	n/a
89861003032		F Zinc - ICP-Fusion	ug/g	102.0	<4.80e-02	<1.34e+03	<1.79e.0	1.07e+03	50.7	99.70	198.0	n/a
89861003032		F Zirconium - ICP-Fusion	ug/g	96.40	<1.00e-02	<1.99e+02	<1.97e2	n/a	n/a	96.40	198.0	n/a

WHC-SD-WM-DP-191, REV. I

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S951003032	F	Cobalt-60 by GEA	uCi/g	103.4	<1.45e-01	<2.13e+01	<2.63e+1	17.5	17.5	17.5	2.19e-01	17.5
S951003032	F	Cesium-137 by GEA	uCi/g	97.65	<4.05e-01	1.89e+02	189.0	185.8	3.23	17.5	17.5	17.5
S951003032	F	Europium-154 by GEA	uCi/g	17.6	<2.81e-01	1.64e+01	1.64e+1	1.648	1.21	17.5	17.5	24.2
S951003032	F	Europium-155 by GEA	uCi/g	17.6	<2.81e-01	1.64e+01	1.64e+1	1.648	1.21	17.5	17.5	24.2
S951003032	F	Europium-241 by GEA	uCi/g	17.6	<2.81e-01	1.64e+01	1.64e+1	1.648	1.21	17.5	17.5	24.2
S951003032	F	Strontium-90 by GEA	uCi/g	83.10	<1.00e-02	1.74e+02	21.50	19.15	21.4	98.80	4.86e+01	17.5
S951003039	A	Aluminum - ICP-Acid Digest	uCi/g	100.4	9.30e-02	1.43e+04	1.03e+4	1.48e+04	19.5	110.8	20.20	17.5
S951003039	A	Arsenic - ICP-Acid Digest	uCi/g	100.2	5.23e-01	4.92e+03	4.92e+3	60.90	37.8	100.4	30.20	17.5
S951003039	A	Boron - ICP-Acid Digest	uCi/g	98.00	5.00e-02	2.01e+03	2.01e+3	60.90	37.8	99.40	30.20	17.5
S951003039	A	Beryllium - ICP-Acid Digest	uCi/g	101.2	5.00e-02	2.01e+03	2.01e+3	60.90	37.8	99.40	30.20	17.5
S951003039	A	Bismuth - ICP-Acid Digest	uCi/g	97.00	<1.00e-01	4.02e+03	4.02e+3	388.6	18.0	99.40	40.20	17.5
S951003039	A	Calcium - ICP-Acid Digest	uCi/g	100.0	2.32e-01	3.74e+02	1.19e+3	67.20	18.2	97.80	2.020	17.5
S951003039	A	Caesium - ICP-Acid Digest	uCi/g	96.20	5.00e-02	4.02e+03	4.02e+3	67.20	18.2	97.80	2.020	17.5
S951003039	A	Cadmium - ICP-Acid Digest	uCi/g	99.80	<1.00e-01	8.00e+03	8.00e+3	86.55	19.5	101.2	40.20	17.5
S951003039	A	Cobalt - ICP-Acid Digest	uCi/g	97.40	<1.00e-02	3.51e+03	4.06e+3	3.48e+3	20.4	95.40	8.020	17.5
S951003039	A	Copper - ICP-Acid Digest	uCi/g	97.80	4.50e-02	3.57e+03	4.21e+3	22.90	19.2	97.40	4.020	17.5
S951003039	A	Europium - ICP-Acid Digest	uCi/g	99.40	5.00e-01	1.38e+03	1.49e+3	1.53e+03	19.2	109.0	20.20	17.5
S951003039	A	Lithium - ICP-Acid Digest	uCi/g	100.2	<1.00e-02	5.28e+03	5.28e+3	51.00	20.4	103.8	40.20	17.5
S951003039	A	Magnesium - ICP-Acid Digest	uCi/g	93.80	<1.00e-01	4.02e+03	4.02e+3	51.00	20.4	103.8	40.20	17.5
S951003039	A	Manganese - ICP-Acid Digest	uCi/g	95.40	<1.00e-02	9.95e+02	1.22e+03	1.11e+03	20.9	97.00	4.020	17.5
S951003039	A	Mercury - ICP-Acid Digest	uCi/g	100.0	<5.00e-02	1.32e+03	1.32e+3	1.90e+03	22.0	60.0	40.20	17.5
S951003039	A	Sodium - ICP-Acid Digest	uCi/g	101.2	8.59e-01	1.32e+03	1.32e+3	1.67e+03	21.9	109.4	40.20	17.5
S951003039	A	Nickel - ICP-Acid Digest	uCi/g	99.40	<2.00e-02	3.30e+02	3.91e+02	367.5	16.9	99.40	8.040	17.5
S951003039	A	Lead - ICP-Acid Digest	uCi/g	102.4	<1.00e-01	3.52e+02	4.70e+02	4.26e+02	20.2	95.40	40.20	17.5
S951003039	A	Phosphorus - ICP-Acid Digest	uCi/g	99.60	<1.00e-01	3.96e+03	4.71e+03	4.34e+03	17.5	101.0	40.20	17.5
S951003039	A	Silver - ICP-Acid Digest	uCi/g	92.60	<1.00e-01	2.61e+02	2.61e+2	174.5	23.5	95.40	40.20	17.5
S951003039	A	Antimony - ICP-Acid Digest	uCi/g	94.80	<1.00e-01	1.54e+02	1.95e+02	174.5	23.5	95.40	40.20	17.5
S951003039	A	Selenium - ICP-Acid Digest	uCi/g	99.40	<1.00e-01	4.02e+03	4.02e+3	174.5	23.5	95.40	40.20	17.5
S951003039	A	Silicon - ICP-Acid Digest	uCi/g	97.60	<1.00e-01	4.02e+03	4.02e+3	174.5	23.5	95.40	40.20	17.5
S951003039	A	Samarium - ICP-Acid Digest	uCi/g	97.60	<1.00e-01	4.02e+03	4.02e+3	174.5	23.5	95.40	40.20	17.5
S951003039	A	Strontium - ICP-Acid Digest	uCi/g	97.40	<1.00e-02	4.02e+03	4.02e+3	174.5	23.5	95.40	40.20	17.5
S951003039	A	Titanium - ICP-Acid Digest	uCi/g	94.60	<2.00e-01	8.00e+03	8.00e+3	1.08e+04	18.4	102.0	20.20	17.5
S951003039	A	Thallium - ICP-Acid Digest	uCi/g	100.0	<5.00e-01	2.01e+03	2.01e+3	1.08e+04	18.4	102.0	20.20	17.5
S951003039	A	Uranium - ICP-Acid Digest	uCi/g	97.80	<5.00e-02	5.71e+02	6.01e+02	56.30	13.5	96.80	4.020	17.5
S951003039	A	Vanadium - ICP-Acid Digest	uCi/g	94.60	1.80e-02	1.02e+02	1.20e+02	110.5	17.2	100.8	4.020	17.5
S951003039	A	Zinc - ICP-Acid Digest	uCi/g	97.80	<1.00e-02	5.71e+02	6.01e+02	56.30	13.5	96.80	4.020	17.5
S951003046	W	Fluoride - IC-Dioxex 4000/4500	uCi/g	97.80	<1.70e-02	5.71e+02	6.01e+02	56.30	13.5	96.80	4.020	17.5
S951003046	W	Chloride - IC-Dioxex 4000/4500	uCi/g	98.61	<1.70e-02	5.71e+02	6.01e+02	56.30	13.5	96.80	4.020	17.5
S951003046	W	Nitrite - IC-Dioxex 4000/4500	uCi/g	98.61	<1.70e-01	5.71e+02	6.01e+02	56.30	13.5	96.80	4.020	17.5
S951003046	W	Nitrate by Ion Chromatograph	uCi/g	98.47	<1.24e-01	5.71e+02	6.01e+02	56.30	13.5	96.80	4.020	17.5
S951003046	W	Arbide by IC-Dioxex 4000/4500	uCi/g	100.2	<1.00e-01	1.60e+03	1.60e+3	1.36e+03	2.90	90.81	56.6	17.5
S951003046	W	Phosphate by IC-Dioxex 4000/4500	uCi/g	102.2	<1.00e-01	7.15e+03	7.15e+3	7.44e+03	7.53	98.72	40.20	17.5
S951003046	W	Sulfate by IC-Dioxex 4000/4500	uCi/g	99.48	<1.35e-01	1.00e+04	1.00e+4	1.00e+04	0.00	99.52	54.8	17.5
S951003046	W	Urate by IC-Dioxex 4000/4500	uCi/g	102.1	<1.05e-01	1.07e+04	1.06e+4	1.06e+04	0.94	101.5	439.1	17.5

WHC-SD-WM-DP-191, REV. I

L Lower Half of Segment: L Lower Half of Segment

Sample#	RA#	Analyte	Unit	Standard %	Blank	Result	Duplicates	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S961002976		Bulk Density of Sample	g/mL	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.00e+03	n/a
S961003015		Candle Water Distillation	ug/g	93.00	<1.10e-02	27.20	25.00	26.35	4.90	94.00	1.550	n/a
S961003015		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	8.12e+02	640.5	880.2	2.72	n/a	n/a	n/a
S961003015		DSC Exotherm on Perkin Elmer	Joules/g	102.4	n/a	4.04e+02	47.8	477.8	2.76	n/a	n/a	n/a
S961003015		X Water by TGA on Perkin Elmer	%	99.78	n/a	1.45e+01	43.89	139.04	2.58	n/a	5.000	n/a
S961003015		TIC by Acid/Coulometry	ug/g	99.32	1.00e+01	1.47e+02	1.37e+04	1.39e+04	2.58	n/a	40.00	n/a
S961003015		ICD by Persulfate/Coulometry	ug/g	99.32	3.800	2.55e+02	2.05e+04	2.52e+04	1.98	n/a	206.0	n/a
S961003033	F	Silver - ICP-Fusion	ug/g	98.20	<1.00e-02	<2.06e+02	<2.04e+02	1.22e+02	4.72	n/a	1.03e+03	n/a
S961003033	F	Aluminum - ICP-Fusion	ug/g	98.20	<1.00e-02	<2.06e+02	<2.04e+02	1.22e+02	4.72	n/a	1.03e+03	n/a
S961003033	F	Arsenic - ICP-Fusion	ug/g	98.20	<1.00e-02	<2.06e+02	<2.04e+02	1.22e+02	4.72	n/a	1.03e+03	n/a
S961003033	F	Boron - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Beryllium - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Beryllium - ICP-Fusion	ug/g	104.5	<1.00e-01	<2.06e+02	<2.04e+02	n/a	n/a	98.50	2.06e+03	n/a
S961003033	F	Bismuth - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Calcium - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Calcium - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Cadmium - ICP-Fusion	ug/g	100.2	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Cobalt - ICP-Fusion	ug/g	102.6	<1.00e-01	<2.06e+02	<2.04e+02	n/a	n/a	99.20	1.03e+03	n/a
S961003033	F	Copper - ICP-Fusion	ug/g	102.6	<1.00e-01	<2.06e+02	<2.04e+02	n/a	n/a	99.20	1.03e+03	n/a
S961003033	F	Copper - ICP-Fusion	ug/g	104.2	<1.00e-02	<2.06e+02	<2.04e+02	3.05e+03	1.97	100.0	206.0	n/a
S961003033	F	Iron - ICP-Fusion	ug/g	104.2	<1.00e-02	<2.06e+02	<2.04e+02	3.05e+03	1.97	100.0	206.0	n/a
S961003033	F	Potassium - ICP-Fusion	ug/g	101.6	<5.00e-02	<2.06e+02	<2.04e+02	2.94e+03	1.70	99.70	1.03e+03	n/a
S961003033	F	Lanthanum - ICP-Fusion	ug/g	96.40	<5.00e-01	6.09e+06	n/a	n/a	n/a	n/a	1.03e+04	n/a
S961003033	F	Lithium - ICP-Fusion	ug/g	100.4	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.20	1.03e+03	n/a
S961003033	F	Lithium - ICP-Fusion	ug/g	101.4	<1.00e-02	<2.06e+02	<2.04e+02	n/a	n/a	98.80	2.06e+03	n/a
S961003033	F	Magnesium - ICP-Fusion	ug/g	98.40	<1.00e-02	<2.06e+02	<2.04e+02	n/a	n/a	98.20	2.06e+03	n/a
S961003033	F	Manganese - ICP-Fusion	ug/g	98.80	<1.00e-02	<2.06e+02	<2.04e+02	n/a	n/a	98.20	2.06e+03	n/a
S961003033	F	Molybdenum - ICP-Fusion	ug/g	100.8	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	99.90	1.03e+03	n/a
S961003033	F	Nickel - ICP-Fusion	ug/g	100.4	<1.83e-01	1.90e+05	1.83e+05	1.86e+05	3.75	84.80	2.06e+03	n/a
S961003033	F	Niobium - ICP-Fusion	ug/g	100.2	<1.00e-01	<2.06e+02	<2.04e+02	n/a	n/a	101.0	2.06e+03	n/a
S961003033	F	Sodium - ICP-Fusion	ug/g	100.4	<2.87e-01	6.31e+02	1.40e+03	1.02e+03	75.7	99.40	414.0	n/a
S961003033	F	Phosphorus - ICP-Fusion	ug/g	100.6	<2.00e-01	<4.12e+03	<4.08e+03	n/a	n/a	115.0	4.14e+03	n/a
S961003033	F	Lead - ICP-Fusion	ug/g	99.40	<1.00e-01	<2.06e+02	<2.04e+02	n/a	n/a	98.60	2.06e+03	n/a
S961003033	F	Sulfur - ICP-Fusion	ug/g	98.80	<1.00e-01	<4.23e+03	<4.19e+03	4.46e+03	10.5	94.60	2.06e+03	n/a
S961003033	F	Antimony - ICP-Fusion	ug/g	95.20	<5.00e-02	<1.24e+03	<1.22e+03	n/a	n/a	99.40	1.03e+03	n/a
S961003033	F	Selenium - ICP-Fusion	ug/g	98.80	<1.00e-01	<2.06e+02	<2.04e+02	n/a	n/a	100.0	2.06e+03	n/a
S961003033	F	Silicon - ICP-Fusion	ug/g	96.20	1.57e-01	<1.03e+03	<1.02e+03	n/a	n/a	97.90	1.03e+03	n/a
S961003033	F	Strontium - ICP-Fusion	ug/g	98.20	<1.00e-02	<2.06e+02	<2.04e+02	n/a	n/a	95.00	2.06e+03	n/a
S961003033	F	Strontium - ICP-Fusion	ug/g	99.60	<1.00e-02	<2.06e+02	<2.04e+02	n/a	n/a	96.30	2.06e+03	n/a
S961003033	F	Titanium - ICP-Fusion	ug/g	97.60	<1.00e-01	<4.12e+03	<4.08e+03	n/a	n/a	95.30	4.14e+03	n/a
S961003033	F	Thallium - ICP-Fusion	ug/g	96.40	<2.00e-01	<4.12e+03	<4.08e+03	n/a	n/a	99.20	1.03e+03	n/a
S961003033	F	Uranium - ICP-Fusion	ug/g	95.90	<5.00e-01	<1.03e+04	<1.02e+04	n/a	n/a	99.20	1.03e+03	n/a
S961003033	F	Vanadium - ICP-Fusion	ug/g	100.6	<5.00e-02	<1.03e+03	<1.02e+03	n/a	n/a	8.61	206.0	n/a
S961003033	F	Zinc - ICP-Fusion	ug/g	102.0	<4.80e-02	<1.00e+03	<1.09e+03	1.04e+03	8.61	99.90	206.0	n/a
S961003033	F	Zirconium - ICP-Fusion	ug/g	98.20	<1.00e-02	<2.06e+02	<2.04e+02	n/a	n/a	96.20	206.0	n/a
S961003033	F	Cobalt-137 by GEA	uc1/g	103.4	<1.46e-01	<1.42e-01	<1.42e-01	n/a	n/a	n/a	1.42e-01	n/a
S961003033	F	Cesium-137 by GEA	uc1/g	97.65	<4.05e-01	1.67e-02	1.76e-02	171.7	5.25	n/a	n/a	1.08
S961003033	F	Europium-154 by GEA	uc1/g	n/a	<4.21e-01	1.362	1.270	1.316	6.84	n/a	24.2	n/a
S961003033	F	Europium-155 by GEA	uc1/g	n/a	<4.83e-01	<1.158	<1.190	n/a	n/a	n/a	1.158	n/a

WHO-SD-WM-DP-191, REV. I

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S957003033	F	Amplidion-241 by GEA	uCi/g	n/a	<8.18e-02	2.375	<2.36e0	1.695	2.95	99.74	2.375	n/a
S957003033	F	Alpha of digested Solid	uCi/g	119.5	<3.55e-02	1.670	1.720	1.695	2.95	99.74	2.375	9.23e-00
S957003040	A	Silver - ICP-Acid Digest	ug/g	83.10	<1.00e-02	17.70	17.20	17.45	5.97	88.99	4.80	n/a
S957003040	A	Aluminum - ICP-Acid Digest	ug/g	104.4	<9.30e-02	1.29e+04	1.26e+04	1.26e+04	3.95	86.40	20.20	n/a
S957003040	A	Arsenic - ICP-Acid Digest	ug/g	100.2	<1.00e-01	<3.87e0	<3.87e0	1.26e+04	1.26e+04	100.2	20.20	n/a
S957003040	A	Boron - ICP-Acid Digest	ug/g	121.6	<5.23e-01	59.70	60.80	60.25	1.83	107.2	20.20	n/a
S957003040	A	Barium - ICP-Acid Digest	ug/g	98.01	<5.00e-02	2.020	<1.94e0	1.78	178	100.4	20.20	n/a
S957003040	A	Beryllium - ICP-Acid Digest	ug/g	101.2	<5.00e-02	2.020	<1.94e0	1.78	178	100.4	20.20	n/a
S957003040	A	Bismuth - ICP-Acid Digest	ug/g	97.00	<1.00e-01	<40.40	<3.87e0	3.49	3.49	99.74	40.40	n/a
S957003040	A	Calcium - ICP-Acid Digest	ug/g	100.1	<2.36e-01	3.55e+02	3.47e0	3.51	95.80	95.80	40.40	n/a
S957003040	A	Cadmium - ICP-Acid Digest	ug/g	96.20	<5.00e-03	58.40	56.50	57.45	3.31	95.80	20.20	n/a
S957003040	A	Cerium - ICP-Acid Digest	ug/g	99.80	<1.00e-01	78.00	74.80	76.40	4.19	107.0	40.40	n/a
S957003040	A	Cobalt - ICP-Acid Digest	ug/g	99.80	<2.00e-02	<8.08e0	<7.75e0	3.12e+03	2.75	98.72	8.080	n/a
S957003040	A	Copper - ICP-Acid Digest	ug/g	97.40	<1.00e-02	3.15e+03	3.08e+03	3.12e+03	2.75	98.72	8.080	n/a
S957003040	A	Iron - ICP-Acid Digest	ug/g	96.80	<1.00e-02	20.50	20.40	20.45	0.60	98.20	4.040	n/a
S957003040	A	Potassium - ICP-Acid Digest	ug/g	99.40	<5.00e-01	3.16e+03	3.14e+03	3.15e+03	0.95	101.6	20.20	n/a
S957003040	A	Lead - ICP-Acid Digest	ug/g	100.2	<5.00e-02	44.50	43.70	44.10	1.81	102.4	20.20	n/a
S957003040	A	Lithium - ICP-Acid Digest	ug/g	100.4	<1.00e-02	<4.040	<3.87e0	n/a	n/a	95.80	4.040	n/a
S957003040	A	Magnesium - ICP-Acid Digest	ug/g	93.80	<1.00e-01	<40.40	<3.87e0	n/a	n/a	95.80	4.040	n/a
S957003040	A	Manganese - ICP-Acid Digest	ug/g	95.60	<1.00e-02	9.37e+02	916.0	924.6	2.29	95.80	4.040	n/a
S957003040	A	Molybdenum - ICP-Acid Digest	ug/g	100.1	<5.00e-02	36.10	36.40	36.25	1.58	101.4	20.20	n/a
S957003040	A	Sodium - ICP-Acid Digest	ug/g	130.2	<8.59e-01	1.84e+05	1.77e+05	1.80e+05	3.88	-2.140e2	40.40	n/a
S957003040	A	Neodymium - ICP-Acid Digest	ug/g	101.2	<1.00e-01	1.28e+02	126.0	127.0	1.57	103.4	40.40	n/a
S957003040	A	Nickel - ICP-Acid Digest	ug/g	99.40	<2.00e-02	3.17e+02	301.0	306.5	3.59	99.80	8.080	n/a
S957003040	A	Phosphorus - ICP-Acid Digest	ug/g	102.6	<2.00e-01	3.17e+03	2.82e+03	2.94e+03	8.49	89.40	80.80	n/a
S957003040	A	Lead - ICP-Acid Digest	ug/g	93.40	<1.00e-01	4.76e+03	361.0	364.0	1.45	95.40	40.40	n/a
S957003040	A	Antimony - ICP-Acid Digest	ug/g	92.40	<6.00e-02	<24.20	<2.32e0	4.68e+03	3.64	101.2	20.20	n/a
S957003040	A	Selenium - ICP-Acid Digest	ug/g	94.80	<1.00e-01	<40.40	<3.87e0	n/a	n/a	95.80	4.040	n/a
S957003040	A	Samarium - ICP-Acid Digest	ug/g	290.0	<1.00e-01	1.68e+02	156.0	162.0	7.41	160.8	20.20	n/a
S957003040	A	Strontium - ICP-Acid Digest	ug/g	97.60	<1.00e-02	<4.040	<3.87e0	n/a	n/a	99.40	40.40	n/a
S957003040	A	Titanium - ICP-Acid Digest	ug/g	97.40	<1.00e-02	<4.040	<3.87e0	n/a	n/a	98.40	40.40	n/a
S957003040	A	Thallium - ICP-Acid Digest	ug/g	94.40	<2.00e-01	<80.80	<7.75e0	n/a	n/a	95.40	80.80	n/a
S957003040	A	Uranium - ICP-Acid Digest	ug/g	100.1	<5.00e-01	8.95e+02	881.0	888.0	1.58	103.0	20.20	n/a
S957003040	A	Vanadium - ICP-Acid Digest	ug/g	97.80	<5.00e-02	<20.20	<1.94e0	n/a	n/a	99.00	20.20	n/a
S957003040	A	Zinc - ICP-Acid Digest	ug/g	99.00	<1.80e-02	46.10	46.60	46.35	1.08	97.60	20.20	n/a
S957003040	A	Zirconium - ICP-Acid Digest	ug/g	99.00	<1.00e-02	93.20	88.90	91.05	4.72	101.2	4.040	n/a
S957003047	F	Fluoride by Ion Chromatograph	ug/g	97.80	<1.00e-02	<55.17	<5.14e1	n/a	n/a	n/a	55.17	n/a
S957003047	F	Chloride by Ion Chromatograph	ug/g	98.61	<1.00e-02	3.04e+03	2.98e+03	3.01e+03	1.99	n/a	25.16	n/a
S957003047	F	Nitrate by Ion Chromatograph	ug/g	99.82	<1.07e-01	5.18e+04	5.15e+04	5.16e+04	0.55	n/a	42.16	n/a
S957003047	F	Bromide by Ion Chromatograph	ug/g	98.47	<1.26e-01	<5.35e+02	<5.24e2	n/a	n/a	n/a	53.7	n/a
S957003047	F	Nitrate by IC-Dionex 4000/4500	ug/g	98.48	<1.40e-01	1.52e+05	1.50e+05	1.51e+05	3.34	n/a	53.7	n/a
S957003047	F	Phosphate by IC-Dionex 4000/4500	ug/g	102.2	<1.19e-01	7.11e+03	8.33e+03	7.72e+03	15.8	n/a	53.7	n/a
S957003047	F	Sulfate by IC-Dionex 4000/4500	ug/g	99.68	<1.36e-01	1.27e+04	1.25e+04	1.26e+04	1.59	n/a	57.6	n/a
S957003047	F	Oxalate by IC-Dionex 4000/4500	ug/g	102.1	<1.05e-01	1.05e+04	1.05e+04	1.05e+04	0.00	n/a	445.6	n/a

24-sep-1996 08:11:36
A-0002-3CORE NUMBER: 148
SEGMENT #: 5Table 1. Data Summary Table
U-106 (P)

SEGMENT PORTION: U Upper Half of Segment

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicates	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S967003016		Granite Water Distillation	ug/g	96.33	<1.00e-02	20.40	23.40	22.00	13.6	85.00	1.220	n/a
S967003016		BSC Exotherm using Mattler	joules/g	105.8	n/a	3.5e+02	34.5	32.0	7.86	n/a	n/a	n/a
S967003016		ISC Exotherm Dry calculated	joules/g	105.8	n/a	4.30e+02	43.5	42.0	7.93	n/a	n/a	n/a
S967003016		Water by TGA using Mattler %	ug/g	99.92	1.00e-01	4.30e+02	38.0	38.0	12.3	n/a	5.000	n/a
S967003016		TIC by Acid/Coulometry	ug/g	93.33	5.900	4.96e+03	4.7e+03	4.58e+03	17.7	n/a	40.00	n/a
S967003016		TOC by Persulfate/Coulometry	ug/g	101.2	<1.00e-02	3.7e+03	1.1e+04	1.56e+04	14.8	n/a	40.00	n/a
S967003034		F Aluminum - ICP-Fusion	ug/g	99.20	<5.00e-02	7.30e+03	7.5e+03	7.28e+03	6.73	n/a	1.02e+03	n/a
S967003034		F Boron - ICP-Fusion	ug/g	100.0	<5.00e-02	3.7e+03	<3.0e+3	3.4e+03	n/a	n/a	1.02e+03	n/a
S967003034		F Barium - ICP-Fusion	ug/g	104.0	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Beryllium - ICP-Fusion	ug/g	105.2	<5.00e-03	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Bismuth - ICP-Fusion	ug/g	103.4	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Calcium - ICP-Fusion	ug/g	101.1	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Cadmium - ICP-Fusion	ug/g	100.8	<5.00e-03	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Cerium - ICP-Fusion	ug/g	103.8	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Cobalt - ICP-Fusion	ug/g	101.2	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Chromium - ICP-Fusion	ug/g	102.0	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Copper - ICP-Fusion	ug/g	105.0	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Iron - ICP-Fusion	ug/g	102.0	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Potassium - ICP-Fusion	ug/g	96.20	<5.00e-01	5.81e+06	n/a	n/a	n/a	n/a	1.02e+03	n/a
S967003034		F Lithium - ICP-Fusion	ug/g	101.8	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Magnesium - ICP-Fusion	ug/g	102.2	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Manganese - ICP-Fusion	ug/g	99.40	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Molybdenum - ICP-Fusion	ug/g	99.00	<5.00e-02	5.34e+02	5.68	5.41	2.59	92.30	2.03e+03	n/a
S967003034		F Sodium - ICP-Fusion	ug/g	101.0	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Neodymium - ICP-Fusion	ug/g	100.4	1.20e-01	2.22e+05	2.11e+05	2.16e+05	5.08	98.10	2.03e+03	n/a
S967003034		F Nickel - ICP-Fusion	ug/g	102.8	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Phosphorus - ICP-Fusion	ug/g	103.6	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Lead - ICP-Fusion	ug/g	100.4	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Sulfur - ICP-Fusion	ug/g	101.4	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Antimony - ICP-Fusion	ug/g	96.40	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Selenium - ICP-Fusion	ug/g	99.20	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Silicon - ICP-Fusion	ug/g	94.00	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Samarium - ICP-Fusion	ug/g	99.60	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Strontium - ICP-Fusion	ug/g	100.2	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Titanium - ICP-Fusion	ug/g	99.00	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Thallium - ICP-Fusion	ug/g	97.20	<5.00e-01	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Uranium - ICP-Fusion	ug/g	101.4	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Vanadium - ICP-Fusion	ug/g	102.2	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Zinc - ICP-Fusion	ug/g	99.40	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a
S967003034		F Zirconium - ICP-Fusion	ug/g	99.40	<5.00e-02	1.02e+03	<9.8e+2	9.8e+2	n/a	n/a	1.02e+03	n/a

WHC-SD-WM-DP-191, REV. I

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S961003034	F	Cobalt-60 by GEA	uCi/g	103.4	<1.45e-01	<9.28e-02	<1.07e-1	99.59	8.82	N/A	9.30e-02	N/A
S961003034	F	Cesium-137 by GEA	uCi/g	97.65	<4.45e-01	95.18	104.0	99.59	8.82	N/A	N/A	1.11
S961003034	F	Europium-154 by GEA	uCi/g	N/A	<4.21e-01	6.25e-01	9.30e-01	7.77e-01	39.2	N/A	N/A	26.1
S961003034	F	Europium-155 by GEA	uCi/g	N/A	<3.83e-01	<6.69e-01	<6.90e-1	N/A	N/A	N/A	6.69e-01	N/A
S961003034	F	Americium-241 by GEA	uCi/g	N/A	<8.18e-01	<1.358	<1.39e0	N/A	N/A	N/A	1.358	N/A
S961003041	A	Silver-107-Acid Digest	uCi/g	83.10	<1.00e-02	17.00	21.10	19.05	21.6	87.10	4.280	N/A
S961003041	A	Aluminum-107-Acid Digest	uCi/g	100.4	<9.30e-02	6.39e+03	7.65e+03	7.02e+03	17.2	-8.16e1	4.280	N/A
S961003041	A	Arsenic-107-Acid Digest	uCi/g	100.2	<1.00e-02	<4.280	<4.63e1	N/A	N/A	N/A	4.280	N/A
S961003041	A	Boron-107-Acid Digest	uCi/g	121.6	<5.23e-01	51.30	60.60	55.25	16.6	105.6	42.80	N/A
S961003041	A	Beryllium-107-Acid Digest	uCi/g	98.00	<5.00e-02	<2.140	<2.31e1	N/A	N/A	99.50	21.40	N/A
S961003041	A	Bismuth-107-Acid Digest	uCi/g	101.2	<5.00e-03	<2.140	<2.31e1	N/A	N/A	100.0	21.40	N/A
S961003041	A	Calcium-107-Acid Digest	uCi/g	97.00	<1.00e-01	<4.280	<4.63e1	N/A	N/A	100.2	42.80	N/A
S961003041	A	Cadmium-107-Acid Digest	uCi/g	100.0	<2.36e-01	1.87e+02	192.0	171.9	29.1	95.80	2.140	N/A
S961003041	A	Cerium-107-Acid Digest	uCi/g	96.20	<5.00e-03	28.60	32.00	31.50	17.3	97.60	2.140	N/A
S961003041	A	Cobalt-107-Acid Digest	uCi/g	99.80	<1.00e-01	<4.280	<4.63e1	N/A	N/A	103.2	42.80	N/A
S961003041	A	Chromium-107-Acid Digest	uCi/g	97.40	<1.00e-02	8.570	29.60	N/A	N/A	101.4	8.560	N/A
S961003041	A	Copper-107-Acid Digest	uCi/g	96.80	<1.00e-02	1.31e+03	1.57e+03	1.44e+03	18.1	32.60	4.280	N/A
S961003041	A	Iron-107-Acid Digest	uCi/g	97.80	6.50e-02	6.53e+03	1.97e+03	1.80e+03	18.9	94.60	21.40	N/A
S961003041	A	Lanthanum-107-Acid Digest	uCi/g	100.2	<5.00e-02	<2.140	<2.31e1	753.0	28.1	98.40	21.40	N/A
S961003041	A	Lithium-107-Acid Digest	uCi/g	100.4	<1.00e-02	<4.280	<4.63e1	N/A	N/A	104.8	42.80	N/A
S961003041	A	Magnesium-107-Acid Digest	uCi/g	93.80	<1.00e-01	<4.280	<4.63e1	N/A	N/A	94.80	42.80	N/A
S961003041	A	Manganese-107-Acid Digest	uCi/g	95.60	<1.00e-02	4.90e+02	592.0	541.0	18.9	74.00	4.280	N/A
S961003041	A	Molybdenum-107-Acid Digest	uCi/g	100.0	<5.00e-02	<2.140	<2.31e1	N/A	N/A	102.4	21.40	N/A
S961003041	A	Sodium-107-Acid Digest	uCi/g	130.2	8.59e-01	1.81e+05	2.22e+05	2.02e+05	29.3	3.24e+03	4.280	N/A
S961003041	A	Neodymium-107-Acid Digest	uCi/g	101.2	<1.00e-01	55.90	67.80	61.85	19.2	100.6	42.80	N/A
S961003041	A	Nickel-107-Acid Digest	uCi/g	99.40	<2.00e-02	1.57e+02	187.0	172.0	17.2	95.46	8.560	N/A
S961003041	A	Phosphorus-107-Acid Digest	uCi/g	103.6	<1.00e-01	1.77e+03	2.20e+03	1.98e+03	21.9	155.2	8.560	N/A
S961003041	A	Lead-107-Acid Digest	uCi/g	92.40	<1.00e-01	1.78e+02	210.0	194.0	16.1	89.26	42.80	N/A
S961003041	A	Sulfur-107-Acid Digest	uCi/g	99.60	<1.00e-01	1.52e+03	1.88e+03	1.70e+03	21.2	21.00	42.80	N/A
S961003041	A	Antimony-107-Acid Digest	uCi/g	92.60	<1.00e-02	<2.140	<2.31e1	N/A	N/A	95.0	23.50	N/A
S961003041	A	Selenium-107-Acid Digest	uCi/g	94.80	<1.00e-01	1.19e+02	169.0	134.0	22.4	97.20	42.80	N/A
S961003041	A	Silicon-107-Acid Digest	uCi/g	290.0	1.94e-01	1.19e+02	169.0	134.0	22.4	222.0	21.40	N/A
S961003041	A	Samarium-107-Acid Digest	uCi/g	100.0	<1.00e-01	<4.280	<4.63e1	N/A	N/A	99.06	42.80	N/A
S961003041	A	Strontium-107-Acid Digest	uCi/g	97.60	<1.00e-02	<4.280	<4.63e1	N/A	N/A	98.00	42.80	N/A
S961003041	A	Titanium-107-Acid Digest	uCi/g	97.40	<1.00e-02	<4.280	<4.63e1	N/A	N/A	97.20	42.80	N/A
S961003041	A	Thallium-107-Acid Digest	uCi/g	94.60	<2.00e-01	<85.70	<9.25e1	455.0	20.9	96.40	21.40	N/A
S961003041	A	Vanadium-107-Acid Digest	uCi/g	100.0	<5.00e-01	4.08e+02	<2.140	<2.31e1	N/A	99.40	21.40	N/A
S961003041	A	Zinc-107-Acid Digest	uCi/g	94.60	1.80e-02	28.40	32.00	31.50	17.3	97.40	4.280	N/A
S961003041	A	Zirconium-107-Acid Digest	uCi/g	99.00	<1.00e-02	54.70	65.40	60.05	17.3	106.2	4.280	N/A
S961003048	W	Fluoride-IC-Dioxex 4000/4500	uCi/g	102.4	<1.30e-02	1.10e+03	1.66e+03	1.28e+03	28.9	99.26	124.2	N/A
S961003048	W	Chloride-IC-Dioxex 4000/4500	uCi/g	101.5	4.70e-02	1.48e+03	1.90e+03	1.69e+03	24.9	102.3	162.3	N/A
S961003048	W	Nitrite-IC-Dioxex 4000/4500	uCi/g	94.92	<1.07e-01	2.45e+04	3.02e+04	2.74e+04	20.8	102.3	1.02e+03	N/A
S961003048	W	Bromide by Ion Chromatograph	uCi/g	98.30	<1.26e-01	<1.20e+03	<1.25e3	N/A	N/A	99.08	1.34e+03	N/A
S961003048	W	Nitrate by IC-Dioxex 4000/4500	uCi/g	97.47	2.02e-01	3.68e+05	4.38e+05	4.03e+05	17.4	86.80	1.34e+03	N/A
S961003048	W	Phosphate-IC-Dioxex 4000/4500	uCi/g	98.17	<1.19e-01	3.77e+03	4.58e+03	4.25e+03	32.3	102.3	1.14e+03	N/A
S961003048	W	Sulfate by IC-Dioxex 4000/4500	uCi/g	97.94	<1.34e-01	4.31e+03	5.25e+03	4.77e+03	16.3	99.37	1.30e+03	N/A
S961003048	W	Oxalate by IC-Dioxex 4000/4500	uCi/g	93.36	<1.08e-01	5.33e+03	6.91e+03	6.12e+03	25.8	99.07	1.00e+03	N/A

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S961002990		Bulk Density of Sample	g/mL	n/a	n/a	1.570			n/a	n/a	5.00E-01	n/a
S961003017		BSC Exotherm using Mettler	Joules/g	105.8	n/a	46.60	49.20	47.90	5.43	n/a	n/a	n/a
S961003017		BSC Exotherm DRY Calculated	Joules/g	n/a	n/a	55.88	58.90	57.44	5.43	n/a	n/a	n/a
S961003017		% Water by TGA using Mettler	%	99.92	n/a	16.83	16.34	16.59	2.83	n/a	n/a	n/a
S961003017		TIC by Acid/Coulometry	ug/g	101.2	1.00E-01	2.01E-03	2.03E-03	2.02E-03	0.80	n/a	n/a	n/a
S961003017		TOC by Persulfate/Coulometry	ug/g	93.33	5.900	8.96E-03	8.96E-03	8.96E-03	0.22	79.50	5.000	n/a
S961003035	F	Aluminum - ICP-Fusion	ug/g	100.0	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	61.00	40.00	n/a
S961003035	F	Aluminum - ICP-Fusion	ug/g	99.20	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Boron - ICP-Fusion	ug/g	104.0	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Boron - ICP-Fusion	ug/g	100.4	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Beryllium - ICP-Fusion	ug/g	99.40	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Beryllium - ICP-Fusion	ug/g	105.2	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Bismuth - ICP-Fusion	ug/g	103.4	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Calcium - ICP-Fusion	ug/g	101.0	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Cadmium - ICP-Fusion	ug/g	100.8	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Cerium - ICP-Fusion	ug/g	103.8	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Cobalt - ICP-Fusion	ug/g	101.2	< 2.00E-02	< 3.82E-02	< 3.92E-02	< 3.92E-02	n/a	94.80	95.00	n/a
S961003035	F	Chromium - ICP-Fusion	ug/g	102.0	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Copper - ICP-Fusion	ug/g	105.0	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Iron - ICP-Fusion	ug/g	102.0	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Potassium - ICP-Fusion	ug/g	96.20	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Lanthanum - ICP-Fusion	ug/g	101.8	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Lanthanum - ICP-Fusion	ug/g	102.2	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Lithium - ICP-Fusion	ug/g	99.40	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Magnesium - ICP-Fusion	ug/g	99.10	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Manganese - ICP-Fusion	ug/g	101.0	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Molybdenum - ICP-Fusion	ug/g	101.0	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Sodium - ICP-Fusion	ug/g	100.4	< 1.00E-02	< 1.91E-02	< 1.96E-02	< 1.96E-02	n/a	94.80	95.00	n/a
S961003035	F	Neodymium - ICP-Fusion	ug/g	102.8	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Nickel - ICP-Fusion	ug/g	100.2	< 2.61E-01	< 7.98E-02	< 8.20E-02	< 8.20E-02	n/a	94.80	95.00	n/a
S961003035	F	Phosphorus - ICP-Fusion	ug/g	103.6	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Lead - ICP-Fusion	ug/g	100.4	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Lead - ICP-Fusion	ug/g	101.4	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Antimony - ICP-Fusion	ug/g	96.40	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Selenium - ICP-Fusion	ug/g	99.20	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Silicon - ICP-Fusion	ug/g	94.00	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Samarium - ICP-Fusion	ug/g	99.40	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Samarium - ICP-Fusion	ug/g	100.2	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Strontium - ICP-Fusion	ug/g	99.10	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Tantalum - ICP-Fusion	ug/g	97.20	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Thallium - ICP-Fusion	ug/g	97.20	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Uranium - ICP-Fusion	ug/g	97.20	< 1.00E-01	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Vanadium - ICP-Fusion	ug/g	101.4	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Zinc - ICP-Fusion	ug/g	102.2	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Zirconium - ICP-Fusion	ug/g	99.40	< 1.00E-02	< 1.91E-03	< 1.96E-03	< 1.96E-03	n/a	94.80	95.00	n/a
S961003035	F	Cobalt-60 by GEA	ug/g	103.4	< 1.46E-01	< 4.32E-02	< 4.32E-02	< 4.32E-02	n/a	94.80	95.00	n/a
S961003035	F	Cesium-137 by GEA	ug/g	97.65	< 4.05E-01	< 6.10E-02	< 6.10E-02	< 6.10E-02	n/a	94.80	95.00	n/a
S961003035	F	Europium-154 by GEA	ug/g	97.65	< 4.05E-01	< 6.10E-02	< 6.10E-02	< 6.10E-02	n/a	94.80	95.00	n/a
S961003035	F	Europium-155 by GEA	ug/g	97.65	< 4.05E-01	< 6.10E-02	< 6.10E-02	< 6.10E-02	n/a	94.80	95.00	n/a
S961003035	F	Americium-241 by GEA	ug/g	97.65	< 4.05E-01	< 6.10E-02	< 6.10E-02	< 6.10E-02	n/a	94.80	95.00	n/a

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S951003035	F	Alpha of Digested Solid	uCi/g	106.2	< 2.25e-03	2.22e-01	2.44e-01	2.33e-01	9.44	76.60	4.00e-03	7.10e+00
S951003036	A	Silver - ICP-Acid Digest	uCi/g	83.16	< 1.00e-02	30.50	25.50	28.20	19.1	n/a	4.900	n/a
S951003042	A	Aluminum - ICP-Acid Digest	uCi/g	100.4	9.30e-02	5.59e-03	4.28e-03	4.94e-03	26.5	n/a	4.900	n/a
S951003042	A	Arsenic - ICP-Acid Digest	uCi/g	104.2	< 1.00e-01	< 4.90	< 4.35e1	40.25	18.6	n/a	4.900	n/a
S951003042	A	Boron - ICP-Acid Digest	uCi/g	121.6	5.23e-01	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Barium - ICP-Acid Digest	uCi/g	98.00	< 5.00e-02	< 4.90	< 3.5e1	20.65	25.7	n/a	4.900	n/a
S951003042	A	Beryllium - ICP-Acid Digest	uCi/g	101.2	< 5.00e-03	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Bismuth - ICP-Acid Digest	uCi/g	97.00	< 1.00e-01	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Calcium - ICP-Acid Digest	uCi/g	103.0	2.35e-01	2.31e-02	1.80e-01	20.65	25.7	n/a	4.900	n/a
S951003042	A	Cadmium - ICP-Acid Digest	uCi/g	94.20	< 5.00e-02	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Cobalt - ICP-Acid Digest	uCi/g	99.80	< 1.00e-01	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Cerium - ICP-Acid Digest	uCi/g	97.40	< 1.00e-02	7.41e-02	2.85e-01	6.75e-01	26.2	n/a	4.900	n/a
S951003042	A	Chromium - ICP-Acid Digest	uCi/g	94.80	< 1.00e-02	9.44e-02	1.13e-01	8.05e-01	26.2	n/a	4.900	n/a
S951003042	A	Copper - ICP-Acid Digest	uCi/g	97.80	4.50e-02	5.85e-02	1.13e-01	306.0	51.2	n/a	4.900	n/a
S951003042	A	Potassium - ICP-Acid Digest	uCi/g	99.40	< 1.00e-01	1.77e-02	4.27e-01	109.9	20.2	n/a	4.900	n/a
S951003042	A	Lithium - ICP-Acid Digest	uCi/g	100.2	< 1.00e-02	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Lithium - ICP-Acid Digest	uCi/g	100.2	< 1.00e-02	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Magnesium - ICP-Acid Digest	uCi/g	93.80	< 1.00e-02	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Manganese - ICP-Acid Digest	uCi/g	95.60	< 1.00e-02	3.17e-02	2.42e-01	279.5	26.8	n/a	4.900	n/a
S951003042	A	Molybdenum - ICP-Acid Digest	uCi/g	103.0	< 5.00e-02	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Sodium - ICP-Acid Digest	uCi/g	130.2	8.59e-01	2.75e-05	2.15e-05	2.30e-05	14.8	n/a	4.900	n/a
S951003042	A	Nickel - ICP-Acid Digest	uCi/g	101.2	< 1.00e-01	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Neodymium - ICP-Acid Digest	uCi/g	99.40	< 1.00e-02	1.34e-02	6.97e-01	17.7	29.2	n/a	4.900	n/a
S951003042	A	Phosphorus - ICP-Acid Digest	uCi/g	93.40	< 1.00e-01	1.28e-02	2.25e-03	2.35e-03	6.92	n/a	4.900	n/a
S951003042	A	Lead - ICP-Acid Digest	uCi/g	93.40	< 1.00e-01	1.28e-02	2.25e-03	2.35e-03	6.92	n/a	4.900	n/a
S951003042	A	Sulfur - ICP-Acid Digest	uCi/g	99.60	< 1.00e-02	8.29e-02	6.62e-01	729.0	27.4	n/a	4.900	n/a
S951003042	A	Antimony - ICP-Acid Digest	uCi/g	92.40	< 1.00e-02	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Selenium - ICP-Acid Digest	uCi/g	94.80	< 1.00e-01	4.84e-02	3.22e-01	403.0	40.2	n/a	4.900	n/a
S951003042	A	Silicon - ICP-Acid Digest	uCi/g	200.0	1.94e-01	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Strontium - ICP-Acid Digest	uCi/g	100.0	< 1.00e-01	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Titanium - ICP-Acid Digest	uCi/g	97.60	< 1.00e-02	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Thallium - ICP-Acid Digest	uCi/g	97.40	< 1.00e-02	< 4.90	< 3.5e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Thalium - ICP-Acid Digest	uCi/g	94.60	< 1.00e-01	< 98.10	< 8.71e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Uranium - ICP-Acid Digest	uCi/g	100.0	< 5.00e-01	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Vanadium - ICP-Acid Digest	uCi/g	97.80	< 5.00e-02	< 24.50	< 2.18e1	109.9	20.2	n/a	4.900	n/a
S951003042	A	Zinc - ICP-Acid Digest	uCi/g	94.60	1.80e-02	25.60	21.10	23.35	19.3	n/a	4.900	n/a
S951003042	A	Zirconium - ICP-Acid Digest	uCi/g	99.00	< 1.00e-02	1.08e-02	63.10	840.9	26.1	n/a	4.900	n/a
S951003049	U	Fluoride - IC-Dioxin 4000/4500	uCi/g	101.4	< 3.00e-02	9.45e-02	7.05e-01	870.5	16.0	n/a	1.26e-03	n/a
S951003049	U	Chloride - IC-Dioxin 4000/4500	uCi/g	101.5	< 3.00e-02	9.45e-02	7.05e-01	870.5	16.0	n/a	1.26e-03	n/a
S951003049	U	Nitrite - IC - Dioxin 4000/4500	uCi/g	94.92	< 1.00e-01	1.52e-02	1.15e-02	1.39e-02	18.7	n/a	1.04e-03	n/a
S951003049	U	Bromide by Ion Chromatograph	uCi/g	98.36	< 1.00e-01	< 1.52e-02	< 1.52e-02	4.33e-02	16.9	n/a	1.26e-03	n/a
S951003049	U	Nitrate by IC-Dioxin 4000/4500	uCi/g	97.47	< 1.00e-01	4.69e-02	3.97e-02	4.23e-02	27.3	n/a	1.36e-03	n/a
S951003049	U	Phosphate by IC-Dioxin 4000/4500	uCi/g	98.17	< 1.00e-01	5.04e-02	3.83e-02	4.18e-02	27.3	n/a	1.36e-03	n/a
S951003049	U	Sulfate by IC-Dioxin 4000/4500	uCi/g	97.94	< 1.00e-01	1.99e-02	1.70e-02	1.85e-02	17.0	n/a	1.36e-03	n/a
S951003049	U	Oxalate by IC-Dioxin 4000/4500	uCi/g	93.36	< 1.00e-01	2.38e-02	2.05e-02	2.21e-02	14.9	n/a	1.02e-03	n/a

Table 1. Data Summary Table
U-106 (P)

CORE NUMBER: 148
SEGMENT #: Core Composite
SEGMENT PORTION: Core Composite

Sample#	R #	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Ret Limit	Count	Er %
S961003881	F	Bulk Density of Sample	g/ml			1.610			n/a	n/a	5.00e-01		n/a
S961003882	F	BSC Exotherm DRY Calculated	Joules/g DRY	n/a	n/a	535.3	535.3	535.3	n/a	n/a	n/a		n/a
S961003882	F	BSC Exotherm on Perkin Elmer	Joules/g	105.9	n/a	5.32e+02	312.3	312.3	n/a	n/a	n/a		n/a
S961003882	F	% Water by TGA on Perkin Elmer	%	99.44	n/a	3.12e+01	4.51	4.51	n/a	n/a	n/a		n/a
S961003882	F	TIC by Acid/Coulometry	ug/g	101.2	1.00e-01	1.46e+04	42.26	41.52	n/a	n/a	n/a		n/a
S961003882	F	TIC by Persulfate/Coulometry	ug/g	93.33	5.900	2.23e+04	1.13e+04	1.14e+04	n/a	n/a	5.000		n/a
S961003882	F	Uranium by Phosphorescence	ug/g	92.16	19.80	6.92e+02	2.24e+04	2.24e+04	n/a	n/a	40.00		n/a
S961003884	F	Strontium-89/90 High Level	uCi/g	3.15	1.420	1.380	571.0	552.5	18.3	99.50	1.800	1.38e+00	n/a
S961003884	F	Silver - ICP-Fusion	ug/g	91.80	1.01e-01	75.90	3.400	3.400	n/a	n/a	8.90e-01		n/a
S961003884	F	Aluminum - ICP-Fusion	ug/g	97.60	< 1.00e-02	< 2.00e+02	< 1.70e+02	65.00	35.5	n/a	200.0		n/a
S961003884	F	Arsenic - ICP-Fusion	ug/g	97.60	< 1.00e-02	< 2.00e+02	8.88e+03	1.07e+04	34.6	96.80	2.00e-03		n/a
S961003884	F	Boron - ICP-Fusion	ug/g	103.2	< 1.00e-01	< 2.00e+03	< 1.70e+03		n/a	104.0	2.00e-03		n/a
S961003884	F	Beryllium - ICP-Fusion	ug/g	100.0	< 5.00e-02	< 1.00e+03	< 8.97e+02		n/a	95.70	1.00e-03		n/a
S961003884	F	Bismuth - ICP-Fusion	ug/g	98.00	< 5.00e-02	< 1.00e+03	< 8.97e+02		n/a	94.70	1.00e-03		n/a
S961003884	F	Barium - ICP-Fusion	ug/g	102.4	< 5.00e-02	< 1.00e+02	< 1.70e+02		n/a	94.70	100.0		n/a
S961003884	F	Calcium - ICP-Fusion	ug/g	101.0	< 1.00e-01	< 2.00e+03	< 1.70e+03		n/a	105.0	2.00e-03		n/a
S961003884	F	Cadmium - ICP-Fusion	ug/g	96.80	< 1.00e-01	< 2.00e+03	< 1.70e+03		n/a	105.0	2.00e-03		n/a
S961003884	F	Cerium - ICP-Fusion	ug/g	98.20	< 1.00e-01	< 2.00e+03	< 8.97e+02		n/a	98.50	100.0		n/a
S961003884	F	Cobalt - ICP-Fusion	ug/g	98.20	< 1.00e-02	< 4.00e+02	< 3.59e+02		n/a	98.50	2.00e-03		n/a
S961003884	F	Chromium - ICP-Fusion	ug/g	98.80	< 1.00e-02	< 2.00e+02	1.73e+03	2.22e+03	45.8	93.50	400.0		n/a
S961003884	F	Copper - ICP-Fusion	ug/g	96.60	< 1.00e-02	< 2.00e+02	< 1.70e+02		n/a	93.50	200.0		n/a
S961003884	F	Iron - ICP-Fusion	ug/g	98.60	< 5.00e-02	< 2.00e+02	1.50e+03	1.96e+03	46.2	98.00	1.00e-03		n/a
S961003884	F	Potassium - ICP-Fusion	ug/g	96.80	< 5.00e-01	5.32e+06	n/a		n/a	97.60	1.00e-04		n/a
S961003884	F	Lanthanum - ICP-Fusion	ug/g	99.40	< 5.00e-02	< 1.00e+03	< 8.97e+02		n/a	97.60	1.00e-03		n/a
S961003884	F	Lithium - ICP-Fusion	ug/g	103.0	< 1.00e-02	< 2.00e+02	< 1.70e+02		n/a	97.80	200.0		n/a
S961003884	F	Magnesium - ICP-Fusion	ug/g	96.20	< 1.00e-02	< 2.00e+02	< 1.70e+02		n/a	94.80	2.00e-03		n/a
S961003884	F	Manganese - ICP-Fusion	ug/g	96.40	< 1.00e-02	9.28e+02	5.78e+02	753.0	46.2	93.70	200.0		n/a
S961003884	F	Molybdenum - ICP-Fusion	ug/g	99.00	< 5.00e-02	< 1.00e+03	< 8.97e+02		n/a	99.50	1.00e-03		n/a
S961003884	F	Sodium - ICP-Fusion	ug/g	97.80	1.680	2.05e+03	1.46e+03	1.76e+03	33.6	99.50	2.00e-03		n/a
S961003884	F	Neodymium - ICP-Fusion	ug/g	100.0	< 1.00e-02	< 2.00e+03	< 1.70e+03		n/a	98.40	2.00e-03		n/a
S961003884	F	Nickel - ICP-Fusion	ug/g	1.84e-01	< 2.00e+03	1.38e+03	< 3.59e+03		n/a	98.40	400.0		n/a
S961003884	F	Phosphorus - ICP-Fusion	ug/g	100.8	< 2.00e-01	< 4.00e+03	< 3.59e+03		n/a	111.0	4.00e-03		n/a
S961003884	F	Lead - ICP-Fusion	ug/g	97.60	< 1.00e-01	< 2.00e+03	< 1.70e+03		n/a	99.0	2.00e-03		n/a
S961003884	F	Sulfur - ICP-Fusion	ug/g	97.60	< 1.00e-01	3.35e+03	2.17e+03	2.76e+03	42.3	97.90	2.00e-03		n/a
S961003884	F	Antimony - ICP-Fusion	ug/g	96.40	< 5.00e-02	< 1.00e+03	< 1.08e+03		n/a	95.40	2.00e-03		n/a
S961003884	F	Selenium - ICP-Fusion	ug/g	96.40	< 1.00e-01	< 2.00e+03	< 1.70e+03		n/a	97.20	2.00e-03		n/a
S961003884	F	Silicon - ICP-Fusion	ug/g	93.60	< 5.00e-02	< 2.00e+03	< 8.97e+02		n/a	97.60	2.00e-03		n/a
S961003884	F	Samarium - ICP-Fusion	ug/g	93.60	< 1.00e-01	< 2.00e+03	< 1.70e+03		n/a	93.80	2.00e-03		n/a
S961003884	F	Strontium - ICP-Fusion	ug/g	96.80	< 1.00e-02	< 2.00e+02	< 1.70e+02		n/a	94.80	200.0		n/a
S961003884	F	Titanium - ICP-Fusion	ug/g	96.20	< 1.00e-02	< 2.00e+02	< 1.70e+02		n/a	95.00	200.0		n/a
S961003884	F	Thallium - ICP-Fusion	ug/g	94.80	< 2.00e-01	< 4.00e+03	< 3.59e+03		n/a	94.30	4.00e-03		n/a
S961003884	F	Uranium - ICP-Fusion	ug/g	94.60	< 5.00e-01	< 1.00e+04	< 8.97e+03		n/a	91.00	1.00e-04		n/a

Sample#	R#d	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Dot Limit	Count Err%
S961003884	F	Vanadium - ICP-Fusion	ug/g	98.40 < 5.00e-02	< 1.00e-02	< 8.97e2					1.00e+03	
S961003884	F	Zinc - ICP-Fusion	ug/g	98.30 < 1.00e-02	< 2.00e-02	< 1.79e2					99.80	
S961003884	F	Zirconium - ICP-Fusion	ug/g	99.36 < 1.00e-02	< 1.00e-02	< 1.79e2					95.50	
S961003884	F	Cobalt-50 by GEA	ug/g	99.36 < 1.00e-02	1.54e-01	< 1.15e+2					200.0	
S961003884	F	Cesium-137 by GEA	ug/g	98.17 < 1.99e-01	1.61e+02	126.0		143.7	26.2			
S961003884	F	Cesium-134 by GEA	ug/g	98.17 < 1.99e-01	1.34e1	1.030		1.185	26.2			
S961003884	F	Europium-155 by GEA	ug/g	98.17 < 1.99e-01	< 8.82e-01	< 7.94e+0		1.185	26.2			
S961003884	F	Europium-151 by GEA	ug/g	98.17 < 1.99e-01	< 8.82e-01	< 7.94e+0		1.185	26.2			
S961003884	F	Europium-241 by GEA	ug/g	98.17 < 1.99e-01	< 8.82e-01	< 7.94e+0		1.185	26.2			
S961003884	F	Alpha of Digested Solid	ug/g	109.2 < 2.00e-01	< 9.64e1	< 1.54e+3		1.065	42.4			
S961003884	F	Alpha of Solid Sample	ug/g	109.2 < 2.00e-01	< 9.64e1	< 1.54e+3		1.065	42.4			
S961003884	F	Beta of Solid Sample	ug/g	115.4 < 9.05e-01	3.39e+02	8.35e10		290.0	26.8	111.5	3.80e+02	1.05e+01
S961003885	W	Fluoride-ICP-Oxox 4000/4500	ug/g	97.39 < 1.00e-02	1.04e+03	1.65e+03		1.36e+03	4.53	97.13	1.76e+03	4.22e+01
S961003885	W	Chloride-ICP-Oxox 4000/4500	ug/g	97.39 < 1.00e-02	2.78e+03	2.69e+03		2.73e+03	6.69	97.12	3.00e+03	
S961003885	W	Nitrite-ICP-Oxox 4000/4500	ug/g	97.39 < 1.00e-02	1.75e+03	4.69e+03		4.69e+03	5.85	85.95	392.0	
S961003885	W	Bromide by IC-Oxox 4000/4500	ug/g	97.39 < 1.00e-01	1.30e+03	1.31e+03		1.31e+03	0.97		97.83	
S961003885	W	Nitrate by IC-Oxox 4000/4500	ug/g	95.73 < 2.59e-01	2.24e+03	2.23e+03		2.24e+03	1.74	26.16	1.07e+03	
S961003885	W	Phosphate by IC-Oxox 4000/4500	ug/g	97.39 < 1.00e-01	5.55e+03	7.13e+03		6.85e+03	8.38	96.32	1.02e+03	
S961003885	W	Sulfate by IC-Oxox 4000/4500	ug/g	97.39 < 1.00e-01	9.75e+03	9.25e+03		9.51e+03	5.25	96.32	1.02e+03	
S961003885	W	Oxalate by IC-Oxox 4000/4500	ug/g	97.39 < 1.00e-01	9.30e+03	8.65e+03		8.98e+03	14.3	75.50	815.5	
S961003886	I	Silicon - ICP-H2O Dig/Acid	ug/g	99.80 < 1.00e-02	15.40	13.40		14.00	5.74	77.50	3.880	
S961003886	I	Aluminum - ICP-H2O Dig/Acid	ug/g	99.80 < 1.00e-02	7.27e+03	7.14e+03		7.14e+03	3.64	77.50	3.880	
S961003886	I	Arsenic - ICP-H2O Dig/Acid	ug/g	104.2 < 1.00e-01	< 38.90	< 3.90e1		320.0	14.5	98.40	38.40	
S961003886	I	Barium - ICP-H2O Dig/Acid	ug/g	99.40 < 2.46e1	5.58e+02	< 1.82e1		520.0	14.5	98.40	38.40	
S961003886	I	Beryllium - ICP-H2O Dig/Acid	ug/g	100.0 < 5.00e-02	< 19.40	< 1.94e1		17.0	17.55	92.10	3.890	
S961003886	I	Bismuth - ICP-H2O Dig/Acid	ug/g	102.6 < 5.00e-03	< 1.940	< 3.94e1		112.0	3.57	95.10	19.40	
S961003886	I	Calcium - ICP-H2O Dig/Acid	ug/g	100.2 < 1.00e-01	2.69e+02	< 38.90		1.22e+03	2.47	106.0	19.40	
S961003886	I	Cadmium - ICP-H2O Dig/Acid	ug/g	100.2 < 1.00e-03	< 47.40	< 4.74e1		46.65	4.55	95.40	38.80	
S961003886	I	Cerium - ICP-H2O Dig/Acid	ug/g	100.2 < 1.00e-01	< 38.90	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Cobalt - ICP-H2O Dig/Acid	ug/g	101.5 < 2.00e-02	< 7.780	< 7.92e0		210.0	5.10	96.30	7.780	
S961003886	I	Chromium - ICP-H2O Dig/Acid	ug/g	101.4 < 1.00e-02	2.21e+02	2.10e+02		215.5	5.10	96.30	7.780	
S961003886	I	Copper - ICP-H2O Dig/Acid	ug/g	96.80 < 1.00e-02	1.14e+02	1.17e+02		112.0	3.57	95.10	19.40	
S961003886	I	Iron - ICP-H2O Dig/Acid	ug/g	100.8 < 5.00e-02	1.23e+03	1.20e+03		1.22e+03	2.47	106.0	19.40	
S961003886	I	Potassium - ICP-H2O Dig/Acid	ug/g	98.40 < 5.00e-01	1.59e+03	< 19.40		1.22e+03	2.47	106.0	19.40	
S961003886	I	Lanthanum - ICP-H2O Dig/Acid	ug/g	101.8 < 5.00e-02	< 3.890	< 3.94e1		17.0	17.55	92.10	3.890	
S961003886	I	Lithium - ICP-H2O Dig/Acid	ug/g	101.2 < 1.00e-02	< 38.90	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Magnesium - ICP-H2O Dig/Acid	ug/g	97.00 < 1.00e-01	< 38.90	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Manganese - ICP-H2O Dig/Acid	ug/g	98.40 < 1.00e-02	64.60	65.20		64.90	0.92	91.50	3.880	
S961003886	I	Molybdenum - ICP-H2O Dig/Acid	ug/g	101.0 < 5.00e-02	33.00	30.30		31.65	8.53	94.30	19.40	
S961003886	I	Sodium - ICP-H2O Dig/Acid	ug/g	98.20 < 2.88e1	1.87e+05	1.80e+05		1.84e+05	3.81	-6.10e2	38.80	
S961003886	I	Niobium - ICP-H2O Dig/Acid	ug/g	102.0 < 1.00e-01	< 38.90	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Nickel - ICP-H2O Dig/Acid	ug/g	100.8 < 2.00e-02	2.59e+02	250.0		250.5	3.54	94.30	7.780	
S961003886	I	Phosphorus - ICP-H2O Dig/Acid	ug/g	101.2 < 2.00e-01	2.92e+03	2.35e+03		2.32e+03	2.59	95.80	7.780	
S961003886	I	Lead - ICP-H2O Dig/Acid	ug/g	100.0 < 1.00e-01	1.59e+03	1.55e+03		1.52e+03	9.21	95.60	38.80	
S961003886	I	Silver - ICP-H2O Dig/Acid	ug/g	99.20 < 1.00e-01	3.17e+03	3.11e+03		3.14e+03	8.02	85.00	38.80	
S961003886	I	Antimony - ICP-H2O Dig/Acid	ug/g	97.20 < 4.00e-02	< 23.50	< 2.35e1		23.00	17.0	94.70	23.40	
S961003886	I	Selenium - ICP-H2O Dig/Acid	ug/g	96.40 < 4.00e-01	< 38.90	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Silicon - ICP-H2O Dig/Acid	ug/g	95.40 < 2.8e-01	1.69e+02	141.0		155.0	18.1	103.0	18.40	
S961003886	I	Strontium - ICP-H2O Dig/Acid	ug/g	99.40 < 1.00e-01	< 38.90	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Titanium - ICP-H2O Dig/Acid	ug/g	98.80 < 1.00e-02	< 3.890	< 3.94e1		320.0	14.5	98.40	38.40	
S961003886	I	Titanium - ICP-H2O Dig/Acid	ug/g	98.80 < 1.00e-02	< 3.890	< 3.94e1		320.0	14.5	98.40	38.40	

WHC-SD-WM-DP-191, REV. I

Sample#	R#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Averages	RPD %	Spk Rec %	Det Limit	Count Err%
S961003886	1	Thallium - ICP-H2O Dig/Acid	ug/g	97.40	< 2.00e-01	< 77.80	< 77.90	n/a	n/a	95.0	17.80	n/a
S961003886	1	Uranium - ICP-H2O Dig/Acid	ug/g	96.10	< 5.00e-01	< 1.94e+01	< 1.98e2	n/a	n/a	95.10	184.0	n/a
S961003886	1	Vanadium - ICP-H2O Dig/Acid	ug/g	100.8	< 5.00e-02	< 19.40	< 1.98e1	n/a	n/a	94.20	194.0	n/a
S961003886	1	Zinc - ICP-H2O Dig/Acid	ug/g	101.2	< 5.00e-02	< 9.210	8.750	8.970	5.35	98.10	3.680	n/a
S961003886	1	Zirconium - ICP-H2O Dig/Acid	ug/g	99.40	< 1.00e-02	< 3.890	4.140	n/a	n/a	95.10	3.890	n/a
S961003887	1	Silver - ICP-Acid Digest	ug/g	85.90	< 1.00e-02	< 31.90	17.100	24.5	60.9	75.70	4.900	n/a
S961003887	1	Aluminum - ICP-Acid Digest	ug/g	89.60	< 9.00e-02	1.12e+04	1.20e+04	1.16e+04	6.90	248.0	24.50	n/a
S961003887	1	Arsenic - ICP-Acid Digest	ug/g	91.00	< 1.00e-01	< 49.00	< 45.70	n/a	n/a	95.10	49.00	n/a
S961003887	1	Boron - ICP-Acid Digest	ug/g	98.40	5.52e-01	< 72.00	< 68.00	70.00	5.71	95.20	49.00	n/a
S961003887	1	Barium - ICP-Acid Digest	ug/g	88.20	< 5.00e-02	< 24.50	< 23.01	n/a	n/a	90.60	24.50	n/a
S961003887	1	Beryllium - ICP-Acid Digest	ug/g	92.20	< 5.00e-03	< 2.450	< 2.260	n/a	n/a	91.80	2.450	n/a
S961003887	1	Bismuth - ICP-Acid Digest	ug/g	86.40	< 1.00e-01	< 49.00	< 45.70	n/a	n/a	91.00	49.00	n/a
S961003887	1	Calcium - ICP-Acid Digest	ug/g	114.2	6.61e-01	4.11e+02	319.0	345.0	25.2	84.00	49.00	n/a
S961003887	1	Cadmium - ICP-Acid Digest	ug/g	87.20	< 5.00e-03	1.55e+01	49.40	51.20	7.03	90.40	24.50	n/a
S961003887	1	Cobalt - ICP-Acid Digest	ug/g	90.40	< 1.00e-01	75.90	42.50	69.10	19.7	91.20	49.00	n/a
S961003887	1	Copper - ICP-Acid Digest	ug/g	88.20	< 1.00e-02	< 9.800	< 9.520	n/a	n/a	93.20	9.800	n/a
S961003887	1	Chromium - ICP-Acid Digest	ug/g	116.8	1.00e-02	2.75e+03	2.61e+03	2.68e+03	5.22	90.60	4.900	n/a
S961003887	1	Iron - ICP-Acid Digest	ug/g	88.60	< 5.00e-02	3.59e+03	2.61e+03	3.10e+03	31.9	7.720	4.500	n/a
S961003887	1	Potassium - ICP-Acid Digest	ug/g	90.40	< 5.00e-01	1.41e+03	1.28e+03	1.34e+03	9.67	99.60	24.50	n/a
S961003887	1	Lanthanum - ICP-Acid Digest	ug/g	90.40	< 5.00e-02	< 39.40	35.60	37.50	10.1	92.20	24.50	n/a
S961003887	1	Lithium - ICP-Acid Digest	ug/g	92.60	< 1.00e-02	< 4.900	< 4.570	n/a	n/a	94.40	4.900	n/a
S961003887	1	Magnesium - ICP-Acid Digest	ug/g	84.80	< 1.00e-01	< 49.00	< 45.70	n/a	n/a	86.60	49.00	n/a
S961003887	1	Manganese - ICP-Acid Digest	ug/g	86.00	< 1.00e-02	1.44e+03	896.0	1.17e+03	4.6	38.60	4.900	n/a
S961003887	1	Molybdenum - ICP-Acid Digest	ug/g	88.20	< 5.00e-02	1.68e+05	1.71e+05	1.70e+05	1.77	1.21e+03	24.50	n/a
S961003887	1	Sodium - ICP-Acid Digest	ug/g	110.6	1.060	1.18e+05	1.01e+05	1.06e+05	7.46	90.40	9.800	n/a
S961003887	1	Neodymium - ICP-Acid Digest	ug/g	89.60	< 1.00e-01	1.11e+02	101.0	281.5	7.46	90.40	9.800	n/a
S961003887	1	Nickel - ICP-Acid Digest	ug/g	89.40	< 2.00e-02	2.92e+02	271.0	287.5	7.46	90.40	9.800	n/a
S961003887	1	Phosphorus - ICP-Acid Digest	ug/g	94.20	< 1.00e-01	3.46e+03	2.28e+03	2.87e+03	41.1	-4.18e+1	98.00	n/a
S961003887	1	Lead - ICP-Acid Digest	ug/g	85.20	< 1.00e-01	3.49e+02	289.0	319.0	18.3	84.00	49.00	n/a
S961003887	1	Sulfur - ICP-Acid Digest	ug/g	90.40	< 1.00e-01	3.12e+03	3.25e+03	3.19e+03	8.00	91.20	49.00	n/a
S961003887	1	Antimony - ICP-Acid Digest	ug/g	86.80	< 1.00e-02	< 29.40	< 27.40	n/a	n/a	85.00	49.00	n/a
S961003887	1	Selenium - ICP-Acid Digest	ug/g	83.00	< 1.00e-01	< 49.00	< 45.70	n/a	n/a	85.00	49.00	n/a
S961003887	1	Silicon - ICP-Acid Digest	ug/g	108.8	1.59e-01	2.56e+02	129.0	182.5	66.0	80.00	24.50	n/a
S961003887	1	Samarium - ICP-Acid Digest	ug/g	87.60	< 1.00e-01	< 49.00	< 45.70	n/a	n/a	92.00	49.00	n/a
S961003887	1	Strontium - ICP-Acid Digest	ug/g	88.00	< 1.00e-02	< 4.900	< 4.570	n/a	n/a	86.60	4.900	n/a
S961003887	1	Titanium - ICP-Acid Digest	ug/g	82.00	< 1.00e-02	< 4.900	< 4.570	n/a	n/a	83.80	4.900	n/a
S961003887	1	Thallium - ICP-Acid Digest	ug/g	83.40	< 2.00e-01	< 98.00	< 91.50	n/a	n/a	85.00	98.00	n/a
S961003887	1	Uranium - ICP-Acid Digest	ug/g	86.50	< 5.00e-01	7.19e+02	642.0	680.5	11.3	82.40	24.50	n/a
S961003887	1	Vanadium - ICP-Acid Digest	ug/g	87.80	< 5.00e-02	< 24.50	< 22.01	n/a	n/a	90.00	24.50	n/a
S961003887	1	Zinc - ICP-Acid Digest	ug/g	100.6	1.30e-02	43.70	61.40	42.55	5.41	96.40	4.900	n/a
S961003887	1	Zirconium - ICP-Acid Digest	ug/g	90.00	< 1.00e-02	1.50e+02	83.90	117.0	56.5	86.20	4.900	n/a

WHC-SD-WM-DP-191, REV. 1

PHOTOGRAPHS

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

U-106 Core 14 / Segment 1

5-20-96

U-100 Wire 141 Segment 2

5-21-76

U-100 147 Segment 2

U-106 Core 177 Segment-4

66-106 600-148 Segment 2

5-20-76

U-106 Core 14 & Segment 3

U-106 core 148 segment 4

5-20-76

WHC-SD-WM-DP-191, REV. 1

U-106 EXTRUSION REPORTS

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. I

U-106 Core 147 Segment #1 Riser #19

Date: May 21, 1996
Sampler serial #: 95-099S
Sample #: 96-215
Cask serial #: C-2001
Logbook #: WHC-N-1342
Labcore #: S96T002857

Notes:

- * Hot Cell Temp 80.2 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.01 grams
- * Dose rate through the drill string was 1.4 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * Collected approximately 230 mLs of drainable liquid (L1). The liquid was amber in color and clear. No solids were present other than those present in drainable liquid. Subsampled liquid in one jar.

Subsample information:

- * Subsampled Liquids: Drainable Liquid
U-106 Core 147 Segment # 1 Riser 19:
-Jar # 10090 (250 mL jar size)
-314.5 gram net weight

Notes:

- * A total of 314.5 grams of solids were collected. The dose rate through the drill string was 1.4 R/hr.

WHC-SD-WM-DP-191, REV. I

U-106 Core 147 Segment #2 Riser #19

Date: May 21, 1996
Sampler serial #: 94-318S
Sample #: 96-216
Cask serial #: 70
Logbook #: WHC-N-1342
Labcore #: S96T002858

Notes:

- * Hot Cell Temp 80.1 degrees F. Humidity 31 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.01 grams
- * Dose rate through the drill string was 1.4 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * Collected approximately 90 mLs of drainable liquid (L1). The liquid was dark brown in color and opaque. Extruded approximately 8 inches of solids. The solids were dark brown in color and the texture resembled a sludge slurry (D2). The solids were subsampled in one jar.

Subsample information:

- * **Subsampled Liquids: Drainable Liquid**
U-106 Core 147 Segment # 2 Riser 19:
-Jar # 10061 (125 mL jar size)
-132.0 gram net weight
- * **Subsampled Solids: Upper Half Solids**
U-106 Core 147 Segment # 2 Riser 19:
-Jar # 10201 (250 mL jar size)
-201.2 gram net weight

Notes:

- * A total of 333.2 grams of liquid and solids were collected. The dose rate through the drill string was 1.4 R/hr.

WHC-SD-WM-DP-191, REV.]

U-106 Core 147 Segment #3 Riser #19

Date: May 20, 1996
Sampler serial #: 95-112S
Sample #: 96-217
Cask serial #: 73
Logbook #: WHC-N-1342
Labcore #: S96T002811

Notes:

- * Hot Cell Temp 79.9 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.02 grams
- * Dose rate through the drill string was 1.5 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * No drainable liquid. Extruded approximately 17 inches of solids. The solids were dark brown in color and the texture resembled a sludge slurry (D2). The solids were subsampled in half segments.

Subsample information:

- * Subsampled Solids: Upper Half Solids
U-106 Core 147 Segment # 3 Riser 19:
-Jar # 10190 (250 mL jar size)
-178.7 gram net weight
- * Subsampled Solids: Lower Half Solids
U-106 Core 147 Segment # 3 Riser 19:
-Jar # 10191 (250 mL jar size)
-200.8 gram net weight

Notes:

- * A total of 379.5 grams of solids were collected. The dose rate through the drill string was 1.5 R/hr.

WHC-SD-WM-DP-191, REV. I

U-106 Core 147 Segment #4 Riser #19

Date: May 21, 1996
Sampler serial #: 95-313S
Sample #: 96-218
Cask serial #: C-1021
Logbook #: WHC-N-1342
Labcore #: S96T002812

Notes:

- * Hot Cell Temp 80.1 degrees F. Humidity 31 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.02 grams
- * Dose rate through the drill string was 1.4 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * No drainable liquid. Extruded approximately 19 inches of solids. The solids were dark brown in color and the texture resembled a sludge slurry (D2). The solids were subsampled in half segments.

Subsample information:

- * Subsampled Solids: Upper Half Solids
U-106 Core 147 Segment # 4 Riser 19:
-Jar # 10194 (250 mL jar size)
-211.3 gram net weight
- * Subsampled Solids: Lower Half Solids
U-106 Core 147 Segment # 4 Riser 19:
-Jar # 10199 (250 mL jar size)
-213.8 gram net weight

Notes:

- * A total of 425.1 grams of solids were collected. The dose rate through the drill string was 1.4 R/hr.

WHC-SD-WM-DP-191, REV.I

U-106 Core 147 Segment #5 Riser #19

Date: May 20, 1996
Sampler serial #: 94-052S
Sample #: 96-219
Cask serial #: 1011-C
Logbook #: WHC-N-1342
Labcore #: S96T002813

Notes:

- * Hot Cell Temp 79.5 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.02 grams
- * Dose rate through the drill string was 700 mR/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * No drainable liquid. Extruded approximately 14 inches of solids. The lower portion of solids were 4 inches in length, dark brown in color and the texture resembled a wet salt (M3). The upper portion was 10 inches in length, dark brown in color and the texture resembled a sludge slurry (D2). The solids were subsampled in half segments.

Subsample information:

- * Subsampled Solids: Upper Half Solids
U-106 Core 147 Segment # 5 Riser 19:
-Jar # 10184 (250 mL jar size)
-260.1 gram net weight
- * Subsampled Solids: Lower Half Solids
U-106 Core 147 Segment # 5 Riser 19:
-Jar # 10069 (125 mL jar size)
-91.5 gram net weight

Notes:

- * A total of 351.6 grams of solids were collected. The dose rate through the drill string was 700 mR/hr.

WHC-SD-WM-DP-191, REV.1

U-106 Core 148 Segment #1 Riser #2

Date: May 15, 1996
Sampler serial #: 95-062S
Sample #: 96-220
Cask serial #: 1010-C
Logbook #: WHC-N-1177
Labcore #: S96T002823

Notes:

- * Hot Cell Temp 78.8 degrees F. Humidity 43 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.01 grams
- * Dose rate through the drill string was 1 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * Collected approximately 80 mLs of drainable liquid (L1). The liquid was amber in color and opaque. No solids were present. The liquid was subsampled in one jar.

Subsample information:

- * **Subsampled Liquid: Drainable Liquid**
U-106 Core 148 Segment # 1 Riser 2:
-Jar # 10185 (250 mL jar size)
-116.5 gram net weight

Notes:

- * A total of 116.5 grams of liquid were collected. The dose rate through the drill string was 1 R/hr.

WHC-SD-WM-DP-191, REV.1

U-106 Core 148 Segment #2 Riser #2

Date: May 20, 1996
Sampler serial #: 95-156S
Sample #: 96-221
Cask serial #: C-1016
Logbook #: WHC-N-1342
Labcore #: S96T002824

Notes:

- * Hot Cell Temp 79.8 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.02 grams
- * Dose rate through the drill string was 1.5 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * Collected approximately 80 mLs of drainable liquid (L1). The liquid was brown gray in color and opaque. Extruded approximately 9 inches of solids. The solids were light gray to dark brown in color and the texture resembled a sludge slurry (D2).
Subsampled solids in half segments.

Subsample information:

- * Subsampled Liquid: Drainable Liquid
U-106 Core 148 Segment # 2 Riser 2:
-Jar # 10063 (125 mL jar size)
-124.1 gram net weight
- * Subsampled Solids: Upper Half Solids
U-106 Core 148 Segment # 2 Riser 2:
-Jar # 10053 (125 mL jar size)
-104.3 gram net weight
- * Subsampled Solids: Lower Half Solids
U-106 Core 148 Segment # 2 Riser 2:
-Jar # 10058 (125 mL jar size)
-120.8 gram net weight

WHC-SD-WM-DP-191, REV.1

Notes:

- * A total of 349.2 grams of liquid and solids were collected. The dose rate through the drill string was 1.5 R/hr.

U-106 Core 148 Segment #3 Riser #2

Date: May 20, 1996
Sampler serial #: 95-134S
Sample #: 96-222
Cask serial #: 61
Logbook #: WHC-N-1342
Labcore #: S96T002818

Notes:

- * Hot Cell Temp 79.8 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.03 grams
- * Dose rate through the drill string was 1500 mR/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * No drainable liquid. Extruded approximately 18 inches of solids. The solids were dark brown in color and the texture resembled a wet sludge (D3). Subsampled solids in half segments.

Subsample information:

- * Subsampled Solids: Upper Half Solids
U-106 Core 148 Segment # 3 Riser 2:
-Jar # 10180 (250 mL jar size)
-202.8 gram net weight
- * Subsampled Solids: Lower Half Solids
U-106 Core 148 Segment # 3 Riser 2:
-Jar # 10186 (250 mL jar size)
-197.4 gram net weight

Notes:

WHC-SD-WM-DP-191, REV. I

- * A total of 400.2 grams of solids were collected. The dose rate through the drill string was 1500 mR/hr.

WHC-SD-WM-DP-191, REV. I

U-106 Core 148 Segment #4 Riser #2

Date: May 20, 1996
Sampler serial #: 95-064S
Sample #: 96-223
Cask serial #: C-2008
Logbook #: WHC-N-1342
Labcore #: S96T002819

Notes:

- * Hot Cell Temp 79.6 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.03 grams
- * Dose rate through the drill string was 1.3 R/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * No drainable liquid. Extruded approximately 19 inches of solids. The solids were dark brown in color and the texture resembled a wet sludge (D3). Subsampled solids in half segments.

Subsample information:

- * Subsampled Solids: Upper Half Solids
U-106 Core 148 Segment # 4 Riser 2:
-Jar # 10187 (250 mL jar size)
-227.1 gram net weight
- * Subsampled Solids: Lower Half Solids
U-106 Core 148 Segment # 4 Riser 2:
-Jar # 10060 (125 mL jar size)
-194.3 gram net weight

Notes:

- * A total of 421.4 grams of solids were collected. The dose rate through the drill string was 1.3 R/hr.

WHC-SD-WM-DP-191, REV. I

U-106 Core 148 Segment #5 Riser #2

Date: May 21, 1996
Sampler serial #: 95-311S
Sample #: 96-224
Cask serial #: C-1053
Logbook #: WHC-N-1342
Labcore #: S96T002820

Notes:

- * Hot Cell Temp 79.5 degrees F. Humidity 28 %.
- * Check weights: 20 gms = 20.00 grams 500 gms = 500.01 grams
- * Dose rate through the drill string was 700 mR/hr.
- * Liner liquid: None observed.
- * Sampler valve closed before and after cutting cables.
- * Extruded sample and performed photography.

Sample information:

- * No drainable liquid. Extruded approximately 11 inches of solids. The lower portion of solids were 5 inches in length, dark brown in color and the texture resembled a moist salt (M4). The upper portion was 6 inches in length, dark brown in color and the texture resembled a sludge slurry (D2). Subsampled solids in half segments.

Subsample information:

- * Subsampled Solids: **Upper Half Solids**
U-106 Core 148 Segment # 5 Riser 2:
-Jar # 10093 (250 mL jar size)
-188.0 gram net weight
- * Subsampled Solids: **Lower Half Solids**
U-106 Core 148 Segment # 5 Riser 2:
-Jar # 10066 (125 mL jar size)
-134.3 gram net weight

Notes:

- * A total of 322.3 grams of solids were collected. The dose rate through the drill string was 700 mR/hr.

WHC-SD-WM-DP-191, REV. 1

SAMPLE HANDLING

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

LABCORE Data Entry Template for Worklist#

8675

Analyst: EE Instrument: BA000 Book # NA

Method: LO-160-103 Rev/Mod B0

Worklist Comment: U-106 C147 SEG # 3 RISER 19 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>500.02</u>	<u>N/A</u>	
96000641	U-106 (P)	3 SAMPLE	S96T002811	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>		ml
96000641	U-106 (P)	4 SAMPLE	S96T002811	0	DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	5 SAMPLE	S96T002811	0	EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>		g/ml
96000641	U-106 (P)	6 SAMPLE	S96T002811	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
96000641	U-106 (P)	7 SAMPLE	S96T002811	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	8 SAMPLE	S96T002811	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>		
96000641	U-106 (P)	9 SAMPLE	S96T002811	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>		ml
96000641	U-106 (P)	10 SAMPLE	S96T002811	0	SLDWT-01	SOLID	<u>N/A</u>	<u>379.5</u>		g
96000641	U-106 (P)	11 SAMPLE	S96T002811	0	APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>		
96000641	U-106 (P)	12 SAMPLE	S96T002811	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist #

8675

Analyst Signature EE Date 5-21-96

Analyst Signature EE Date 5-21-96

Reviewed by SA G.L. Day 5-23-96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8676

Analyst: CC Instrument: BA000 Book # NAMethod: LO-160-103 Rev/Mod Bo

Worklist Comment: U-106 C147 SEG # 4 RISER 19 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>210</u>	<u>20.00</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>500.02</u>	<u>N/A</u>	
96000641	U-106 (P)	3 SAMPLE	S96T002812	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>		ml
96000641	U-106 (P)	4 SAMPLE	S96T002812	0	DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	5 SAMPLE	S96T002812	0	EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>		g/ml
96000641	U-106 (P)	6 SAMPLE	S96T002812	0	EXTRUD01	SOLID	<u>N/A</u>	<u>Complete</u>		
96000641	U-106 (P)	7 SAMPLE	S96T002812	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	8 SAMPLE	S96T002812	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>		
96000641	U-106 (P)	9 SAMPLE	S96T002812	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>		ml
96000641	U-106 (P)	10 SAMPLE	S96T002812	0	SLDWT-01	SOLID	<u>N/A</u>	<u>425.1</u>		g
96000641	U-106 (P)	11 SAMPLE	S96T002812	0	APPEAR01	SOLID	<u>N/A</u>	<u>Complete</u>		
96000641	U-106 (P)	12 SAMPLE	S96T002812	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist #

8676

Analyst Signature CC Date 5-22-96Analyst Signature CC Date 5-22-96Reviewed by John B. Bandy 5-22-98

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8677

Analyst: EL Instrument: BA000 Book # NAMethod: LO-160-103 Rev/Mod PO

Worklist Comment: U-106 C147 SEG 5 RISER 19 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01		EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2	INSTCHK02		EXTRUD01	SOLID	<u>500</u>	<u>500.00</u>	<u>N/A</u>	
96000641	U-106 (P)	3	SAMPLE	S96T002813	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>	ml
96000641	U-106 (P)	4	SAMPLE	S96T002813	0	DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>	g
96000641	U-106 (P)	5	SAMPLE	S96T002813	0	EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>	g/ml
96000641	U-106 (P)	6	SAMPLE	S96T002813	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>	
96000641	U-106 (P)	7	SAMPLE	S96T002813	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>	g
96000641	U-106 (P)	8	SAMPLE	S96T002813	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>	
96000641	U-106 (P)	9	SAMPLE	S96T002813	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>	ml
96000641	U-106 (P)	10	SAMPLE	S96T002813	0	SLDWT-01	SOLID	<u>N/A</u>	<u>351.6</u>	g
96000641	U-106 (P)	11	SAMPLE	S96T002813	0	APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>	
96000641	U-106 (P)	12	SAMPLE	S96T002813	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>	ml

Final page for worklist #

8677

Analyst Signature EL Date 5-21-96Analyst Signature EL Date 5-21-96Reviewed by John B. Berry 5-22-96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8678

Analyst: EC Instrument: BA000 Book # NA

Method: LO-160-103 Rev/Mod DO

Worklist Comment: U-106 C148 SEG # 3 RISER 2 EXTRUSION

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2	INSTCHK02				EXTRUD01	SOLID	<u>500</u>	<u>500.03</u>	<u>N/A</u>	
96000643	U-106 (P)	3	SAMPLE	S96T002818	0		DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>		mL
96000643	U-106 (P)	4	SAMPLE	S96T002818	0		DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000643	U-106 (P)	5	SAMPLE	S96T002818	0		EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>		g/mL
96000643	U-106 (P)	6	SAMPLE	S96T002818	0		EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
96000643	U-106 (P)	7	SAMPLE	S96T002818	0		LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000643	U-106 (P)	8	SAMPLE	S96T002818	0		NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>		
96000643	U-106 (P)	9	SAMPLE	S96T002818	0		SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>		mL
96000643	U-106 (P)	10	SAMPLE	S96T002818	0		SLDWT-01	SOLID	<u>N/A</u>	<u>400.2</u>		g
96000643	U-106 (P)	11	SAMPLE	S96T002818	0		APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>		
96000643	U-106 (P)	12	SAMPLE	S96T002818	0		ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		mL

Final page for worklist #

8678

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8679

Analyst: CC Instrument: BA000 Book # NAMethod: LO-160-103 Rev/Mod Bo

Worklist Comment: U-106 C148 SEG # 4 RISER 2 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>500.03</u>	<u>N/A</u>	
96000643	U-106 (P)	3 SAMPLE	S96T002819	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>		mL
96000643	U-106 (P)	4 SAMPLE	S96T002819	0	DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000643	U-106 (P)	5 SAMPLE	S96T002819	0	EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>		g/mL
96000643	U-106 (P)	6 SAMPLE	S96T002819	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
96000643	U-106 (P)	7 SAMPLE	S96T002819	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000643	U-106 (P)	8 SAMPLE	S96T002819	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>		
96000643	U-106 (P)	9 SAMPLE	S96T002819	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>		mL
96000643	U-106 (P)	10 SAMPLE	S96T002819	0	SLDWT-01	SOLID	<u>N/A</u>	<u>42.4</u>		g
96000643	U-106 (P)	11 SAMPLE	S96T002819	0	APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>		
96000643	U-106 (P)	12 SAMPLE	S96T002819	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		mL

Final page for worklist #

8679

CSL 5-21-96
Analyst Signature Date

CSL 5-21-96
Analyst Signature Date

Reviewed by Sal B. Guy 5-22-96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8680

Analyst: EC Instrument: BA000 Book # NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: U-106 C148 SEG # 5 RISER 2 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01		EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2	INSTCHK02		EXTRUD01	SOLID	<u>500</u>	<u>500.01</u>	<u>N/A</u>	
96000643	U-106 (P)	3	SAMPLE	S96T002820	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>	ml
96000643	U-106 (P)	4	SAMPLE	S96T002820	0	DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>	g
96000643	U-106 (P)	5	SAMPLE	S96T002820	0	EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>	g/ml
96000643	U-106 (P)	6	SAMPLE	S96T002820	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>	
96000643	U-106 (P)	7	SAMPLE	S96T002820	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>	g
96000643	U-106 (P)	8	SAMPLE	S96T002820	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>	
96000643	U-106 (P)	9	SAMPLE	S96T002820	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>	ml
96000643	U-106 (P)	10	SAMPLE	S96T002820	0	SLDWT-01	SOLID	<u>N/A</u>	<u>322.3</u>	g
96000643	U-106 (P)	11	SAMPLE	S96T002820	0	APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>	
96000643	U-106 (P)	12	SAMPLE	S96T002820	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>	ml

Final page for worklist #

8680

ESD 5-21-96
Analyst Signature Date

ESD 5-21-96
Analyst Signature Date

Reviewed by Paula B. Hy 5-22-96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8688

Analyst: EE Instrument: BA000 Book # NAMethod: LO-160-103 Rev/Mod Bo

Worklist Comment: U-106 C148 SEG 2 RISER 2 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01		EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2	INSTCHK02		EXTRUD01	SOLID	<u>500</u>	<u>500.02</u>	<u>N/A</u>	
96000643	U-106 (P)	3	SAMPLE	S96T002824	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>80</u>	ml
96000643	U-106 (P)	4	SAMPLE	S96T002824	0	DLTQWT01	SOLID	<u>N/A</u>	<u>124.1</u>	g
96000643	U-106 (P)	5	SAMPLE	S96T002824	0	EST.G/ML	SOLID	<u>N/A</u>	<u>1.55</u>	g/ml
96000643	U-106 (P)	6	SAMPLE	S96T002824	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>	
96000643	U-106 (P)	7	SAMPLE	S96T002824	0	LLTQWT01	SOLID	<u>N/A</u>	<u>0</u>	g
96000643	U-106 (P)	8	SAMPLE	S96T002824	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>	
96000643	U-106 (P)	9	SAMPLE	S96T002824	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>	ml
96000643	U-106 (P)	10	SAMPLE	S96T002824	0	SLDWT-01	SOLID	<u>N/A</u>	<u>225.1</u> <u>244.9</u>	g
96000643	U-106 (P)	11	SAMPLE	S96T002824	0	APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>	
96000643	U-106 (P)	12	SAMPLE	S96T002824	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>	ml

Final page for worklist #

8688

Analyst Signature EE Date 5-21-96Analyst Signature EE Date 5-21-96Reviewed by Stella B. Bay 5-22-96

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

8942

Analyst: ee Instrument: BA000 Book # NAMethod: LO-160-103 Rev/Mod Bo

Worklist Comment: U-106 C147 SEG # 1 RISER 19 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>500.01</u>	<u>N/A</u>	
96000641	U-106 (P)	3 SAMPLE	S96T002857	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>230</u>		ml
96000641	U-106 (P)	4 SAMPLE	S96T002857	0	DLIQWT01	SOLID	<u>N/A</u>	<u>314.5</u>		g
96000641	U-106 (P)	5 SAMPLE	S96T002857	0	EST.G/HL	SOLID	<u>N/A</u>	<u>1.36</u>		g/ml
96000641	U-106 (P)	6 SAMPLE	S96T002857	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
96000641	U-106 (P)	7 SAMPLE	S96T002857	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	8 SAMPLE	S96T002857	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1242</u>		
96000641	U-106 (P)	9 SAMPLE	S96T002857	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>		ml
96000641	U-106 (P)	10 SAMPLE	S96T002857	0	SLDWT-01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	11 SAMPLE	S96T002857	0	APPEAR01	SOLID	<u>N/A</u>	<u>complete</u>		
96000641	U-106 (P)	12 SAMPLE	S96T002857	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist #

8942

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

8943

Analyst: EC Instrument: BA000 Book # NA

Method: LO-160-103 Rev/Mod BO

Worklist Comment: U-106 C147 SEG # 2 RISER 19 EXTRUSION

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>500.01</u>	<u>N/A</u>	
96000641	U-106 (P)	3 SAMPLE	S96T002858	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>90</u>		ml.
96000641	U-106 (P)	4 SAMPLE	S96T002858	0	DLIQWT01	SOLID	<u>N/A</u>	<u>132.0</u>		g
96000641	U-106 (P)	5 SAMPLE	S96T002858	0	EST.G/ML	SOLID	<u>N/A</u>	<u>1.46</u>		g/ml.
96000641	U-106 (P)	6 SAMPLE	S96T002858	0	EXTRUD01	SOLID	<u>N/A</u>	<u>Complete</u>		
96000641	U-106 (P)	7 SAMPLE	S96T002858	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
96000641	U-106 (P)	8 SAMPLE	S96T002858	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1342</u>		
96000641	U-106 (P)	9 SAMPLE	S96T002858	0	SLDVOL01	SOLID	<u>N/A</u>	<u>NA</u>		ml.
96000641	U-106 (P)	10 SAMPLE	S96T002858	0	SLDWT-01	SOLID	<u>N/A</u>	<u>201.2</u>		g
96000641	U-106 (P)	11 SAMPLE	S96T002858	0	APPEAR01	SOLID	<u>N/A</u>	<u>Complete</u>		
96000641	U-106 (P)	12 SAMPLE	S96T002858	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml.

Final page for worklist #

8943

EC 5-22-96
Analyst Signature Date

EC 5-22-96
Analyst Signature Date

Reviewed by Arthur B. Benig 5-22-96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WHC-SD-WM-DP-191, REV. 1

SAMPLE PREPARATIONS

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

LABCORE Data Entry Template for Worklist#

9468

Analyst: DCD/EL Instrument: FUS01 Book # N/A

Method: LA-549-141 Rev/Mod _____

Worklist Comment: TANK#U-106,CORE 147,SEG 2UH,3UH,3LH,FOR FUSION01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<u>1</u>	<u>0.250</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	2 SAMPLE	S96T003079 0 F <i>.50639 → .250</i>		FUSION01	SOLID	<u>N/A</u>	<u>2.0424</u>		g/L
96000641	U-106 (P)	3 SAMPLE	S96T003079 0		DOSE-02	SOLID	<u>N/A</u>	<u>75</u>		mrads/hour
96000641	U-106 (P)	4 DUP	S96T003079 0 F <i>.50439 → .250</i>		FUSION01	SOLID	<u>2.0424</u>	<u>2.0172</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	5 DUP	S96T003079 0		DOSE-02	SOLID	<u>75</u>	<u>20</u>	<u>N/A</u>	mrads/hour
96000641	U-106 (P)	6 SAMPLE	S96T003080 0 F <i>.50639 → .250</i>		FUSION01	SOLID	<u>N/A</u>	<u>2.0012</u>		g/L
96000641	U-106 (P)	7 SAMPLE	S96T003080 0		DOSE-02	SOLID	<u>N/A</u>	<u>75</u>		mrads/hour
96000641	U-106 (P)	8 DUP	S96T003080 0 F <i>.51289 → .250</i>		FUSION01	SOLID	<u>2.0012</u>	<u>2.0512</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	9 DUP	S96T003080 0		DOSE-02	SOLID	<u>75</u>	<u>75</u>	<u>N/A</u>	mrads/hour
96000641	U-106 (P)	10 SAMPLE	S96T003083 0 F <i>.49729 → .250</i>		FUSION01	SOLID	<u>N/A</u>	<u>1.9888</u>		g/L
96000641	U-106 (P)	11 SAMPLE	S96T003083 0		DOSE-02	SOLID	<u>N/A</u>	<u>75</u>		mrads/hour
96000641	U-106 (P)	12 DUP	S96T003083 0 F <i>.50499 → .250</i>		FUSION01	SOLID	<u>1.9888</u>	<u>2.0196</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	13 DUP	S96T003083 0		DOSE-02	SOLID	<u>75</u>	<u>75</u>	<u>N/A</u>	mrads/hour

Final page for worklist #

9468

Analyst Signature: Daniel Dunham Date: 7-16-96Analyst Signature: LS Jones Date: 7-18-96

Data Entry Comments:

5ml ^{4H} HCL & 20ml Con H₂O₂. 0% SolidsColor: yellowHPT: Sam Shermal OTT: Smarsh Shelf 3Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9469

Analyst:

Dec/1/96

Instrument: FUS01

Book #

11/A

Method: LA-549-141 Rev/Mod

Worklist Comment: TANK#U-106,CORE 147,SEG 4UH,4LH,5UH,5LH,FUSION01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<i>1</i>	<i>0.250</i>	<i>N/A</i>	g/L
96000641	U-106 (P)	2 SAMPLE	S96T003081	0 F	FUSION01	SOLID	<i>N/A</i>	<i>2.0284</i>		g/L
96000641	U-106 (P)	3 SAMPLE	S96T003081	0	DOSE-02	SOLID	<i>N/A</i>	<i>65</i>		mrad/hour
96000641	U-106 (P)	4 DUP	S96T003081	0 F	FUSION01	SOLID	<i>2.0284</i>	<i>2.0356</i>	<i>N/A</i>	g/L
96000641	U-106 (P)	5 DUP	S96T003081	0	DOSE-02	SOLID	<i>65</i>	<i>65</i>	<i>N/A</i>	mrad/hour
96000641	U-106 (P)	6 SAMPLE	S96T003084	0 F	FUSION01	SOLID	<i>N/A</i>	<i>2.0464</i>		g/L
96000641	U-106 (P)	7 SAMPLE	S96T003084	0	DOSE-02	SOLID	<i>N/A</i>	<i>65</i>		mrad/hour
96000641	U-106 (P)	8 DUP	S96T003084	0 F	FUSION01	SOLID	<i>2.0464</i>	<i>2.0640</i>	<i>N/A</i>	g/L
96000641	U-106 (P)	9 DUP	S96T003084	0	DOSE-02	SOLID	<i>65</i>	<i>65</i>	<i>N/A</i>	mrad/hour
96000641	U-106 (P)	10 SAMPLE	S96T003082	0 F	FUSION01	SOLID	<i>N/A</i>	<i>2.0540</i>		g/L
96000641	U-106 (P)	11 SAMPLE	S96T003082	0	DOSE-02	SOLID	<i>N/A</i>	<i>50</i>		mrad/hour
96000641	U-106 (P)	12 DUP	S96T003082	0 F	FUSION01	SOLID	<i>2.0540</i>	<i>2.0620</i>	<i>N/A</i>	g/L
96000641	U-106 (P)	13 DUP	S96T003082	0	DOSE-02	SOLID	<i>50</i>	<i>50</i>	<i>N/A</i>	mrad/hour
96000641	U-106 (P)	14 SAMPLE	S96T003085	0 F	FUSION01	SOLID	<i>N/A</i>	<i>2.0716</i>		g/L
96000641	U-106 (P)	15 SAMPLE	S96T003085	0	DOSE-02	SOLID	<i>N/A</i>	<i>45</i>		mrad/hour
96000641	U-106 (P)	16 DUP	S96T003085	0 F	FUSION01	SOLID	<i>2.0716</i>	<i>2.0180</i>	<i>N/A</i>	g/L
96000641	U-106 (P)	17 DUP	S96T003085	0	DOSE-02	SOLID	<i>45</i>	<i>45</i>	<i>N/A</i>	mrad/hour

596T00 3067 → 3081

3068 → 3084

3069 → 3082

3071 → 3085

Data Entry Comments:

5 ml 4M HCL
35ml Con HLD3; 0.0 Solids; color light yellow
HPT: Jim Shumal *on: 5-mrad/hr* *Shelf 3*

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9469

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
-------	---------	--------	---------	-----	----------------	--------	--------	-------	----	------

Final page for worklist #

9469

Daniel S. Dinkler 7-16-96
Analyst Signature Date

R. Jones 7-18-96
Analyst Signature Date

Anna Lambert 07/16/96

Reviewed by RK Fuller
7/22/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9474

Analyst:

EAC

Instrument: FUS01

Book #

Method: LA-549-141 Rev/Mod

F.D

Worklist Comment: TANK#U-106,CORE 148,SEG 2UH,2LH,3UH, FUSION01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP		FUSION01	SOLID	<u>1</u>	<u>250</u>	N/A	g/L
96000643	U-106 (P)	2	SAMPLE S96T003026 0 F		FUSION01	SOLID	N/A	<u>2.0324</u>		g/L
			<u>.5056g</u> → <u>.2500</u>							
96000643	U-106 (P)	3	SAMPLE S96T003026 0		DOSE-02	SOLID	N/A	<u>125</u>		mrad/hour
			<u>.5122g</u> → <u>.2500</u>							
96000643	U-106 (P)	4	DUP S96T003026 0 F		FUSION01	SOLID	<u>2.0324</u>	<u>2.0478</u>	N/A	g/L
			<u>.5122g</u> → <u>.2500</u>							
96000643	U-106 (P)	5	DUP S96T003026 0		DOSE-02	SOLID	<u>125</u>	<u>125</u>	N/A	mrad/hour
96000643	U-106 (P)	6	SAMPLE S96T003029 0 F		FUSION01	SOLID	N/A	<u>2.0140</u>		g/L
			<u>.5035g</u> → <u>.2500</u>							
96000643	U-106 (P)	7	SAMPLE S96T003029 0		DOSE-02	SOLID	N/A	<u>80</u>		mrad/hour
96000643	U-106 (P)	8	DUP S96T003029 0 F		FUSION01	SOLID	<u>2.0140</u>	<u>2.0372</u>	N/A	g/L
			<u>.5073g</u> → <u>.2500</u>							
96000643	U-106 (P)	9	DUP S96T003029 0		DOSE-02	SOLID	<u>80</u>	<u>80</u>	N/A	mrad/hour
96000643	U-106 (P)	10	SAMPLE S96T003030 0 F		FUSION01	SOLID	N/A	<u>2.0372</u>		g/L
			<u>.5073g</u> → <u>.2500</u>							
96000643	U-106 (P)	11	SAMPLE S96T003030 0		DOSE-02	SOLID	N/A	<u>90</u>		mrad/hour
96000643	U-106 (P)	12	DUP S96T003030 0 F		FUSION01	SOLID	<u>2.0372</u>	<u>2.0440</u>	N/A	g/L
			<u>.5115g</u> → <u>.2500</u>							
96000643	U-106 (P)	13	DUP S96T003030 0		DOSE-02	SOLID	<u>90</u>	<u>90</u>	N/A	mrad/hour

*QC
failure
Dtt
7-18-96

*QC
failure

*QC
failure

*QC
failure

Final page for worklist #

9474

A. Lambel 07-17-96
Analyst Signature Date

Ditonaher 7-19-96
Analyst Signature Date
Reviewed By W/L DD
7/19/96

S96T003010 → 3026
3011 → 3029
3012 → 3030

Data Entry Comments:

5ml^{4M} HCL & 20ml Con HNO₃

color: Clear 0% Solids

APT: BILL BEEBOP DTT: 10 mrads/min & 125 mrads inside

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9475

Analyst: SW Instrument: FUS01 Book # NAMethod: LA-549-141 Rev/Mod F-0

Worklist Comment: TANK#U-106,CORE 148,SEG 3LH,4UH,4LH, FUSION01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<u>1</u>	<u>.250</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	2 SAMPLE	S96T003031	0 F	FUSION01	SOLID	<u>N/A</u>	<u>20488</u>		<u>g/L</u>
96000643	U-106 (P)	3 SAMPLE	S96T003031	0	DOSE-02	SOLID	<u>N/A</u>	<u>115</u>		<u>mrad/hour</u>
96000643	U-106 (P)	4 DUP	S96T003031	0 F	FUSION01	SOLID	<u>20488</u>	<u>2.0156</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	5 DUP	S96T003031	0	DOSE-02	SOLID	<u>115</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	6 SAMPLE	S96T003032	0 F	FUSION01	SOLID	<u>N/A</u>	<u>20644</u>		<u>g/L</u>
96000643	U-106 (P)	7 SAMPLE	S96T003032	0	DOSE-02	SOLID	<u>N/A</u>	<u>115</u>		<u>mrad/hour</u>
96000643	U-106 (P)	8 DUP	S96T003032	0 F	FUSION01	SOLID	<u>20644</u>	<u>20824</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	9 DUP	S96T003032	0	DOSE-02	SOLID	<u>115</u>	<u>115</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	10 SAMPLE	S96T003033	0 F	FUSION01	SOLID	<u>N/A</u>	<u>1.9892</u>		<u>g/L</u>
96000643	U-106 (P)	11 SAMPLE	S96T003033	0	DOSE-02	SOLID	<u>N/A</u>	<u>100</u>		<u>mrad/hour</u>
96000643	U-106 (P)	12 DUP	S96T003033	0 F	FUSION01	SOLID	<u>1.9892</u>	<u>2.0104</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	13 DUP	S96T003033	0	DOSE-02	SOLID	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>

Final page for worklist #

9475

Analyst Signature SW Date 7-18-96Analyst Signature Frank Conlin Date 7/19/96Julie M. Dalton
7-19-96
J. Dalton 7/20/96S96T003013 → 3031
3014 → 3032
3015 → 3033

Data Entry Comments:

Reviewed by PK Fella
7/20/96Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9476

Analyst: SK Instrument: FUS01 Book # NA

Method: LA-549-141 Rev/Mod F-0

Worklist Comment: TANK#U-106,CORE 148,SEG 5UH,5LH, FUSION01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PRP			FUSION01	SOLID	<u>1</u>	<u>250</u>	<u>N/A</u>	g/L
96000643	U-106 (P)	2 SAMPLE	S96T003034	0 F	FUSION01	SOLID	<u>N/A</u>	<u>20173</u>	<u>N/A</u>	g/L
		<u>0.5043g → .250g</u>								
96000643	U-106 (P)	3 SAMPLE	S96T003034	0	DOSE-02	SOLID	<u>N/A</u>	<u>50</u>	<u>N/A</u>	mrad/hour
96000643	U-106 (P)	4 DUP	S96T003034	0 F	FUSION01	SOLID	<u>20172</u>	<u>20532</u>	<u>N/A</u>	g/L
		<u>0.5133g → .250g</u>								
96000643	U-106 (P)	5 DUP	S96T003034	0	DOSE-02	SOLID	<u>50</u>	<u>50</u>	<u>N/A</u>	mrad/hour
96000643	U-106 (P)	6 SAMPLE	S96T003035	0 F	FUSION01	SOLID	<u>N/A</u>	<u>2144</u>	<u>N/A</u>	g/L
		<u>0.5360g → .250g</u>								
96000643	U-106 (P)	7 SAMPLE	S96T003035	0	DOSE-02	SOLID	<u>N/A</u>	<u>30</u>	<u>N/A</u>	mrad/hour
96000643	U-106 (P)	8 DUP	S96T003035	0 F	FUSION01	SOLID	<u>2144</u>	<u>20932</u>	<u>N/A</u>	g/L
		<u>0.5233g → .250g</u>								
96000643	U-106 (P)	9 DUP	S96T003035	0	DOSE-02	SOLID	<u>30</u>	<u>30</u>	<u>N/A</u>	mrad/hour

Final page for worklist #

9476

Analyst Signature Date

Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

Reviewed by PK Fells

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

10956

Analyst: JK Instrument: FUS01 Book # _____

Method: LA-549-141 Rev/Mod _____

Worklist Comment: U106 C147/148 COMP FUSION01 SKB

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<u>1</u>	<u>0.250</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	✓ 2 SAMPLE	S96T003878 .5170 → .250	0 F	FUSION01	SOLID	<u>N/A</u>	<u>2.068</u>		g/L
96000641	U-106 (P)	3 SAMPLE	S96T003878 0 F		DOSE-02	SOLID	<u>N/A</u>	<u>80</u>		mrad/hour
96000641	U-106 (P)	✓ 4 DUP	S96T003878 0 F .5230 → .250		FUSION01	SOLID	<u>2.068</u>	<u>2.092</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	5 DUP	S96T003878 0 F		DOSE-02	SOLID	<u>80</u>	<u>80</u>	<u>N/A</u>	mrad/hour
96000643	U-106 (P)	6 SAMPLE	S96T003884 0 F .5127 → .250		FUSION01	SOLID	<u>N/A</u>	<u>2.051</u>		g/L
96000643	U-106 (P)	7 SAMPLE	S96T003884 0 F		DOSE-02	SOLID	<u>N/A</u>	<u>80</u>		mrad/hour
96000643	U-106 (P)	8 DUP	S96T003884 0 F .5714 → .250		FUSION01	SOLID	<u>2.051</u>	<u>2.285</u>	<u>N/A</u>	g/L
96000643	U-106 (P)	9 DUP	S96T003884 0 F		DOSE-02	SOLID	<u>80</u>	<u>75</u>	<u>N/A</u>	mrad/hour

Final page for worklist #

10956

JK 8/19/96
Analyst Signature Date

T.R. O'Leary 08-21-96
Analyst Signature Date

96T003876 → 3878
3882 → 3884

Data Entry Comments:

submitted by RMCcown 8/20/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9471

Analyst: DCD Instrument: H2001 Book # 11/A

Method: LA-504-101 Rev/Mod E.O

Worklist Comment: TANK#U-106,CORE 147,SEG 2UH,3UH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	1	100	N/A	g/L
96000641	U-106 (P)	2 SAMPLE 0.5091g → 1.100g	S96T003093 0 W		H2ODIG01	SOLID	N/A	5.091		g/L
96000641	U-106 (P)	3 SAMPLE	S96T003093 0		DOSE-02	SOLID	N/A	75		mrad/hour
96000641	U-106 (P)	4 DUP 0.5113g → 1.100g	S96T003093 0 W		H2ODIG01	SOLID	5.091	5.113	N/A	g/L
96000641	U-106 (P)	5 DUP	S96T003093 0		DOSE-02	SOLID	75	75	N/A	mrad/hour
96000641	U-106 (P)	6 SAMPLE 0.5149g → 1.100g	S96T003094 0 W		H2ODIG01	SOLID	N/A	5.149		g/L
96000641	U-106 (P)	7 SAMPLE	S96T003094 0		DOSE-02	SOLID	N/A	75		mrad/hour
96000641	U-106 (P)	8 DUP 0.5022g → 1.000g	S96T003094 0 W		H2ODIG01	SOLID	5.149	5.022	N/A	g/L
96000641	U-106 (P)	9 DUP	S96T003094 0		DOSE-02	SOLID	75	75	N/A	mrad/hour

Final page for worklist #

9471

David D. Lambel 7-16-96
Analyst Signature Date
07-17-96
\$96T003065 → 3093
3066 → 3094

Detmehn 7-18-96
Analyst Signature Date
Reviewed By WPL 7/18/96

Data Entry Comments:

HPT: Joe Valdez R.K. Full 7/22/96
refridge #3

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9472

Analyst: DCD Instrument: H2001 Book # N/A

Method: LA-504-101 Rev/Mod F-0

Worklist Comment: TANK#U-106,CORE 147,SEG 3LH,4UH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	<u>1</u>	<u>.100</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	2 SAMPLE	S96T003095 0 W		H2ODIG01	SOLID	<u>N/A</u>	<u>5.109</u>		g/L
		<u>0.5109 g</u> → <u>.1002</u>								
96000641	U-106 (P)	3 SAMPLE	S96T003095 0		DOSE-02	SOLID	<u>N/A</u>	<u>80</u>		mrad/hour
96000641	U-106 (P)	4 DUP	S96T003095 0 W		H2ODIG01	SOLID	<u>5.109</u>	<u>5.109</u>	<u>N/A</u>	g/L
		<u>0.5109 g</u> → <u>.1002</u>								
96000641	U-106 (P)	5 DUP	S96T003095 0		DOSE-02	SOLID	<u>80</u>	<u>75</u>	<u>N/A</u>	mrad/hour
96000641	U-106 (P)	6 SAMPLE	S96T003096 0 W		H2ODIG01	SOLID	<u>N/A</u>	<u>5.098</u>		g/L
		<u>0.5018 g</u> → <u>.1002</u>								
96000641	U-106 (P)	7 SAMPLE	S96T003096 0		DOSE-02	SOLID	<u>N/A</u>	<u>75</u>		mrad/hour
96000641	U-106 (P)	8 DUP	S96T003096 0 W		H2ODIG01	SOLID	<u>5.098</u>	<u>5.076</u>	<u>N/A</u>	g/L
		<u>0.5018 g</u> → <u>.1002</u>								
96000641	U-106 (P)	9 DUP	S96T003096 0		DOSE-02	SOLID	<u>75</u>	<u>75</u>	<u>N/A</u>	mrad/hour

Final page for worklist #

9472

Daniel D. Dineen 7-16-96
Analyst Signature Date
U. Lambel 07.17.96

D. Toranzo 7-18-96
Analyst Signature Date
Reviewed By M/L 7/18/96

Data Entry Comments:

HPT

RK Full

w/ fridge #3 7/22/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9473

Analyst: DGD, KNT Instrument: H2001 Book # N/AMethod: LA-504-101 Rev/Mod E-D

Worklist Comment: TANK#U-106,CORE 147,SEG 4LH,5UH,5LH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	<u>1</u>	<u>.100</u>	<u>N/A</u>	<u>g/L</u>
96000641	U-106 (P)	2 SAMPLE <u>0.5124g</u>	S96T003097 0 W <u>→ .100L</u>		H2ODIG01	SOLID	<u>N/A</u>	<u>5.124</u>		<u>g/L</u>
96000641	U-106 (P)	3 SAMPLE	S96T003097 0		DOSE-02	SOLID	<u>N/A</u>	<u>50</u>		<u>mrad/hour</u>
96000641	U-106 (P)	4 DUP <u>0.5089g</u>	S96T003097 0 W <u>→ .100L</u>		H2ODIG01	SOLID	<u>5.124</u>	<u>5.089</u>	<u>N/A</u>	<u>g/L</u>
96000641	U-106 (P)	5 DUP	S96T003097 0		DOSE-02	SOLID	<u>50</u>	<u>50</u>	<u>N/A</u>	<u>mrad/hour</u>
96000641	U-106 (P)	6 SAMPLE <u>0.5026g</u>	S96T003098 0 W <u>→ .100L</u>		H2ODIG01	SOLID	<u>N/A</u>	<u>5.026</u>		<u>g/L</u>
96000641	U-106 (P)	7 SAMPLE	S96T003098 0		DOSE-02	SOLID	<u>N/A</u>	<u>50</u>		<u>mrad/hour</u>
96000641	U-106 (P)	8 DUP <u>0.5009g</u>	S96T003098 0 W <u>→ .100L</u>		H2ODIG01	SOLID	<u>5.026</u>	<u>5.009</u>	<u>N/A</u>	<u>g/L</u>
96000641	U-106 (P)	9 DUP	S96T003098 0		DOSE-02	SOLID	<u>50</u>	<u>50</u>	<u>N/A</u>	<u>mrad/hour</u>
96000641	U-106 (P)	10 SAMPLE <u>0.5086g</u>	S96T003099 0 W <u>→ .100L</u>		H2ODIG01	SOLID	<u>N/A</u>	<u>5.086</u>		<u>g/L</u>
96000641	U-106 (P)	11 SAMPLE	S96T003099 0		DOSE-02	SOLID	<u>N/A</u>	<u>25</u>		<u>mrad/hour</u>
96000641	U-106 (P)	12 DUP <u>0.5196g</u>	S96T003099 0 W <u>→ .100L</u>		H2ODIG01	SOLID	<u>5.086</u>	<u>5.196</u>	<u>N/A</u>	<u>g/L</u>
96000641	U-106 (P)	13 DUP	S96T003099 0		DOSE-02	SOLID	<u>25</u>	<u>25</u>	<u>N/A</u>	<u>mrad/hour</u>

Final page for worklist #

9473

David J. Dink 7-16-96
Analyst Signature Date

KIM Thomas

7-18-96

S96T003068 →

RL Jones 7-19-96
Analyst Signature Date

Reviewed By M/L

7/19/96

Data Entry Comments:

APT: Bob Clements & Bill Bishop RK rule

RK rule 7/22/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9479

Analyst: gml Instrument: H2001 Book # 1/1

Method: LA-504-101 Rev/Mod E.O

Worklist Comment: TANK#U-106,CORE 148,SEG 2UH,2LH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	<u>1</u>	<u>.100</u>	<u>N/A</u>	g/L
96000643	U-106 (P)	2 SAMPLE	S96T003028 0 W		H2ODIG01	SOLID	<u>N/A</u>	<u>5.002</u>		g/L
96000643	U-106 (P)	3 SAMPLE	S96T003028 0		DOSE-02	SOLID	<u>N/A</u>	<u>50</u>		mrad/hour
96000643	U-106 (P)	4 DUP	S96T003028 0 W		H2ODIG01	SOLID	<u>5.002</u>	<u>5.029</u>	<u>N/A</u>	g/L
96000643	U-106 (P)	5 DUP	S96T003028 0		DOSE-02	SOLID	<u>50</u>	<u>50</u>	<u>N/A</u>	mrad/hour * QC failure
96000643	U-106 (P)	6 SAMPLE	S96T003043 0 W		H2ODIG01	SOLID	<u>N/A</u>	<u>5.079</u>		g/L
96000643	U-106 (P)	7 SAMPLE	S96T003043 0		DOSE-02	SOLID	<u>N/A</u>	<u>50</u>		mrad/hour
96000643	U-106 (P)	8 DUP	S96T003043 0 W		H2ODIG01	SOLID	<u>5.079</u>	<u>5.024</u>	<u>N/A</u>	g/L
96000643	U-106 (P)	9 DUP	S96T003043 0		DOSE-02	SOLID	<u>50</u>	<u>50</u>	<u>N/A</u>	mrad/hour * QC failure

Final page for worklist #

9479

Analyst Signature A. Sempel Date 7-18-96

Analyst Signature R. Thomas Date 7-19-96

Kim Thomas 7-18-96

Reviewed By M/L Date 7/19/96

596T003010 → 3028
3011 → 3043

Data Entry Comments: HPT. BILL BISHOP

RK Full
7/22/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9480

Analyst: Jul Instrument: H2O01 Book # _____Method: LA-504-101 Rev/Mod E-0

Worklist Comment: TANK#U-106,CORE 148,SEG 3UH,3LH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	<u>1</u>	<u>100</u>	N/A	g/L
96000643	U-106 (P)	2 SAMPLE	S96T003044 0 W		H2ODIG01	SOLID	N/A	<u>5.080</u>		g/L
			<u>5080g → .100p</u>							
96000643	U-106 (P)	3 SAMPLE	S96T003044 0		DOSE-02	SOLID	N/A	<u>100</u>		mrads/hour
96000643	U-106 (P)	4 DUP	S96T003044 0 W		H2ODIG01	SOLID	<u>5.080</u>	<u>5.114</u>	N/A	g/L
			<u>5114g → .100p</u>							
96000643	U-106 (P)	5 DUP	S96T003044 0		DOSE-02	SOLID	<u>100</u>	<u>100</u>	N/A	mrads/hour
										* QC failure
96000643	U-106 (P)	6 SAMPLE	S96T003045 0 W		H2ODIG01	SOLID	N/A	<u>5.040</u>		g/L
			<u>5040g → .100p</u>							
96000643	U-106 (P)	7 SAMPLE	S96T003045 0		DOSE-02	SOLID	N/A	<u>100</u>		mrads/hour
96000643	U-106 (P)	8 DUP	S96T003045 0 W		H2ODIG01	SOLID	<u>5.040</u>	<u>5.012</u>	N/A	g/L
			<u>5012g → .100p</u>							
96000643	U-106 (P)	9 DUP	S96T003045 0		DOSE-02	SOLID	<u>100</u>	<u>100</u>	N/A	mrads/hour
										* QC failure

Final page for worklist #

9480

Analyst Signature Kim Thomas Date 07-18-96Analyst Signature Dotonahy Date 7-18-96Reviewed By M/L 7/19/96S96T003012 → 3044
3013 → 3045

Data Entry Comments:

RK Full 7/22/96Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9481

Analyst: Joe Instrument: H2O01 Book # _____Method: LA-504-101 Rev/Mod E-O

Worklist Comment: TANK#U-106,CORE 148,SEG 4UH,4LH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	1	.100	N/A	g/L
96000643	U-106 (P)	2 SAMPLE	S96T003046 0 W		H2ODIG01	SOLID	N/A	5.022		g/L
96000643	U-106 (P)	3 SAMPLE	S96T003046 0		DOSE-02	SOLID	N/A	90		mrad/hour
96000643	U-106 (P)	4 DUP	S96T003046 0 W		H2ODIG01	SOLID	5.022	5.075	N/A	g/L
96000643	U-106 (P)	5 DUP	S96T003046 0		DOSE-02	SOLID	90	90	N/A	mrad/hour
96000643	U-106 (P)	6 SAMPLE	S96T003047 0 W		H2ODIG01	SOLID	N/A	4.948		g/L
96000643	U-106 (P)	7 SAMPLE	S96T003047 0		DOSE-02	SOLID	N/A	90		mrad/hour
96000643	U-106 (P)	8 DUP	S96T003047 0 W		H2ODIG01	SOLID	4.948	5.049	N/A	g/L
96000643	U-106 (P)	9 DUP	S96T003047 0		DOSE-02	SOLID	90	90	N/A	mrad/hour

Final page for worklist #

9481

A. Langel 07-18-96
Analyst Signature Date
Kim Thomas 7-18-96

D. H. Hahn 7-19-96
Analyst Signature Date
Reviewed By M/L 7/19/96

296700 3014 → 3046
3015 → 3047

RK Fulla 7/21/96

Data Entry Comments:

HPT: Bob Clements

OTT: 10 mrad/hr

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9482

Analyst: EAL Instrument: H2O01 Book # _____

Method: LA-504-101 Rev/Mod _____

Worklist Comment: TANK#U-106,CORE 148,SEG 5UH,5LH, H2ODIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	<u>1</u>	<u>1</u>	N/A	g/L
96000643	U-106 (P)	2 SAMPLE <i>0.5336g → .1L</i>	S96T003048 0 W		H2ODIG01	SOLID	N/A	<u>5.336</u>		g/L
96000643	U-106 (P)	3 SAMPLE	S96T003048 0		DOSE-02	SOLID	N/A	<u>25</u>		mrad/hour
96000643	U-106 (P)	4 DUP <i>0.5127g → .1L</i>	S96T003048 0 W		H2ODIG01	SOLID	<u>5.336</u>	<u>5.127</u>	N/A	g/L
96000643	U-106 (P)	5 DUP	S96T003048 0		DOSE-02	SOLID	<u>25</u>	<u>25</u>	N/A	mrad/hour
96000643	U-106 (P)	6 SAMPLE <i>0.5229g → .1L</i>	S96T003049 0 W		H2ODIG01	SOLID	N/A	<u>5.229</u>		g/L
96000643	U-106 (P)	7 SAMPLE	S96T003049 0		DOSE-02	SOLID	N/A	<u>20</u>		mrad/hour
96000643	U-106 (P)	8 DUP <i>0.5731g → .1L</i>	S96T003049 0 W		H2ODIG01	SOLID	<u>5.229</u>	<u>5.131</u>	N/A	g/L
96000643	U-106 (P)	9 DUP	S96T003049 0		DOSE-02	SOLID	<u>20</u>	<u>25</u>	N/A	mrad/hour

Final page for worklist #

9482

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Reviewed by RK Fuller
7/22/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

10958

Analyst: RK Instrument: H2001 Book # _____

Method: LA-504-101 Rev/Mod _____

Worklist Comment: U106 C147/148 COMP H2ODIG01/H2OICP01 SKB

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID	<u>1</u>	<u>0.100</u>	<u>N/A</u>	g/L
96000641	U-106 (P)	2 SAMPLE	S96T003879	0 W	H2ODIG01	SOLID	<u>N/A</u>	<u>5.300</u>		g/L
			5300		100 L					
96000641	U-106 (P)	3 SAMPLE	S96T003879	0 W	DOSE-02	SOLID	<u>N/A</u>	<u>60</u>		mrad/hour
96000641	U-106 (P)	4 DUP	S96T003879	0 W	H2ODIG01	SOLID	<u>5.300</u>	<u>5.030</u>	<u>N/A</u>	g/L
			5030		100 L					
96000641	U-106 (P)	5 DUP	S96T003879	0 W	DOSE-02	SOLID	<u>60</u>	<u>50</u>	<u>N/A</u>	mrad/hour
96000641	U-106 (P)	6 SAMPLE	S96T003880	0 I	H2OICP01	SOLID	<u>N/A</u>	<u>5.163</u>		g/L
			5300 ÷ 1.0266							
96000641	U-106 (P)	7 SAMPLE	S96T003880	0 I	DOSE-02	SOLID	<u>N/A</u>	<u>20</u>		mrad/hour
96000641	U-106 (P)	8 DUP	S96T003880	0 I	H2OICP01	SOLID	<u>5.163</u>	<u>4.900</u>	<u>N/A</u>	g/L
			5030 ÷ 1.0266							
96000641	U-106 (P)	9 DUP	S96T003880	0 I	DOSE-02	SOLID	<u>20</u>	<u>20</u>	<u>N/A</u>	mrad/hour
96000643	U-106 (P)	10 SAMPLE	S96T003885	0 W	H2ODIG01	SOLID	<u>N/A</u>	<u>5.280</u>		g/L
			5280		100 L					
96000643	U-106 (P)	11 SAMPLE	S96T003885	0 W	DOSE-02	SOLID	<u>N/A</u>	<u>50</u>		mrad/hour
96000643	U-106 (P)	12 DUP	S96T003885	0 W	H2ODIG01	SOLID	<u>5.280</u>	<u>5.185</u>	<u>N/A</u>	g/L
			5185		100 L					
96000643	U-106 (P)	13 DUP	S96T003885	0 W	DOSE-02	SOLID	<u>50</u>	<u>50</u>	<u>N/A</u>	mrad/hour
96000643	U-106 (P)	14 SAMPLE	S96T003886	0 I	H2OICP01	SOLID	<u>N/A</u>	<u>5.143</u>		g/L
			5180 ÷ 1.0266							
96000643	U-106 (P)	15 SAMPLE	S96T003886	0 I	DOSE-02	SOLID	<u>N/A</u>	<u>20</u>		mrad/hour
96000643	U-106 (P)	16 DUP	S96T003886	0 I	H2OICP01	SOLID	<u>5.143</u>	<u>5.051</u>	<u>N/A</u>	g/L
			5185 ÷ 1.0266							
96000643	U-106 (P)	17 DUP	S96T003886	0 I	DOSE-02	SOLID	<u>20</u>	<u>15</u>	<u>N/A</u>	mrad/hour

596T003876 → 3879 → 3880
3882 → 3885 → 3886

Data Entry Comments:

Submitted by R. McCoun 8/6/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

10958

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
-------	---------	--------	---------	-----	----------------	--------	--------	-------	----	------

Final page for worklist #

10958

Rob Ring 8/19/96
Analyst Signature Date

TR06 08-21-96
Analyst Signature Date

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9470

Analyst: DCD Instrument: ACD01 Book # _____

Method: LA-505-159 Rev/Mod D-O

Worklist Comment: TANK#U-106,CORE 147,SEG 2UH,3UH,3LH,4UH,4LH,5UH,5LH, ACIDIG

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			ACIDIG01	SOLID	<u>1</u>	<u>.050</u>	N/A	g/L
		2 STD-PREP			ACIDIG01	SOLID	<u>20</u>	<u>20</u>	RK7	7/18/96
							<u>+</u>	<u>.050</u>	N/A	DK 7/18/96
96000641	U-106 (P)	3 SAMPLE	S96T003086	0 A	ACIDIG01	SOLID	N/A	<u>5.0200</u>		g/L
			.2510g → .050g							
96000641	U-106 (P)	4 SAMPLE	S96T003086	0	DOSE-02	SOLID	N/A	<u>110</u>		mrad/hour
96000641	U-106 (P)	5 DUP	S96T003086	0 A	ACIDIG01	SOLID	<u>5.0200</u>	<u>5.0060</u>	N/A	g/L
			.2503g → .050g							
96000641	U-106 (P)	6 DUP	S96T003086	0	DOSE-02	SOLID	<u>110</u>	<u>110</u>	N/A	mrad/hour
							<u>20</u>	<u>20</u>		DK
96000641	U-106 (P)	7 SPK	S96T003086	0 A	ACIDIG01	SOLID	N/A	<u>4.9600</u>	N/A	g/L
			.2480g → .050g							
96000641	U-106 (P)	8 SPK	S96T003086	0	DOSE-02	SOLID	<u>NA</u>	<u>110</u>	N/A	mrad/hour
96000641	U-106 (P)	9 SAMPLE	S96T003087	0 A	ACIDIG01	SOLID	N/A	<u>5.0260</u>		g/L
			.2513g → .050g							
96000641	U-106 (P)	10 SAMPLE	S96T003087	0	DOSE-02	SOLID	N/A	<u>80</u>		mrad/hour
96000641	U-106 (P)	11 DUP	S96T003087	0 A	ACIDIG01	SOLID	<u>5.0260</u>	<u>5.0260</u>	N/A	g/L
			.2513g → .050g							
96000641	U-106 (P)	12 DUP	S96T003087	0	DOSE-02	SOLID	<u>80</u>	<u>80</u>	N/A	mrad/hour
96000641	U-106 (P)	13 SAMPLE	S96T003088	0 A	ACIDIG01	SOLID	N/A	<u>5.1880</u>		g/L
			.2594g → .050g							
96000641	U-106 (P)	14 SAMPLE	S96T003088	0	DOSE-02	SOLID	N/A	<u>110</u>		mrad/hour
96000641	U-106 (P)	15 DUP	S96T003088	0 A	ACIDIG01	SOLID	<u>5.1880</u>	<u>5.0480</u>	N/A	g/L
			.2524g → .050g							
96000641	U-106 (P)	16 DUP	S96T003088	0	DOSE-02	SOLID	<u>110</u>	<u>110</u>	N/A	mrad/hour
							<u>20</u>	<u>20</u>		DK
96000641	U-106 (P)	17 SPK	S96T003088	0 A	ACIDIG01	SOLID	<u>NA</u>	<u>5.0360</u>	N/A	g/L
			.2518g → .050g							
96000641	U-106 (P)	18 SPK	S96T003088	0	DOSE-02	SOLID	<u>NA</u>	<u>110</u>	N/A	mrad/hour

Data Entry Comments:

#PT: Joe Valdez
Shuff #3

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9470

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
96000641	U-106 (P)	19 SAMPLE	S96T003089	0 A	ACIDIG01	SOLID	N/A	5.1100		g/L
			.2555g →	.050 g						
96000641	U-106 (P)	20 SAMPLE	S96T003089	0	DOSE-02	SOLID	N/A	75		mrads/hour
96000641	U-106 (P)	21 DUP	S96T003089	0 A	ACIDIG01	SOLID	5.1100	4.9920	N/A	g/L
			.2496g →	.050 g						
96000641	U-106 (P)	22 DUP	S96T003089	0	DOSE-02	SOLID	75	75	N/A	mrads/hour
96000641	U-106 (P)	23 SAMPLE	S96T003090	0 A	ACIDIG01	SOLID	N/A	5.0680		g/L
			.2534g →	.050 g						
96000641	U-106 (P)	24 SAMPLE	S96T003090	0	DOSE-02	SOLID	N/A	90		mrads/hour
96000641	U-106 (P)	25 DUP	S96T003090	0 A	ACIDIG01	SOLID	5.0680	5.1020	N/A	g/L
			.2551g →	.050 g						
96000641	U-106 (P)	26 DUP	S96T003090	0	DOSE-02	SOLID	90	90	N/A	mrads/hour
96000641	U-106 (P)	27 SAMPLE	S96T003091	0 A	ACIDIG01	SOLID	N/A	5.1480		g/L
			.2574g →	.050 g						
96000641	U-106 (P)	28 SAMPLE	S96T003091	0	DOSE-02	SOLID	N/A	60		mrads/hour
96000641	U-106 (P)	29 DUP	S96T003091	0 A	ACIDIG01	SOLID	5.1480	5.0600	N/A	g/L
			.2530g →	.050 g						
96000641	U-106 (P)	30 DUP	S96T003091	0	DOSE-02	SOLID	60	60	N/A	mrads/hour
96000641	U-106 (P)	31 SAMPLE	S96T003092	0 A	ACIDIG01	SOLID	N/A	5.0340		g/L
			.2577g →	.050 g						
96000641	U-106 (P)	32 SAMPLE	S96T003092	0	DOSE-02	SOLID	N/A	65		mrads/hour
96000641	U-106 (P)	33 DUP	S96T003092	0 A	ACIDIG01	SOLID	5.0340	5.0020	N/A	g/L
			.2509g →	.050 g						
96000641	U-106 (P)	34 DUP	S96T003092	0	DOSE-02	SOLID	65	65	N/A	mrads/hour
96000641	U-106 (P)	35 SPK	S96T003092	0 A	ACIDIG01	SOLID	N/A	5.1120	N/A	g/L
			.2546g →	.050 g						
96000641	U-106 (P)	36 SPK	S96T003092	0	DOSE-02	SOLID	NA	65	N/A	mrads/hour

Final page for worklist #

9470

David D. Smith 7-16-96
Analyst Signature Date
SMC/Hen 7-17-96

Data Entry Comments:

Keith Luller for Steve Peterson
Analyst Signature Date 7/18/96
Reviewed By *WPL* 7/19/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9470

GROUP	PROJECT	S TYPE	SAMPLE#	R A -----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
-------	---------	--------	---------	--------------------	--------	--------	-------	----	------

594T00 3065 → 3086
3066 → 3087
3070 → 3088
3067 → 3089
3068 → 3090
3069 → 3091
3071 → 3092

Note: All stds / Spikes - 20 dilution factor.

PK Fuller
7/18/96

Data Entry Comments:

PK Fuller 7/22/96

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9477

Analyst: JLF Instrument: ACD01 Book # WHC1A/WHC2

Method: LA-505-159 Rev/Mod _____

Worklist Comment: TANK#U-106,CORE 148,SEG 2UH,2LH,3UH,3LH, ACIDIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			ACIDIG01	SOLID	<u>1</u>	<u>0.050</u>	N/A	g/L
		2 STD-PREP			ACIDIG01	SOLID	<u>2520</u>	<u>20</u>	N/A	g/L
96000643	U-106 (P)	3 SAMPLE	S96T003027	0 A	ACIDIG01	SOLID	N/A	<u>4.346</u>	N/A	g/L
			<u>1,2173g</u>							
96000643	U-106 (P)	4 SAMPLE	S96T003027	0	DOSE-02	SOLID	N/A	<u>75</u>		mrad/hour
96000643	U-106 (P)	5 DUP	S96T003027	0 A	ACIDIG01	SOLID	<u>4.346</u>	<u>4.304</u>	N/A	g/L
			<u>1,2152g</u>							
96000643	U-106 (P)	6 DUP	S96T003027	0	DOSE-02	SOLID	<u>75</u>	<u>75</u>	N/A	mrad/hour
96000643	U-106 (P)	7 SPK	S96T003027	0 A	ACIDIG01	SOLID	N/A	<u>4.064</u>	N/A	g/L
			<u>1,2032g</u>							
96000643	U-106 (P)	8 SPK	S96T003027	0	DOSE-02	SOLID	N/A	<u>80</u>	N/A	mrad/hour
96000643	U-106 (P)	9 SAMPLE	S96T003036	0 A	ACIDIG01	SOLID	N/A	<u>4.226</u>	N/A	g/L
			<u>1,2113g</u>							
96000643	U-106 (P)	10 SAMPLE	S96T003036	0	DOSE-02	SOLID	N/A	<u>80</u>		mrad/hour
96000643	U-106 (P)	11 DUP	S96T003036	0 A	ACIDIG01	SOLID	<u>4.226</u>	<u>4.096</u>	N/A	g/L
			<u>1,2048g</u>							
96000643	U-106 (P)	12 DUP	S96T003036	0	DOSE-02	SOLID	<u>80</u>	<u>90</u>	N/A	mrad/hour
96000643	U-106 (P)	13 SPK	S96T003036	0 A	ACIDIG01	SOLID	N/A	<u>4.072</u>	N/A	g/L
			<u>1,2036g</u>							
96000643	U-106 (P)	14 SPK	S96T003036	0	DOSE-02	SOLID	N/A	<u>80</u>	N/A	mrad/hour
96000643	U-106 (P)	15 SAMPLE	S96T003037	0 A	ACIDIG01	SOLID	N/A	<u>4.508</u>	N/A	g/L
			<u>1,2254g</u>							
96000643	U-106 (P)	16 SAMPLE	S96T003037	0	DOSE-02	SOLID	N/A	<u>50</u>		mrad/hour
96000643	U-106 (P)	17 DUP	S96T003037	0 A	ACIDIG01	SOLID	<u>4.508</u>	<u>4.378</u>	N/A	g/L
			<u>1,2189g</u>							
96000643	U-106 (P)	18 DUP	S96T003037	0	DOSE-02	SOLID	<u>50</u>	<u>50</u>	N/A	mrad/hour

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9477

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000643	U-106 (P)	19 SAMPLE	S96T003038	0 A	ACID1G01	SOLID	N/A	4.156		g/L
96000643	U-106 (P)	20 SAMPLE	S96T003038	0	DOSE-02	SOLID	N/A	50		mrad/hour
96000643	U-106 (P)	21 DUP	S96T003038	0 A	ACID1G01	SOLID	4.156	4.064	N/A	g/L
96000643	U-106 (P)	22 DUP	S96T003038	0	DOSE-02	SOLID	50	50	N/A	mrad/hour

Final page for worklist #

9477

[Signature] 7/18/96
 Analyst Signature Date

[Signature] 7-19-96
 Analyst Signature Date
 Reviewed By M/L [Signature]
 7/19/96

296T 003010 → 3027
 3011 → 3036
 3012 → 3037
 3013 → 3038

DF for all spikes is 20

Data Entry Comments:

[Signature] 7/22/96

LABCORE Data Entry Template for Worklist#

9478

Analyst: JLF Instrument: ACD01 Book # WHC1A/WHC2Method: LA-505-159 Rev/Mod F-O

Worklist Comment: TANK#U-106,CORE 148,SEG 4UH,4LH,5UH,5LH, ACIDIG01 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			ACIDIG01	SOLID	<u>1</u>	<u>.050</u>	<u>N/A</u>	<u>g/L</u>
		2 STD-PREP			ACIDIG01	SOLID	<u>20</u>	<u>20</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	3 SAMPLE	S96T003039 0 A		ACIDIG01	SOLID	<u>N/A</u>	<u>4.974</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	4 SAMPLE	S96T003039 0		DOSE-02	SOLID	<u>N/A</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	5 DUP	S96T003039 0 A		ACIDIG01	SOLID	<u>4.974</u>	<u>5.036</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	6 DUP	S96T003039 0		DOSE-02	SOLID	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	7 SPK	S96T003039 0 A		ACIDIG01	SOLID	<u>N/A</u>	<u>5.12</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	8 SPK	S96T003039 0		DOSE-02	SOLID	<u>N/A</u>	<u>115</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	9 SAMPLE	S96T003040 0 A		ACIDIG01	SOLID	<u>N/A</u>	<u>4.95</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	10 SAMPLE	S96T003040 0		DOSE-02	SOLID	<u>N/A</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	11 DUP	S96T003040 0 A		ACIDIG01	SOLID	<u>4.95</u>	<u>5.164</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	12 DUP	S96T003040 0		DOSE-02	SOLID	<u>90</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	13 SPK	S96T003040 0 A		ACIDIG01	SOLID	<u>N/A</u>	<u>4.966</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	14 SPK	S96T003040 0		DOSE-02	SOLID	<u>N/A</u>	<u>100</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	15 SAMPLE	S96T003041 0 A		ACIDIG01	SOLID	<u>N/A</u>	<u>4.67</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	16 SAMPLE	S96T003041 0		DOSE-02	SOLID	<u>N/A</u>	<u>40</u>	<u>N/A</u>	<u>mrad/hour</u>
96000643	U-106 (P)	17 DUP	S96T003041 0 A		ACIDIG01	SOLID	<u>4.67</u>	<u>4.324</u>	<u>N/A</u>	<u>g/L</u>
96000643	U-106 (P)	18 DUP	S96T003041 0		DOSE-02	SOLID	<u>40</u>	<u>40</u>	<u>N/A</u>	<u>mrad/hour</u>

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist#

9478

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000643	U-106 (P)	19 SPK	S96T003041	0 A	ACIDIG01	SOLID	N/A	4.522	N/A	g/L
		0.2261g → 0.050								
96000643	U-106 (P)	20 SPK	S96T003041	0	DOSE-02	SOLID	N/A	25	N/A	mrads/hour
96000643	U-106 (P)	21 SAMPLE	S96T003042	0 A	ACIDIG01	SOLID	N/A	4.078		g/L
		0.2039g → 0.050								
96000643	U-106 (P)	22 SAMPLE	S96T003042	0	DOSE-02	SOLID	N/A	25		mrads/hour
96000643	U-106 (P)	23 DUP	S96T003042	0 A	ACIDIG01	SOLID	4.078	4.594	N/A	g/L
		0.2297g → 0.050								
96000643	U-106 (P)	24 DUP	S96T003042	0	DOSE-02	SOLID	25	25	N/A	mrads/hour

Final page for worklist #

9478

[Signature] 7/18/96
 Analyst Signature Date
[Signature] 7/20/96

[Signature] 7/21/96
 Analyst Signature Date

596T003014 → 3039
 3015 → 3040
 3016 → 3041
 3017 → 3042

Reviewed by RK Fuller
 7/22/96

Data Entry Comments: *[Signature]* QC FAILED.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
 R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
07/19/96 10:33

Page: 1

LABCORE Data Entry Template for Worklist#

10957

Analyst: RK KCH Instrument: ACD01Book # WHC-1A
WHC-2

Method: LA-505-159 Rev/Mod

Worklist Comment: U106 C147/148 COMP ACIDIG01 SKB

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP		ACIDIG01	SOLID	<u>1</u>	<u>.050</u>	N/A	g/L
		2	STD-PREP		ACIDIG01	SOLID	<u>20</u>	<u>20</u>	N/A	g/L
96000643	U-106 (P)	3	SAMPLE	S96T003887	0 A	ACIDIG01	N/A	<u>5.100</u> <u>2.550</u>	N/A	g/L
96000643	U-106 (P)	4	SAMPLE	S96T003887	0 A	DOSE-02	N/A	<u>80</u>	N/A	mmrad/hour
96000643	U-106 (P)	5	DUP	S96T003887	0 A	ACIDIG01	N/A	<u>5.100</u> <u>2.550</u>	N/A	g/L
96000643	U-106 (P)	6	DUP	S96T003887	0 A	DOSE-02	N/A	<u>80</u>	N/A	mmrad/hour
96000643	U-106 (P)	7	SPK	S96T003887	0 A	ACIDIG01	N/A	<u>5.100</u> <u>2.550</u>	N/A	g/L
96000643	U-106 (P)	8	SPK	S96T003887	0 A	DOSE-02	N/A	<u>80</u>	N/A	mmrad/hour
96000641	U-106 (P)	9	SAMPLE	S96T003888	0 A	ACIDIG01	N/A	<u>5.110</u>	N/A	g/L
96000641	U-106 (P)	10	SAMPLE	S96T003888	0 A	DOSE-02	N/A	<u>80</u>	N/A	mmrad/hour
96000641	U-106 (P)	11	DUP	S96T003888	0 A	ACIDIG01	N/A	<u>5.110</u>	N/A	g/L
96000641	U-106 (P)	12	DUP	S96T003888	0 A	DOSE-02	N/A	<u>80</u>	N/A	mmrad/hour
96000641	U-106 (P)	13	SPK	S96T003888	0 A	ACIDIG01	N/A	<u>5.430</u>	N/A	g/L
96000641	U-106 (P)	14	SPK	S96T003888	0 A	DOSE-02	N/A	<u>95</u>	N/A	mmrad/hour

Final page for worklist #

10957

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

546T003882 → 3887
3876 → 3888Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

WHC-SD-WM-DP-191, REV. 1

BULK DENSITY WORKLISTS

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

Bulk Density Worksheet

Requestor: E. STEEN

Tank: 11-166
Core: 147
Seg: 3 LH
Auger: —
Sample ID: —

Start Time: —
End Time: —
Homogenization Time (Min.): —

Jar#: 10191
Jar/Vial Size: 250 mL
Initial Weight: — g
Final Weight: 16.4 g
Net Weight: 16.4 g

Cone#: 191
Final Vol: 11.0 mL
Initial Weight: 7.7 g
Final Weight: 24.1 g
Net Weight: 16.4 g
Sample ID: 576002947

Appearance/Narrative: BLK DR-161 = 1.4 / 11.0

1.49 g/cc

Tank: —
Core: —
Seg: —
Auger: —
Sample ID: —

Start Time: —
End Time: —
Homogenization Time (Min.): —

Jar#: —
Jar/Vial Size: — mL
Initial Weight: — g
Final Weight: — g
Net Weight: — g

Cone#: 61
Final Vol: 22 mL
Initial Weight: — g
Final Weight: 17 g
Net Weight: — g
Sample ID: —

Appearance/Narrative: —

BEST AVAILABLE COPY

Date: 6/22/96

WHC-SD-WM-DP-191, REV. 1

Bulk Density Worksheet

Requestor: STEEN

Date: 6-21-96

Tank: 4-46
Core: 147
Seg: 4 LH
Auger: —
Sample ID: —

Tank: 4-106
Core: 147
Seg: 4 LH
Auger: —
Sample ID: —

Start Time: —
End Time: —
Homogenization Time (Min.): —

Jar#: 10194
Jar/Vial Size: 250 mL
Initial Weight: — g
Final Weight: — g
Net Weight: — g

Cone#: 10194
Final Vol: 10.0 mL
Initial Weight: 7.64 g
Final Weight: 22.62 g
Net Weight: 15.03 g
Sample ID: —

Appearance/Narrative: 15.03/10.0 = 1.50 g/mL

Start Time: —
End Time: —
Homogenization Time (Min.): —

Jar#: 10199
Jar/Vial Size: 250 mL
Initial Weight: — g
Final Weight: — g
Net Weight: — g

Cone#: 10199
Final Vol: 11.5 mL
Initial Weight: 7.62 g
Final Weight: 25.1 g
Net Weight: — g
Sample ID: 94001967

Appearance/Narrative: 17.43/11.5 = 1.51 g/mL

WHC-SD-WM-DP-191, REV. I

10199

Bulk Density Worksheet

Requestor: STGG

Tank: U-706
Core: 147
Seg: SWH
Auger: ---
Sample ID: ---

Start Time: ---
End Time: ---
Homogenization Time (Min.): ---

Jar#: 10184
Jar/Vial Size: 250 mL
Initial Weight: --- g
Final Weight: --- g
Net Weight: --- g

Conc#: 10184
Final Vol: 10.8 mL
Initial Weight: 7.69 g
Final Weight: 75.57 g
Net Weight: 17.88 g
Sample ID: ---

Appearance/Narrative: 17.88/10.8 = 165 g/mL

Date: 6-21-96

Tank: U-106
Core: 147
Seg: SWH
Auger: ---
Sample ID: ---

Start Time: ---
End Time: ---
Homogenization Time (Min.): ---

Jar#: 10069
Jar/Vial Size: 125 mL
Initial Weight: --- g
Final Weight: --- g
Net Weight: --- g

Conc#: 10069
Final Vol: 11.2 mL
Initial Weight: 7.64 g
Final Weight: 28.6 g
Net Weight: 20.96 g
Sample ID: ---

Appearance/Narrative: 20.96/11.2 = 187 g/mL

WHC-SD-WM-DP-191, REV. 1

Bulk Density Worksheet

Requestor: F. STEEN

Tank: 4-106

Core: 147

Seg: CAMP

Auger: _____

Sample ID: _____

Start Time: _____

End Time: _____

Homogenization

Time (Min.): _____

Jar#: 10600

Jar/Vial Size: 250 mL

Initial Weight: 355.3 g

Final Weight: _____ g

Net Weight: _____ g

Cone#: 00

Final Vol: 8.0 mL

Initial Weight: 7.51 g

Final Weight: 20.4 g

Net Weight: 12.9 g

Sample ID: _____

Appearance/Narrative: _____

$$12.9 / 8.0 = 1.61 \text{ g/mL}$$

Date: 7/29/96

WHC-SD-WM-DP-191, REV. 1

Tank: _____

Core: _____

Seg: _____

Auger: _____

Sample ID: _____

Start Time: _____

End Time: _____

Homogenization

Time (Min.): _____

Jar#: _____

Jar/Vial Size: _____ mL

Initial Weight: _____ g

Final Weight: _____ g

Net Weight: _____ g

Cone#: _____

Final Vol: _____ mL

Initial Weight: _____ g

Final Weight: _____ g

Net Weight: _____ g

Sample ID: _____

Appearance/Narrative: _____

Bulk Density Worksheet

Requestor: F. STEW

Tank: U-166
 Core: 148
 Seg: 2 uk
 Auger: —
 Sample ID: —

Start Time: —
 End Time: —
 Homogenization Time (Min.): —

Jar#: 10058
 Jar/Vial Size: 125 mL
 Initial Weight: — g
 Final Weight: 12.14 g
 Net Weight: 12.14 g

Conc#: 58
 Final Vol: 9.0 mL
 Initial Weight: 7.7 g
 Final Weight: 21.9 g
 Net Weight: 14.2 g

Sample ID: 596702971

Appearance/Narrative:

PKK/ENH = 14.2 / 9.0 = 1.58 g/mL

Date: 6/22/96

Tank: —
 Core: —
 Seg: —
 Auger: —
 Sample ID: —

Start Time: —
 End Time: —
 Homogenization Time (Min.): —

Jar#: —
 Jar/Vial Size: — mL
 Initial Weight: — g
 Final Weight: — g
 Net Weight: — g

Conc#: 6/22/96
 Final Vol: 9.0 mL
 Initial Weight: — g
 Final Weight: — g
 Net Weight: — g

Sample ID: —

Appearance/Narrative:

Bulk Density Worksheet

Requestor: F. STEINDate: 6/23/96

Tank: 16106
 Core: 148
 Seg: 344
 Auger: —
 Sample ID: —

Start Time: —
 End Time: —
 Homogenization
 Time (Min.): —

Jar#: 16186
 Jar/Vial Size: — mL
 Initial Weight: 14 g
 Final Weight: 101.1 g
 Net Weight: — g

Cone#: 86
 Final Vol: 11.5 mL
 Initial Weight: 7.8 g
 Final Weight: 27.1 g
 Net Weight: 19.3 g
 Sample ID: 596002974

Appearance/Narrative: 19.3/11.5 = 1.68 g/cc

Tank: —
 Core: —
 Seg: —
 Auger: —
 Sample ID: —

Start Time: —
 End Time: —
 Homogenization
 Time (Min.): —

Jar#: —
 Jar/Vial Size: — mL
 Initial Weight: — g
 Final Weight: — g
 Net Weight: — g

Cone#: —
 Final Vol: — mL
 Initial Weight: — g
 Final Weight: — g
 Net Weight: — g
 Sample ID: —

Appearance/Narrative: —

WHC-SD-WM-DP-191, REV. I

Bulk Density Worksheet

Requestor: F. STEIN

Date: 6/23/96

Jun. 24. 1996

4:57AM

WHC 222S LAB ROOM 2F BACKSIDE

No. 2331

P. 11/14

WHC-SD-WM-DP-191, REV. 1

Tank: _____
Core: _____
Seg: _____
Auger: _____
Sample ID: _____

Start Time: _____
End Time: _____
Homogenization Time (Min.): _____

Jar#: _____
Jar/Vial Size: _____ mL
Initial Weight: _____ g
Final Weight: _____ g
Net Weight: _____ g

Cone#: 6/23
Final Vol: 176 mL
Initial Weight: _____ g
Final Weight: 176 g
Net Weight: _____ g

Sample ID: _____

Appearance/Narrative: _____

Tank: 4706
Core: 148
Seg: 464
Auger: _____
Sample ID: _____

Start Time: _____
End Time: _____
Homogenization Time (Min.): _____

Jar#: 10060
Jar/Vial Size: _____ mL
Initial Weight: 1.6 g
Final Weight: 1.6 g
Net Weight: _____ g

Cone#: 60
Final Vol: 12.5 mL
Initial Weight: 7.7 g
Final Weight: 28.2 g
Net Weight: 20.5 g

Sample ID: 59600-2976

Appearance/Narrative: AKOWEL = 20.5 / 12.5 = 1.64 g

WHC-SD-WM-DP-191, REV. I

Bulk Density Worksheet

Requestor: F. StedDate: 6/23/96

Tank: 4-106
 Core: 148
 Seg: 54t
 Auger: -
 Sample ID: _____

Start Time: _____
 End Time: _____
 Homogenization
 Time (Min.): _____

Jar#: 10066
 Jar/Vial Size: _____ mL
 Initial Weight: 166 g
 Final Weight: 123 g
 Net Weight: 43 g

Cone#: 66
 Final Vol: 9.5 mL
 Initial Weight: 7.7 g
 Final Weight: 22.6 g
 Net Weight: 14.9 g

Sample ID: _____

Appearance/Narrative: _____

10066
14.9 / 9.5 = 1.57
g/cc

Tank: _____
 Core: _____
 Seg: _____
 Auger: _____
 Sample ID: _____

Start Time: _____
 End Time: _____
 Homogenization
 Time (Min.): _____

Jar#: _____
 Jar/Vial Size: _____ mL
 Initial Weight: _____ g
 Final Weight: _____ g
 Net Weight: 66 g

Cone#: _____
 Final Vol: 9 mL
 Initial Weight: _____ g
 Final Weight: 12 g
 Net Weight: _____ g

Sample ID: _____

Appearance/Narrative: _____

Bulk Density Worksheet

Requestor: F. STEEN

Date: 7/31/96

Tank: U-106
Core: 148
Seg: Leadfinita
Auger:
Sample ID:

Start Time:
End Time:
Homogenization Time (Min.):

Jar#: 10432
Jar/Vial Size: 125 mL
Initial Weight: 255.4 g
Final Weight: g
Net Weight: g

Cone#: 34
Final Vol: 11.5 mL
Initial Weight: 7.48 g
Final Weight: 26.0 g
Net Weight: 18.52 g
Sample ID:

Appearance/Narrative: 18.52/11.5 = 16.1 g/mL

Tank:
Core:
Seg:
Auger:
Sample ID:

Start Time:
End Time:
Homogenization Time (Min.):

Jar#:
Jar/Vial Size: mL
Initial Weight: g
Final Weight: g
Net Weight: g

Cone#:
Final Vol: mL
Initial Weight: g
Final Weight: g
Net Weight: g
Sample ID:

Appearance/Narrative:

Composite Worksheet

Date: 7/19/96

Tank: 16106

P.C. SPED

Phone# 372-2495

Sample

ID: 5967003018

Auger/

Core: 148

Segment: 24H

Jar#: 10463 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

Sample

ID: 5967003019

Auger/

Core: 148

Segment: 24H

Jar#: 10464 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

Sample

ID: 5967003020

Auger/

Core: 148

Segment: 34H

Jar#: 10465 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

Sample

ID: 5967003021

Auger/

Core: 148

Segment: 34H

Jar#: 10466 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

184

WHC-SD-WM-DP-191, REV. I

Start Time:
End Time:

Tests:
Composol
Homogenizer
BLK 2501

Homogenization
Time (Min.):

Jar#:

Jar/Vial Size: mL

Final Weight: g

Initial Weight: g

Net Weight: g

(after final
subsample added)

Special Instructions: Build composite with 15 grams from each sample.

Composite Worksheet

Date: 7/19/96

Tank: W06

Sample
ID: 5467003022
Auger/
Core: 148
Segment: 4uH

Jar#: 10467 (Bin 65)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

Sample
ID: 5467003023
Auger/
Core: 148
Segment: 4uH

Jar#: 10468 (Bin 65)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

Sample
ID: 5467003024
Auger/
Core: 148
Segment: 5uH

Jar#: 10469 (Bin 65)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

Sample
ID: 5467003025
Auger/
Core: 148
Segment: 5uH

Jar#: 10470 (Bin 66)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

P.C. STEEN

Phone# 372-2475

WHC-SD-WM-DP-191, REV. 1

See Parent
Jar#
on Page #1

105

Special Instructions: _____

Composite Worksheet

Date: 7/19/96

Tank: W106

P.C. STEEN

Phone# 372-2495

Sample

ID: 5967003072
Auger/
Core: 147
Segment: 24H

Jar#: 10313 (Bin 64)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

Sample

ID: 5967003073
Auger/
Core: 147
Segment: 34H

Jar#: 10457 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

Sample

ID: 5967003074
Auger/
Core: 147
Segment: 34H

Jar#: 10458 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

Sample

ID: 5967003075
Auger/
Core: 147
Segment: 44H

Jar#: 10460 (Bin 65)

Jar/Vial Size: 60 mL

Initial Weight: g

Final Weight: g

Net Weight: g

WHC-SD-WM-DP-191, REV. 1

Start Time:
End Time:

Tests:

COMPOSITE
HOMENIZOL
BLACK DENSOL

Homogenization
Time (Min.):

Jar#:

Jar/Vial Size: mL

Final Weight: g

Initial Weight: g

Net Weight: g

(after final
subsample added)

Special Instructions: Build composite as follows:

Jar # 10313 sample # 3072 - 30 grams, 15 grams from each of
the other samples.

Composite Worksheet

Date: 7/19/96

Tank: LU106

Sample
ID: 5961003076
Auger/
Core: 147
Segment: 4 LH

Sample
ID: 5961003077
Auger/
Core: 147
Segment: 5 LH

Sample
ID: 5961003078
Auger/
Core: 147
Segment: 5 LH

Sample
ID: 5961003079
Auger/
Core: 4 LH
Segment: 5 LH

P.C. STEEN

Phone# 372-2495

Jar# 10459 (BIN 65)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

Jar# 10461 (BIN 65)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

Jar# 10462 (BIN 65)
Jar/Vial Size: 60 mL
Initial Weight: g
Final Weight: g
Net Weight: g

Jar# 10463 (BIN 65)
Jar/Vial Size: mL
Initial Weight: g
Final Weight: g
Net Weight: g

187

See Parent

Jar#
on Page #1

WHC-SD-WM-DP-191, REV. I

Special Instructions: _____

Data Reprocessed On 08/26/1996 14:57:43

```

=====
Sample Name: S96T003885 SPIKE                      Date: 08/24/1996 17:17:58
Data File  : C:\DX\DATA\96082481.d09
Method     : C:\DX\METHOD\ANIONS.MET
ACI Address: 1 System: 1 Inject#: 9
Analyst    :                               Column:
=====
  
```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          41    3000  5Hz   0.00 10.00      200
  
```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.87		0.000	333	1752	2	
2	1.06	FLUORIDE	28.509	2640	13636	2	1.60
3	1.18		0.000	1038	6028	2	
4	1.65	CHLORIDE	59.253	3966	19432	2	0.81
5	2.00	NITRITE	435.281	18141	102395	2	0.00
6	3.06	BROMIDE	234.781	5458	35204	2	0.11
7	3.40	NITRATE	1256.153	27306	271084	2	-2.20
8	5.14	PHOSPHATE	242.537	1987	23310	1	2.25
9	6.84	SULFATE	294.706	5217	74251	1	2.39
10	9.06	OXALATE	252.341	2402	45831	1	3.27
Totals			2803.562	68487	592923		

File: 96082481.d09 Sample: S96T003885 SPIKE

LABCORE Data Entry Template for Worklist# 12421

Analyst: EAL Instrument: IC00 IC01 Book# 14919.C

Method: LA-533-105 Rev/Mod D1

Worklist Comment: @IC-01 FOR U-106 SAMPLES

RTS!

S Type	Sample#	R A	Test	Matrix	Group#	Project
1 CCB			@IC-QC	QC		
2 CCV			@IC-QC	QC		
3 BLNK-PREP			@IC-01	SOLID		
4 SAMPLE	S96T003879 0 W		@IC-01	SOLID	96000641	U-106 (P)
	Analytes Requested: NO3-02					
5 DUP	S96T003879 0 W		@IC-01	SOLID		
6 SPK	S96T003879 0 W		@IC-01	SOLID		

Final page for worklist # 12421

Signature attached 9/11/96
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 12421

Analyst: eal

Instrument: IC01

Book# 149N/C

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: @IC-01 FOR U-106 SAMPLES

RTS!

Seq Type	Sample# R A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	OCB	0	@IC-QC F	QC	1	<1.30e-2	ug/mL
1	OCB	0	@IC-QC CL	QC	1	<1.70e-2	ug/mL
1	OCB	0	@IC-QC NO2	QC	1	<1.07e-1	ug/mL
1	OCB	0	@IC-QC BR	QC	1	<1.26e-1	ug/mL
1	OCB	0	@IC-QC NO3	QC	1	<1.40e-1	ug/mL
1	OCB	0	@IC-QC PO4	QC	1	<1.19e-1	ug/mL
1	OCB	0	@IC-QC SO4	QC	1	<1.36e-1	ug/mL
1	OCB	0	@IC-QC OXALATE2	QC	1	<1.05e-1	ug/mL
2	CCV	0	@IC-QC F	QC	5.90e01	5.86e+01	99.322 % Recovery
2	CCV	0	@IC-QC CL	QC	7.90e01	7.64e+01	96.709 % Recovery
2	CCV	0	@IC-QC NO2	QC	5.42e02	5.26e+02	98.893 % Recovery
2	CCV	0	@IC-QC BR	QC	5.89e02	5.43e+02	92.190 % Recovery
2	CCV	0	@IC-QC NO3	QC	5.94e02	5.75e+02	96.801 % Recovery
2	CCV	0	@IC-QC PO4	QC	5.45e02	5.07e+02	93.028 % Recovery
2	CCV	0	@IC-QC SO4	QC	6.31e02	5.98e+02	94.770 % Recovery
2	CCV	0	@IC-QC OXALATE2	QC	5.25e02	5.01e+02	95.429 % Recovery
3	BLNK-PREP	0	@IC-01 F-02	SOLID	1	<1.30e-2	ug/g
3	BLNK-PREP	0	@IC-01 CL-02	SOLID	1	5.20e-02	0.052 ug/g
3	BLNK-PREP	0	@IC-01 NO2-02	SOLID	1	<1.07e-1	ug/g
3	BLNK-PREP	0	@IC-01 BR-02	SOLID	1	<1.26e-1	ug/g
3	BLNK-PREP	0	@IC-01 NO3-02	SOLID	1	2.60e-01	0.260 ug/g
3	BLNK-PREP	0	@IC-01 PO4-02	SOLID	1	<1.19e-1	ug/g
3	BLNK-PREP	0	@IC-01 SO4-02	SOLID	1	<1.36e-1	ug/g
3	BLNK-PREP	0	@IC-01 OXALATE2	SOLID	1	<1.05e-1	ug/g
4	SAMPLE	S96T003879	0 W	@IC-01 NO3-02	SOLID	N/A	1.842e+05 1082.000 ug/g
5	DUP	S96T003879	0 W	@IC-01 NO3-02	SOLID	1.84e+05	2.12e+05 14.141 RPD
6	SPK	S96T003879	0 W	@IC-01 NO3-02	SOLID	5.94e02	4.65e+02 78.283 % Recovery

Comments Section:

Comments for sample# S96T003879 and test @IC-01

Must rerun due to NO3 standard failure. nds
Spike is indicated to be out, but this recovery of 78.283% is in per LASAP. nds

Final page for worklist# 12421

Analyst Signature _____ Date _____

Analyst Signature _____ Date _____

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 12421

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
-----	------	---------	---	---	------	--------	--------	-------	-------------	------

Neil Smith 9/11/96

Reviewer Signature Date
(Validated)

LABCORE Data Entry Template for Worklist# 12421

Analyst: EM Instrument: IC00 IC01 Book# 149N9-C

Method: LA-533-105 Rev/Mod D.1

Worklist Comment: @IC-01 FOR U-106 SAMPLES RTS!

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T003879	0	W	@IC-01	SOLID	96000641	U-106 (P)
Analytes Requested: NO3-02								
4	DUP	S96T003879	0	W	@IC-01	SOLID		
5	SPK	S96T003879	0	W	@IC-01	SOLID		

Final page for worklist # 12421

A. Lambel 09.03.96
Analyst Signature Date

Analyst Signature Date

12421.sp.csv

Inshell 9/9/94

Data Entry Comments:

Batch # 96008840

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

A-0010-IC				DATA FILE/WORKLIST RESOLUTION				11-Sep-96				
Worklist#: 12421				Data File: 12421SP.CSV								
		Seq	Type	Sample #	Seq#		Data File	Sample Name		Dilution		
-	=>	1	CCB	S96T003879	-	1	96090311.d11	INST. BLANK		1.00		
	=>	2	CCV			2	96090311.d12	149N9-C STD		101.00		
	=>	3	BLNK-PREP			3	96090311.d13	PREP. BLANK		1.00		
	=>	4	SAMPLE			4	96090311.d14	S96T003879		41.00		
	=>	5	DUP		S96T003879		5	96090311.d15	S96T003879 DUP		41.00	
	=>	6	SPK		S96T003879		6	96090311.d16	S96T003879 SPIKE		41.00	
+					+							

Save (F4) Abort (Shift-F3) ListFiles (Shift-F1) UploadFile (F8)

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T03876 DUP

Date: 08/31/96

Time: 16:39:28

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 2.83 ug/minute C

Analyst : SL HOOD

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	46.00	0.00
2	1.01	78.70	41.55
3	1.51	111.40	29.35
4	2.00	141.90	21.49
5	2.50	168.80	15.94
6	3.00	193.10	12.58
7	3.50	213.70	9.64
8	4.00	231.70	7.77
9	4.50	248.40	6.72
10	5.00	269.20	7.73
11	5.50	300.80	10.51
12	6.00	353.50	14.91
13	6.50	449.00	21.27
14	7.00	595.60	24.61
15	7.50	781.60	23.80
16	8.00	978.40	20.11
17	8.50	1169.40	16.33
18	9.00	1343.70	12.97
19	9.50	1499.30	10.38
20	10.00	1631.10	8.08
21	10.50	1748.10	6.69
22	11.00	1850.40	5.53

USER INPUT BLANK VALUE

BLANK VALUE = 31.13181 micrograms carbon

BLANK FACTOR = 31.13181 / 11.00064 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:

(1850.4 - 31.11912) (1) / (1) =

+1.8193E+03 g/L Carbon

(1850.4 - 31.11912) (1) / (1) (12) =

+1.5161E+02 Molar Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

SS 086159

Sample Run By:

SL HOOD

00002

LABCORE Completed Worklist Report for Worklist# 12677

Analyst: dgg

Instrument: CARB2

Book# _____

Method: _____ Rev/Mod _____

Worklist Comment: U-106 TICTOC. RCJ

Seq Type	Sample#	R A	Test	Matrix	Actual	Found	DL or Yield	Unit
1 BLNK	0		ETICTOC1 TIC-02	LIQUID	1	1.40E+0	1.400	ug/mL
1 BLNK	0		ETICTOC1 TOC-02	LIQUID	1	7.70E+0	7.700	ug/mL
2 STD	0		ETICTOC1 TIC-02	LIQUID	6.01E+02	5.88E+2	97.837 % Recovery	
2 STD	0		ETICTOC1 TOC-02	LIQUID	3.00E+03	2.65E+3	88.333 % Recovery	
3 SAMPLE	S96T002860	0	ETICTOC1 TIC-02	LIQUID	N/A	8.98E+03	5.000	ug/mL
3 SAMPLE	S96T002860	0	ETICTOC1 TOC-02	LIQUID	N/A	3.26E+04	40.000	ug/mL
4 DUP	S96T002860	0	ETICTOC1 TIC-02	LIQUID	8.98E+3	9.38E+3	4.357 RPD	
4 DUP	S96T002860	0	ETICTOC1 TOC-02	LIQUID	3.26E+4	3.43E+4	5.082 RPD	
5 SPK	S96T002860	0	ETICTOC1 TIC-02	LIQUID	1.00E+02	9.99E+01	99.900 % Recovery	
5 SPK	S96T002860	0	ETICTOC1 TOC-02	LIQUID	1.00E+02	8.64E+01	86.400 % Recovery	
6 SAMPLE	S96T003051	0	ETICTOC1 TIC-02	LIQUID	N/A	9.29E+03	5.000	ug/mL
6 SAMPLE	S96T003051	0	ETICTOC1 TOC-02	LIQUID	N/A	3.36E+04	40.000	ug/mL
7 DUP	S96T003051	0	ETICTOC1 TIC-02	LIQUID	9.29E+3	9.71E+3	4.421 RPD	
7 DUP	S96T003051	0	ETICTOC1 TOC-02	LIQUID	3.36E+4	3.35E+4	0.298 RPD	
8 SPK	S96T003051	0	ETICTOC1 TIC-02	LIQUID	1.00E+02	1.15E+02	115.000 % Recovery	
8 SPK	S96T003051	0	ETICTOC1 TOC-02	LIQUID	1.00E+02	5.27E+01	52.700 % Recovery	

Final page for worklist# 12677

Analyst Signature _____ Date _____

Analyst Signature Date 9-9-96

Reviewer Signature Date 9/9/96

Spike for TOC S96T003051 is reported as N/A.
The spike analyte concentration is < than 4x the sample
analyte concentration. RW Schroeder 9/9/96

776

LABCORE Data Entry Template for Worklist# 12677

Analyst:

1028/5ds Instrument: CARB2

Book#

423
TIC 22 N12-E
TOC 24 N12-C

Method: LA-342-100 Rev/Mod

Worklist Comment: U-106 TICTOC. RCJ

S Type	Sample#	R A	Test	Matrix	Group#	Project
1 BLNK			@TICTOC1	LIQUID		
2 STD			@TICTOC1	LIQUID		
3 SAMPLE	S96T002860 0		@TICTOC1	LIQUID	96000643	U-106 (P)
Analytes Requested: TIC-02 , TOC-02						
4 DUP	S96T002860 0		@TICTOC1	LIQUID		
5 SPK	S96T002860 0		@TICTOC1	LIQUID		
6 SAMPLE	S96T003051 0		@TICTOC1	LIQUID	96000643	U-106 (P)
Analytes Requested: TIC-02 , TOC-02						
7 DUP	S96T003051 0		@TICTOC1	LIQUID		
8 SPK	S96T003051 0		@TICTOC1	LIQUID		

Final page for worklist # 12677

1028/5ds *9-6-96*
Analyst Signature Date

John Spk *9-8-96*
Analyst Signature Date

Data Entry Comments:

WORKLIST

TIC/TOC: LA-342-100 (E-0)

ANALYST
INITIALS

ANALYSIS
DATE

ANALYSIS
TIME

INSTRUMENT
CODE

12077

AB8/SDS

9-6-96

☒ BASELINE
BLANK

☐ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # =

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: 4.60 TOC: 3.10

☐ BASELINE
BLANK

☐ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # = 2MCS

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: 592.50 TOC: 56.0.80

☐ BASELINE
BLANK

☐ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # =

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: 3.20 TOC: 23.40

☐ BASELINE
BLANK

☒ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # = 5967002860

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: 902.30 TOC: 3295.00

☐ BASELINE
BLANK

☒ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # = 5967002860

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: 942.40 TOC: 3462.30

☐ BASELINE
BLANK

☐ SAMPLE
DUPLICATE

☒ SPIKE
TRIPPLICATE

SAMPLE # = 5967002860

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: 1202.50 TOC: 3554.20

☐ BASELINE
BLANK

☒ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # = 5967003051

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: _____ TOC: _____

☐ BASELINE
BLANK

☒ SAMPLE
DUPLICATE

☐ SPIKE
TRIPPLICATE

SAMPLE # = 5967003051

STD # =

SAMPLE WEIGHT (g) _____

TIC: _____

TOC: _____

SPIKE/STANDARD VOLUME (mL) _____

FINAL COULOMETER READING (u) TIC: _____ TOC: _____

WORKLIST		ANALYST		ANALYSIS		INSTRUMENT	
#	DATE	SIGNATURE	DATE	TIME	CODE		
12677		0881505	9-6-96				
<p>SAMPLE # 6967003051 SPK TIC STD # = TIC SPK 22412-E</p> <p>Amount of Sample Used - (00) TIC STD # = TIC SPK 22412-C</p> <p>Pre-Extraction Method - (00) TIC 500 mL 100 100 mL</p> <p>For Customer Reading in 10 Days (Optional)</p>							
<p>SAMPLE # ☐ STANDARD ☐ DEPLICATE ☒ BASELINE ☐ SPK ☐ TIC ☐ STD ☐ STD #</p> <p>Amount of Sample Used TIC 500 mL 100 100 mL</p> <p>Pre-Extraction Method - (00) TIC 500 mL 100 100 mL</p> <p>For Customer Reading in 10 Days (Optional)</p>							
<p>SAMPLE # ☐ STANDARD ☐ DEPLICATE ☐ BASELINE ☐ SPK ☐ TIC ☐ STD ☐ STD #</p> <p>Amount of Sample Used TIC 500 mL 100 100 mL</p> <p>Pre-Extraction Method - (00) TIC 500 mL 100 100 mL</p> <p>For Customer Reading in 10 Days (Optional)</p>							
<p>SAMPLE # ☐ STANDARD ☐ DEPLICATE ☐ BASELINE ☐ SPK ☐ TIC ☐ STD ☐ STD #</p> <p>Amount of Sample Used TIC 500 mL 100 100 mL</p> <p>Pre-Extraction Method - (00) TIC 500 mL 100 100 mL</p> <p>For Customer Reading in 10 Days (Optional)</p>							
<p>SAMPLE # ☐ STANDARD ☐ DEPLICATE ☐ BASELINE ☐ SPK ☐ TIC ☐ STD ☐ STD #</p> <p>Amount of Sample Used TIC 500 mL 100 100 mL</p> <p>Pre-Extraction Method - (00) TIC 500 mL 100 100 mL</p> <p>For Customer Reading in 10 Days (Optional)</p>							
<p>SAMPLE # ☐ STANDARD ☐ DEPLICATE ☐ BASELINE ☐ SPK ☐ TIC ☐ STD ☐ STD #</p> <p>Amount of Sample Used TIC 500 mL 100 100 mL</p> <p>Pre-Extraction Method - (00) TIC 500 mL 100 100 mL</p> <p>For Customer Reading in 10 Days (Optional)</p>							

BEST AVAILABLE COPY

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

		TIC	TOC
Type	Sample Size in mL (SS)	0.0000	0.0000
BLNK	Dilution Factor (DF)	1	1
Worklist	µg of Carbon in Sample (C1)	3.2	23.4
12677	µg of Carbon from Baseline (C2)	4.6	31.1
Test Code			
@TICTOC1			
Matrix			
LIQUID			
Batch Number			
96009104			
Rerun	µg of Carbon = C1-C2		
0			
Sample Prep			
N/A			
Sample #			
BLANK			
Instrument Code			
CARB2			
Prepared By			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Date Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time	Method Detection Limit in µg/mL	5	40
10:58 AM			
Sample Point	µg of Carbon	1.40E+00	7.70E+00
U-106			

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>RW Schneider</i>	Date:	9/9/96

BLANK WB1 REV 1.0

342100ML

730

WORKBOOK PAGE: STD2

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

		TIC	TOC
Type	Sample Size in mL (SS)	1.0000	0.2000
STD	Dilution Factor (DF)	1	1
Work List	Final Coulometer Reading in μg (C1)	592.5	560.8
12677	μg of Carbon from Baseline (C2)	4.6	31.1
Test Code	Standard Book Number	22N12E	24N12C
@TICTOC1	Standard Value ($\mu\text{g}/\text{ml}$)	601	3001

Matrix
LIQUID
Batch Number
96009104
Recovery
0
Sample Prep
N/A
Sample
STANDARD
Instrument Code
CARB2
Prepared By
RCJ
Chemist
RWS
Analyst
DGG
Date Complete
09/09/96
Analysis Date
09/06/96
Analysis Time
10:58 AM
Sample Path
U-106

QC Actual in $\mu\text{g}/\text{mL}$ = Standard Value ($\mu\text{g}/\text{mL}$)QC Found in $\mu\text{g}/\text{mL}$ = (C1 - C2) * DF / SSQC Found in $\mu\text{g}/\text{mL}$ for TIC = 5 if C1 < C2QC Found in $\mu\text{g}/\text{mL}$ for TOC = 40 if C1 < C2

% Recovery = QC Found / QC Actual * 100

		TIC	TOC
Analysis Time	Method Detection Limit in $\mu\text{g}/\text{mL}$	5	40
10:58 AM	QC Actual in $\mu\text{g}/\text{mL}$	6.01E+02	3.00E+03
Sample Path	QC Found in $\mu\text{g}/\text{mL}$	5.88E+02	2.65E+03
U-106	Percent Standard Recovery	97.8	88.3

Data Entered By:

Signature of Chemist:

STANDARD.WB1 REV 1.0

342100ML

RCJ

Date: 09/09/96

Date: 9/9/96

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

		TIC	TOC
Type	Sample Size in mL (SS)	0.1000	0.1000
SAMPLE	Dilution Factor (DF)	1	1
Work List	µg of Carbon in Sample (C1)	902.2	3295
12677	µg of Carbon from Baseline (C2)	4.6	31.1
Test Code			
@TICTOC1			
Matrix			
LIQUID			
Batch Number			
96009104			
Refun	µg of Carbon/mL = (C1-C2) * DF / SS		
0	µg of Carbon/mL for TIC = 5 if C1 < C2		
Sample Prep	µg of Carbon/mL for TOC = 40 if C1 < C2		
N/A			
Sample #			
S96T002860			
Instrument Code			
CARB2			
Prepared By			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Date Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time	Method Detection Limit in µg/mL	TIC	TOC
10:58 AM		5	40
Sample Point	µg of Carbon/mL	8.98E+03	3.26E+04
U-106			

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>RWS</i>	Date:	9/9/96

SAMPLE WB1 REV 1.0

342100ML

782

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

		TIC	TOC
Type	Sample Size in mL (SS)	0.1000	0.1000
DUP	Dilution Factor (DF)	1	1
Work List:	µg of Carbon in Sample (C1)	942.4	3462.3
12677	µg of Carbon from Baseline (C2)	4.6	31.1
Test Code	Known µg of C from Original Sample	8.98E+3	3.26E+4
@TICTOC1			
Matrix			
LIQUID			
Batch Number			
96009104			
Retain	µg of Carbon/mL = (C1-C2) * DF / SS		
0	µg of Carbon/mL for TIC = 5 if C1 < C2		
Sample Prep	µg of Carbon/mL for TOC = 40 if C1 < C2		
N/A			
Sample #			
S96T002860			
Instrument Code			
CARB2			
Prepared By			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Date Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time	Method Detection Limit in µg/mL	5	40
10:58 AM			
Sample Point	µg of Carbon/mL	9.38E+03	3.43E+04
U-106			

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>RW Schwach</i>	Date:	9/9/96

SAMPLE.WB1 REV 1.0

342100ML

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

Type	Sample Vial Data	TIC	TOC
SPK	Sample Volume in mL (SS)	0.1000	0.1000
Work List	Final Coulometer Reading in µg (C1)	902.2	3295
12677	Spiked Vial Data		
Test Code	Sample Volume in mL (SPK SS)	0.1000	0.1000
@TICTOC1	Amount of Spike Std. in mL (SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg (C2)	1202.5	3554.2
LIQUID	Spike Book Number	22N12E	24N12C
Batch Number	Spike Standard Value in µg/ml (SPK CONC)	601	3001
96009104			
Rerun			
0			
Sample Prep			
N/A			
Sample #	Percent Spike Recovery = $(C2 - C1 * (SPK SS) / SS) / ((SPK CONC) * (SPK VOL)) * 1$		
S96T002860			
Instrument Code	QC Actual in µg/mL = Spike Value (µg/mL)		
CARB2	QC Found in µg/mL = (Percent Spike Recovery)*(QC Actual) / 100		
Prepared by			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Date Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time			
10:58 AM	QC Actual in µg/mL	6.01E+02	3.00E+03
Sample Point	QC Found in µg/mL	6.01E+02	2.59E+03
U-106	Percent Spike Recovery	99.9	86.4

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>RWS</i>	Date:	9/9/96

SPIKE.WB1 REV 1.1

342100ML

734

WORKBOOK PAGE: SAM6

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

		TIC	TOC
Type	Sample Size in mL (SS)	0.1000	0.1000
SAMPLE	Dilution Factor (DF)	1	1
Work List	µg of Carbon in Sample (C1)	933.8	3393.4
12677	µg of Carbon from Baseline (C2)	4.6	31.1
Test Code			
@TIC/TOC1			
Matrix			
LIQUID			
Batch Number			
96009104			
Re-run	µg of Carbon/mL = (C1-C2) * DF / SS		
0	µg of Carbon/mL for TIC = 5 if C1 < C2		
Sample Prep	µg of Carbon/mL for TOC = 40 if C1 < C2		
N/A			
Sample #			
S96T003051			
Instrument Code			
CARB2			
Prepared by			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Data Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time	Method Detection Limit in µg/mL	TIC	TOC
10:58 AM		5	40
Sample Point	µg of Carbon/mL	9.29E+03	3.36E+04
U-106			

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>Rou Schwach</i>	Date:	9/9/96

SAMPLE WB1 REV 1.0

342100ML

WORKBOOK PAGE: DUP7

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

		TIC	TOC
Type	Sample Size in mL (SS)	0.1000	0.1000
DUP	Dilution Factor (DF)	1	1
Work List	µg of Carbon in Sample (C1)	976	3377.9
12677	µg of Carbon from Baseline (C2)	4.6	31.1
Test Code	Known µg of C from Original Sample	9.29E+3	3.36E+4
@TICTOC1			
Matrix			
LIQUID			
Batch Number			
96009104			
Rerun	µg of Carbon/mL = (C1-C2) * DF / SS		
0	µg of Carbon/mL for TIC = 5 if C1 < C2		
Sample Prep	µg of Carbon/mL for TOC = 40 if C1 < C2		
N/A			
Sample #			
S96T003051			
Instrument Code			
CARB2			
Prepared By			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Date Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time	Method Detection Limit in µg/mL	5	40
10:58 AM			
Sample Point	µg of Carbon/mL	9.71E+03	3.35E+04
U-106			

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>RWS</i>	Date:	9/9/96

SAMPLE.WB1 REV 1.0

342100ML

786

WORKBOOK PAGE: SPIKE8

TIC/TOC : LA-342-100 (E-0)

LIQUIDS

Type	Sample Vial Data	TIC	TOC
SPK	Sample Volume in mL (SS)	0.1000	0.1000
Work List	Final Coulometer Reading in µg (C1)	933.8	3393.4
12677	Spiked Vial Data		
Test Code	Sample Volume in mL (SPK SS)	0.1000	0.1000
@TICTOC1	Amount of Spike Std. in mL (SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg (C2)	1279.8	3551.7
LIQUID	Spike Book Number	22N12E	24N12C
Batch Number	Spike Standard Value in µg/mL (SPK CONC)	601	3001
96009104			
Rerun			
0			
Sample Prep			
N/A			
Sample #	Percent Spike Recovery = $(C2 - C1 * (SPK SS) / SS) / ((SPK CONC) * (SPK VOL)) * 1$		
S96T003051			
Instrument Code	QC Actual in µg/mL = Spike Value (µg/mL)		
CARB2	QC Found in µg/mL = (Percent Spike Recovery)*(QC Actual) / 100		
Prepared By			
RCJ			
Chemist			
RWS			
Analyst			
DGG			
Date Complete			
09/09/96			
Analysis Date			
09/06/96			
Analysis Time			
10:58 AM			
QC Actual in µg/mL	6.01E+02	3.00E+03	
QC Found in µg/mL	6.92E+02	1.58E+03	
Sample Point	Percent Spike Recovery	115.1	52.7
U-106			

Data Entered By:	RCJ	Date:	09/09/96
Signature of Chemist:	<i>RCJ</i>	Date:	9/9/96

SPIKE.WB1 REV 1.1

342100ML

787

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. 1

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-191, REV. I

Data Reprocessed On 07/16/1996 10:24:43

Sample Name: CCV 142N9B		Date: 07/14/1996 10:03:52
Data File :	C:\DX\DATA\96071401.d02	
Method :	C:\DX\METHOD\ANIONS.MET	
ACI Address: 1	System: 2	Inject#: 2
Analyst :	Column:	Detector: CDM-1

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	0.89		0.000	111	579	2	
3	1.04	FLUORIDE	63.518	1623	8671	2	0.32
4	1.53	CHLORIDE	82.559	1505	7918	1	-1.29
5	1.82	NITRITE	527.762	6452	37206	1	-1.44
6	2.70	BROMIDE	584.835	4236	26936	2	0.87
7	3.08	NITRATE	602.883	4753	35834	2	-2.94
8	4.43	PHOSPHATE	557.118	1387	15862	1	-1.12
9	5.76	SULFATE	647.585	3893	49161	1	-2.26
10	7.54	OXALATE	533.500	1863	31406	1	-1.78
Totals			3599.761	25824	213573		

File: 96071401.d02 Sample: CCV 142N9B

LABCORE Data Entry Template for Worklist# 10950

Analyst: J. WORRELL Instrument: ICP01-2 Book# 58B18A

Method: LA-505-151/161 Rev/Mod B-1

Worklist Comment: ICP U-106 (FUSION)

S Type	Sample#	R A	Test	Matrix	Group#	Project
1	ICV		@ICP-QC	QC		
2	ICB		@ICP-QC	QC		
3	LIS		@ICP-QC	QC		
4	ICSA		@ICP-QC	QC		
5	ICSAB		@ICP-QC	QC		
6	PREPBKARD LTA		@ICP-F01	SOLID		
7	SERDIL		@ICP-F01	SOLID		
8	SAMPLE		@ICP-F01	SOLID	96000643	U-106 (P)
Analytes Requested: AG-F-01, AL-F-01, AS-F-01, B-F-01, BA-F-01, BE-F-01, BI-F-01, CA-F-01, CD-F-01, CE-F-01, CO-F-01, CR-F-01, CU-F-01, FE-F-01, K-F-01, LA-F-01, LI-F-01, MG-F-01, MN-F-01, MO-F-01, NA-F-01, ND-F-01, NI-F-01, P-F-01, PB-F-01, S-F-01, SB-F-01, SE-F-01, SI-F-01, SM-F-01, SR-F-01, TI-F-01, TL-F-01, U-F-01, V-F-01, ZN-F-01, ZR-F-01						
9	DUP		@ICP-F01	SOLID		
10	SPK		@ICP-F01	SOLID		
11	CCV		@ICP-QC	QC		
12	CCB		@ICP-QC	QC		
13	SERDIL		@ICP-F01	SOLID		
14	SAMPLE		@ICP-F01	SOLID	96000643	U-106 (P)
Analytes Requested: AG-F-01, AL-F-01, AS-F-01, B-F-01, BA-F-01, BE-F-01, BI-F-01, CA-F-01, CD-F-01, CE-F-01, CO-F-01, CR-F-01, CU-F-01, FE-F-01, K-F-01, LA-F-01, LI-F-01,						

Note: Serdil for 596T003029 needs to be multiplied by 205.

Data Entry Comments:

Sample result calculation:

$$596T003029 \quad Al = 23.63 \frac{\mu g}{ml} \times \frac{1}{2.0140 \frac{g}{g}} \times \frac{16}{1000} = 1.17e+4 \frac{\mu g}{g}$$

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Note: 2.014 g is sample prep dilution factor which can be found in sample prep worklist.

478

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (E-0)

SOLIDS

SPK	Sample Vial Data	TIC	TOC
10805	Sample Size in g (SS)	0.0531	0.0531
	Final Coulometer Reading in µg (C1)	786.8	1382.4
	Spiked Vial Data		
@TICTOC1	Sample Size in g (SPK SS)	0.0349	0.0349
	Amount of Spike Std. in mL (SPK VOL)	0.500	0.100
	Final Coulometer Reading in µg (C2)	819.2	1200.8
SOLID	Spike Book Number	22N12C	24N12C
96007104	Spike Standard Value in µg/ml (SPK CONC)	602	3001
0			
N/A			
S96T003011	Percent Spike Recovery = (C2 - C1 * (SPK SS) / SS) / ((SPK CONC) * (SPK VOL)) * 1		
CARB2	QC Actual in µg/mL = Spike Value (µg/mL)		
	QC Found in µg/mL = (Percent Spike Recovery)*(QC Actual) / 100		
08/19/96			
08/18/96			
07:00 PM			
U-106			
		TIC	TOC
	QC Actual in µg/mL	6.02E+02	3.00E+03
	QC Found in µg/mL	6.04E+02	2.92E+03
	Percent Spike Recovery	100.4	97.4

Data Entered By:	RCJ	Date:	08/19/96
Signature of Chemist:		Date:	08/24/96

SPIKE.WB1 REV 1.1

342100ML

672

WORKBOOK PAGE: SAM6

AT : LA-508-101 (D-2)

SOLIDS

		SAMPLE	REPLICATE
TYPE	DETECTOR NUMBER	16	16
SAMPLE	DISH SIZE (1 , 2 , or 5) (MS)	2	2
WORKER	GROSS COUNTS (GC)	466	466
11088	COUNT TIME IN MINUTES (CT)	30	30
ALPHA	BACKGROUND in cpm (BKg)	0.17	0.17
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
CS CODE	DILUTION FACTOR (DF)	101	101
ALPHA01	DIGEST GRAMS of SOLIDS / L (Dg/L)	1.9892	1.9892
MATHS	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs (SAMPLE RATE) as APPROPRIATE	15.363	15.363
Batch Number			
96007408	Blank Concentration in $\mu\text{Ci/g}$	1.67E+00	
Run	Replicate Concentration in $\mu\text{Ci/g}$	1.67E+00	
1	Average Concentration in $\mu\text{Ci/g}$	1.6701E+00	
Sample Prep			
FUSION01	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Sample	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
596T003033			
Instrument Code	Relative Counting Error = $[(The\ Square\ Root\ of\ TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
WB27806	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		
Prepared By			
SEH			
Chemist			
SLF	ALPHA TOTAL in $\mu\text{Ci/g}$ (Average) =	1.67E+00	DETECTION LEVEL
Analyst			
JDS			
Date Complete			4.80E-02
07/24/96	RELATIVE COUNTING ERROR	9.2%	$\mu\text{Ci/g}$
Analysis Date			
07/24/96			
Analysis Time			
04:00 AM			
Sample Point			
U-106 (P)			

// system.exit;yes-

Analyst:	JDS	Date: 24-Jul-96
Signature of Chemist:	SLF	Date: 7/25/96
SAMPLE.WB1 Rev. 1.0	508101ML	

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/L)
BE-7	2400.	477.59	6.4554E+00
NA-22	134.	1274.53	3.6318E-01
NA-24	6.	1368.55	8.1703E-02
K-40	131.	1460.75	3.7449E+00
CR-51	1827.	320.08	4.2388E+00
MN-54	27.	834.83	1.1372E-01
CO-56	34.	846.76	1.2872E-01
CO-58	29.	810.78	1.1483E-01
FE-59	19.	1099.25	2.1430E-01
SE-75	2100.	264.66	6.8089E-01
SR-85	1250.	514.01	5.3275E-01
Y-88	4.	1836.06	8.3936E-02
NB-94	72.	871.09	1.9200E-01
ZRNB-95	154.	724.18	5.5011E-01
RU-103	1432.	497.08	5.8553E-01
RURH-106	464.	621.93	7.3832E+00
AG-108m	154.	722.94	2.6424E-01
CD-109	2004.	88.03	1.0261E+01
AG-110M	2428.	657.76	9.2849E-01
SN-113	2019.	391.69	8.1704E-01
TE-123m	2103.	159.00	3.2660E-01
SB-124	475.	602.73	3.6888E-01
SB-125	2373.	427.89	2.0683E+00
TE-125m	1945.	109.27	9.9389E+01
I-131	1912.	364.48	5.9448E-01
CS-134	465.	604.70	3.6672E-01
BA-140	881.	537.31	1.8281E+00
LA-140	13.	1596.21	1.4232E-01
CEPR-144	2139.	133.51	4.8422E+00
EU-152	6.	1408.01	3.9850E-01
HG-203	1951.	279.20	4.8939E-01
TL-208	1987.	277.36	6.3447E+00
BI-212	41.	727.18	1.8734E+00
PB-212	2278.	238.63	8.8192E-01
BI-214	482.	609.31	8.1844E-01
PB-214	1914.	351.92	2.3431E+00
RA-224	2363.	240.99	9.9731E+00
RA-226	2684.	186.10	9.7035E+00
AC-228	46.	911.21	6.0089E-01
TH-228	1912.	84.37	3.0870E+01
TH-229	1922.	88.47	1.4565E+00
PA-233	1898.	312.17	1.1068E+00
UTH-233	2286.	245.34	3.6766E+02
PA-234M	33.	1001.03	2.5065E-01
TH-234	1629.	63.29	1.9188E+01
U-235	2666.	185.71	5.8776E-01
NP-239	2092.	106.12	1.3081E+00
PU-239	2077.	129.30	4.1529E+03
AM-241	1771.	59.54	3.5315E+00
AM-243	1785.	74.67	8.3327E-01

WHC-SD-WM-DP-191, REV.]

S96T003013 N2
47.640 mg
File: 00057.001
Ident: 0.0
Rate: 10.0 °C/min
DSC METTLER
222-S Laboratory
14-JUL-96

exo

Integration
Delta H25625 mJ
537.9 J/g
Peak 115.3°C
-74.3 mW

50. mW

Integration
Delta H 4259 mJ
89.4 J/g
Peak 213.7°C
22.6 mW

Integration
Delta H16803 mJ
352.7 J/g
Peak 308.7°C
30.1 mW

100.

200.

300.

400.

°C