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**FINAL REPORT FOR THE SAMPLES RECEIVED IN
AUGUST, 2011, FOR SAF F11-146**

**Document No.: 20111495 Rev. 1
SDG: 222S20111495**

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Advanced Technologies and Laboratories International, Inc.

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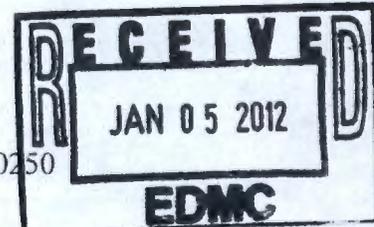
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Gerald Ritenour, Project Manager

222-S LABORATORY**FINAL REPORT FOR THE SAMPLES RECEIVED IN SEPTEMBER, 2011,
FOR SAF F11-146****1.0 INTRODUCTION**

This is a reissued final report to correct a log-in error, which resulted in the incorrect reporting of total cyanide instead of gross alpha/beta.

This final report presents the result for the one solid sample taken on August 5, 2011. The sample was analyzed in accordance with Sampling Authorization Form (SAF) F11-146 and ATL-MP-1011; *ATL Quality Assurance Project Plan for 222-S Laboratory (QAPP)*. The following attachments are included in this report.

- Attachment 1 Data Summary Report
- Attachment 2 Holding Time Report
- Attachment 3 Receipt Paperwork
- Attachment 4 Correspondence

2.0 SAMPLE RECEIPT AND HANDLING

The sample was received on September 21, 2011, in good condition and with adequate paperwork.

3.0 ANALYTICAL RESULTS SUMMARY

The Data Summary Report (Attachment 1) present the final analytical results for those analytes requested in the SAF. The "Det Limit" column in Attachment 1 contains the method detection limit (MDL) for non-radionuclide analyses.

In Attachment 1, the column labeled "A#" indicates the aliquot class or the method used for sample preparation before analysis. For analysis without a preparation step, this column is left blank.

Manual calculations using rounded results from the Data Summary Report or result calculation forms may differ slightly from the actual results derived from the raw data.

4.0 TOTAL ALPHA/TOTAL BETA ANALYSIS

The total alpha/total beta analysis was performed on a acid digested subsample . All QC requirement in QAPP were met.

5.0 PROCEDURES

Table 1 lists the analytical procedure used for analysis of this sample.

Table 1. Analytical Procedures.

Analysis	Preparation Method	Analysis Procedure
Total Alpha/Total Beta	LA-508-101, Rev. N-0 LA-554-101, Rev. H-0	LA-508-114, Rev. G-0

6.0 REFERENCES

ATL-MP-1011, 2011, *ATL Quality Assurance Project Plan for 222-S Laboratory*, Rev. 10-A, Applied Technologies and Laboratories International, Inc., Richland, Washington.

Sampling Authorization Form F11-046; September, 2011, CH2M Hill, Plateau Remediation Company, Richland, Washington.

Attachment 1

DATA SUMMARY REPORT

WSCF Diversion 2011-09
Data Summary of All Results

Sample Group: 20111495

Customer Group or SDG Number: 222S20111495

Customer Sample ID: B2FJL9

Sample Portion: Total

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S11M000515		E	12587-46-1	Gross alpha	uCi/g	104	<5.46E-07	<1.11E-06	<8.72E-07	n/a	n/a	105	1.11E-06	n/a	U
S11M000515		E	12587-47-2	Gross beta	uCi/g	105	<3.14E-06	<2.83E-06	<2.83E-06	n/a	n/a	122	2.83E-06	n/a	U

U - < Det Limit

NA = Not Analyzed, ND = Not Detected

Attachment 2

HOLDING TIME REPORT

OCTOBER 14, 2011 REVISION 1

Holding Time	Sample Group	Sample	Matrix	Method	Prep Method	Sample Date	Received Date	Prep Date	Date	Holding Time Missed	Days Remaining
04/08/12 09:28	20111495	S11M000515	SOLID	ALPHA/BETA	ACID DIGEST	08/05/11 06:30	09/21/11 10:20	10/11/11 09:28	10/11/11 14:45	N	112.66

10/13/2011 13:54

holdtimereport 2.7.29

MissedHoldTime v 2.7.29

Attachment 3

RECEIPT PAPERWORK

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev <u>E.E.U</u>
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Date Samples Received: 9.21.11 Group #: 20111495 1, CN
 Number of Samples: 5, 50. L 1, 24 water SAF E11-146
 Sample Custodian: R. H. H. H.

Sample Custodian to Complete:

Action	Yes	No	N/A	Comments
RSA <u>COC</u> provided?	✓			
RSR provided?	✓			
Verify GKI is complete	✓			<input type="checkbox"/> In Project File
Check that outer custody seal is intact, if present			✓	
Record cooler temperature in centigrade, as appropriate	3°C 3°C			<input type="checkbox"/> Check if no cooler and/or no ice
Samples are intact and in good condition	✓			If No, provide comments on back
Verify that COC or RSA is accurate and complete, containing the following information:				
• Client name and client sample number	✓			
• Date and time of sampling	✓			
• Sampling location or origin	✓			
• Container type, size, and number	✓			
• Preservatives (if used) are noted on the COC/RSA and sample bottle	✓			
• Analysis request is clear	✓			
• Signature of persons relinquishing and receiving samples	✓			
• Date and/or time of sample custody exchange	✓			
Verify that sample numbers on containers match the COC and/or RSA	✓			
Samples stored properly (e.g., refrigeration)	✓			

Notify the PM immediately if any problems are noted. (Any "No" checked requires Project Manager resolution.)

PM to Complete:

Samples acceptable for release? yes PM Initials GH Date 9.21.11
 If No, comment on communication and resolution: G.P.R

Other Comments:

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-146-067-A	PAGE 1 OF 1
COLLECTOR FM Hall CHPRC	COMPANY CONTACT LUKE, SN	TELEPHONE NO. 372-1667	PROJECT COORDINATOR LUKE, SN		PRICE CODE 9C	DATA TURNAROUND 15 Days / 15 Days
AMPLING LOCATION 83.4KW Concrete Floor Sample 13		PROJECT DESIGNATION 183 KE/KW Water Treatment Plant - Concrete		SAF NO. F11-146	AIR QUALITY <input type="checkbox"/>	
CHEST NO. Sub 9-21-11 SAF-007	FIELD LOGBOOK NO. HNF-N-507-23	ACTUAL SAMPLE DEPTH MIA		COA 302472ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE ORIGINAL	
SHIPPED TO Sub 9-21-11 Waste Sampling & Characterization 222-5		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX* =Air L=Drum Q=Quads S=Drum X=Slits =Liquid =Oil =Soil E=Sediment =Tissue =Vegetation W=Water I=Wipe =Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None	Cool-4C	Cool-4C	None
		HOLDING TIME	6 Months	30 Days	28 Days/48 Hours	6 Months
		TYPE OF CONTAINER	G/P	G/P	G/P	G/P
		NO. OF CONTAINER(S)	1	1	1	1
		VOLUME	250mL	120mL	60mL	120mL
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	IC Anions - 300.0 (Chloride, Sulfate);

222S
 GRP# 20111495
 SAM# S11M000515

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
32FJL9	1 OTHER SOLID	AUG 05 2011	0630	✓	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
ELINQUISHED BY/REMOVED FROM FM Hall	DATE/TIME AUG 05 2011/0700	RECEIVED BY/STORED IN MOLLOG SSO #1	DATE/TIME AUG 05 2011/0700	** The CACN for all analytical work at WSCF laboratory is 402114ES20. <input type="checkbox"/> ** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury}; (2) Gross Alpha {Gross alpha}; Gross Beta {Gross beta}; 3°C killed 9-21-11	
ELINQUISHED BY/REMOVED FROM MO1109 SSO #1	DATE/TIME 8-31-11	RECEIVED BY/STORED IN FM HALL	DATE/TIME 8-31-11		
ELINQUISHED BY/REMOVED FROM FM HALL	DATE/TIME 8-31-11	RECEIVED BY/STORED IN [Signature]	DATE/TIME 8-31-11		
ELINQUISHED BY/REMOVED FROM B PIAZIERI	DATE/TIME 9-21-11 1020	RECEIVED BY/STORED IN DON BROTHERTON / CHPRC	DATE/TIME 9-21-11 1000		
ELINQUISHED BY/REMOVED FROM DON BROTHERTON / CHPRC	DATE/TIME 9-21-11 1020	RECEIVED BY/STORED IN RUSTEELC ATL	DATE/TIME 9-21-11 1020		
ELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

Attachment 4

CORRESPONDENCE

1. **The data package has the following issues:**

a) Gross alpha and gross beta were requested but cyanide was reported.

Resolution: *Provide appropriate corrections*

Lab Response: *Reissue report with correct analysis*

Please correct the issue and resubmit the hard copy **and** electronic data package.