

**REISSUE FINAL REPORT FOR THE SAMPLES
RECEIVED IN FEBRUARY, 2010 FROM PROJECT ID
RCRA10**

**Document No.: 20100093 Reissue 1
SDG: 222S20100093**

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 3-23-2010
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222-S LABORATORY

REISSUED FINAL REPORT FOR THE SAMPLES RECEIVED IN FEBRUARY, 2010 FROM PROJECT ID RCRA10

1.0 INTRODUCTION

This report has been reissued in order to correct the fluoride results, which were improperly integrated. This was discovered after a request by the client to recheck the fluoride results. This client's request is documented in Request for Data Review (RDR) No. R6175 (see Attachment 4). Attachment 1 contains the corrected results for fluoride.

This final report presents the results for the four ground water samples taken on February 1, 2010. The samples were analyzed in accordance with Sampling Authorization Form W10-001; *RCRA Ground Water Sampling* (SAF) 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	RDR

2.0 SAMPLE RECEIPT AND HANDLING

A total of four samples were received on February 2, 2010 with adequate paperwork. The samples were not in a cooler and did not show evidence of cooling and the client was informed.

3.0 ANALYTICAL RESULTS SUMMARY

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

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.

The "Qual Flags" column in Attachment 1 contains data qualifier flags that are defined as follows:

- "U" indicates that the reported result is less than the calculated method detection limit.

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.

3.1 ANALYSES

3.1.1 Anions by Ion Chromatography

The ion chromatography analysis for anions was performed on direct aliquots of all samples. All requirements in the SAF and QAPP were met. Nitrate was detected below the quantitation level in two of the continuing calibration blanks. Since these concentrations were less than 5% of the lowest sample result, the data quality was not affected and reanalysis not required. The nitrate, nitrite, and phosphate holding time of 48 hours was missed for all samples. This was due to the late receipt of the samples at the 222S Laboratory caused by an unscheduled ventilation outage at the primary laboratory. Since the holding times were only missed by 2 to 5 hours, it is the laboratory's opinion that the final results were not affected.

4.0 PROCEDURES

Table 1 lists the analytical procedures used for analysis of these samples.

Table 1. Analytical Procedures.

Analysis	Preparation Method	Analysis Procedure
Anions by Ion Chromatography	NA	SW846-9056

5.0 REFERENCES

ATL-MP-1011, 2009, *ATL Quality Assurance Project Plan for 222-S Laboratory*, Rev. 9, Applied Technologies and Laboratories International, Inc., Richland, Washington.

Sampling Authorization Form W10-001; *RCRA Ground Water Sampling*, 2009, CH2M Hill, Plateau Remediation Company, Richland, Washington

Attachment 1

DATA SUMMARY REPORT

Data Summary of All Results

Sample Group: 20100093

Customer Group or SDG Number: 222S20100093

Customer Sample ID: B23D27

Sample Portion: Total

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10M000059			16984-48-8	Fluoride	ug/mL	95.6	<6.16E-03	1.03	n/a	n/a	n/a	n/a	6.16E-03	n/a	
S10M000059			16887-00-6	Chloride	ug/mL	102	<3.10E-03	47.1	n/a	n/a	n/a	n/a	0.127	n/a	
S10M000059			14797-65-0	Nitrite	ug/mL	93.2	<0.0400	<0.0400	n/a	n/a	n/a	n/a	0.0400	n/a	U
S10M000059			24959-67-9	Bromide	ug/mL	102	<0.0237	0.506	n/a	n/a	n/a	n/a	0.0237	n/a	
S10M000059			14797-55-8	Nitrate	ug/mL	101	<0.0162	89.2	n/a	n/a	n/a	n/a	0.664	n/a	
S10M000059			14265-44-2	Phosphate	ug/mL	99.4	<0.0381	<0.0381	n/a	n/a	n/a	n/a	0.0381	n/a	U
S10M000059			14808-79-8	Sulfate	ug/mL	101	<0.0219	65.5	n/a	n/a	n/a	n/a	0.898	n/a	

NA = Not Analyzed, ND = Not Detected

U - < Det Limit

Data Summary of All Results

Sample Group: 20100093

Customer Group or SDG Number: 222S20100093

Customer Sample ID: B23D35

Sample Portion: Total

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10M000061			16984-48-8	Fluoride	ug/mL	95.6	<6.16E-03	0.527	0.568	0.547	7.38	102	6.16E-03	n/a	
S10M000061			16887-00-6	Chloride	ug/mL	102	<3.10E-03	17.9	17.8	17.9	0.502	94.5	0.0341	n/a	
S10M000061			14797-65-0	Nitrite	ug/mL	93.2	<0.0400	<0.440	<0.440	n/a	n/a	95.8	0.440	n/a	U
S10M000061			24959-67-9	Bromide	ug/mL	102	<0.0237	0.299	0.283	0.291	5.61	100	0.0237	n/a	
S10M000061			14797-55-8	Nitrate	ug/mL	101	<0.0162	120	119	120	0.692	106	0.178	n/a	
S10M000061			14265-44-2	Phosphate	ug/mL	99.4	<0.0381	<0.419	<0.419	n/a	n/a	106	0.419	n/a	U
S10M000061			14808-79-8	Sulfate	ug/mL	101	<0.0219	35.5	35.0	35.3	1.45	104	0.241	n/a	

NA = Not Analyzed, ND = Not Detected

U - < Det Limit

Data Summary of All Results

Sample Group: 20100093

Customer Group or SDG Number: 222S20100093

Customer Sample ID: B23D53

Sample Portion: Total

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10M000062			16984-48-8	Fluoride	ug/mL	95.6	<6.16E-03	0.495	n/a	n/a	n/a	n/a	6.16E-03	n/a	
S10M000062			16887-00-6	Chloride	ug/mL	102	<3.10E-03	10.7	n/a	n/a	n/a	n/a	0.0186	n/a	
S10M000062			14797-65-0	Nitrite	ug/mL	93.2	<0.0400	<0.0400	n/a	n/a	n/a	n/a	0.0400	n/a	U
S10M000062			24959-67-9	Bromide	ug/mL	102	<0.0237	<0.0237	n/a	n/a	n/a	n/a	0.0237	n/a	U
S10M000062			14797-55-8	Nitrate	ug/mL	101	<0.0162	44.9	n/a	n/a	n/a	n/a	0.0972	n/a	
S10M000062			14265-44-2	Phosphate	ug/mL	99.4	<0.0381	<0.0381	n/a	n/a	n/a	n/a	0.0381	n/a	U
S10M000062			14808-79-8	Sulfate	ug/mL	101	<0.0219	22.3	n/a	n/a	n/a	n/a	0.131	n/a	

NA = Not Analyzed, ND = Not Detected

U - < Det Limit

Data Summary of All Results

Sample Group: 20100093

Customer Group or SDG Number: 222S20100093

Customer Sample ID: B23DN8

Sample Portion: Total

Sample#	R	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
S10M000060			16984-48-8	Fluoride	ug/mL	95.6	<6.16E-03	0.748	n/a	n/a	n/a	n/a	6.16E-03	n/a	
S10M000060			16887-00-6	Chloride	ug/mL	102	<3.10E-03	18.5	n/a	n/a	n/a	n/a	0.0341	n/a	
S10M000060			14797-65-0	Nitrite	ug/mL	93.2	<0.0400	<0.0400	n/a	n/a	n/a	n/a	0.0400	n/a	U
S10M000060			24959-67-9	Bromide	ug/mL	102	<0.0237	0.292	n/a	n/a	n/a	n/a	0.0237	n/a	
S10M000060			14797-55-8	Nitrate	ug/mL	101	<0.0162	118	n/a	n/a	n/a	n/a	0.178	n/a	
S10M000060			14265-44-2	Phosphate	ug/mL	99.4	<0.0381	<0.0381	n/a	n/a	n/a	n/a	0.0381	n/a	U
S10M000060			14808-79-8	Sulfate	ug/mL	101	<0.0219	35.7	n/a	n/a	n/a	n/a	0.241	n/a	

NA = Not Analyzed, ND = Not Detected

U - < Det Limit

Attachment 2

HOLDING TIME REPORT

Hold Time Report - IC Anions

Client Sample ID	Sample Group	Sample	Matrix	Method	Sample Date	Received Date	Analysis Date	Lapse Time (hours)	Holding Time Missed
B23D27	20100093	S10M000059	LIQUID	SW846-9056	02/01/10 09:39	02/02/10 15:40	2/3/2010 14:27	53	Y
B23DN8	20100093	S10M000060	LIQUID	SW846-9056	02/01/10 10:42	02/02/10 15:40	2/3/2010 15:00	52	Y
B23D35	20100093	S10M000061	LIQUID	SW846-9056	02/01/10 12:37	02/02/10 15:40	2/3/2010 15:11	51	Y
B23D53	20100093	S10M000062	LIQUID	SW846-9056	02/01/10 14:26	02/02/10 15:40	2/3/2010 16:20	50	Y

Attachment 3

RECEIPT PAPERWORK

ATL	SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST	LO-090-101 Rev <u>DD-1</u>
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Date Samples Received: 2-2-10 Group #: 222520100093
 Number of Samples: 7
 Sample Custodian: Tu=Colled

Sample Custodian to Complete:

Action	OK? (Y/N)	N/A	Comments
RSA/COC provided?	Y		
RSR provided?		N	
Verify GKI is complete		N	
Check that outer custody seal is intact, if present	Y		
Record cooler temperature in centigrade, as appropriate	N		<input checked="" type="checkbox"/> Check if no cooler and/or no ice
Samples are intact and in good condition	Y		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	Y		
● Date and time of sampling	Y		
● Sampling location or origin	Y		
● Container type, size, and number	Y		
● Analysis request is clear	Y		
● Signature of persons relinquishing and receiving samples	Y		
● Date and/or time of sample custody exchange	Y		
Verify that sample numbers on containers match the COC and/or RSA	Y		
Samples stored properly (e.g., refrigeration)	Y		

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

PM to Complete:

Samples acceptable for release? yes PM Initials dpr Date 2/2/2010

If No, comment on communication and resolution:

Other Comments:

Attachment 4

Request for Data Review

**03/02/2010
 RECHECK, RECOUNT, OR REANALYSIS ORDER
 CONTRACT NO MW6-SBB-A19981**

**222-S Lab Operations
 Hanford Works - 200W MSIN: T6-20
 Richland, WA 99352**

CHPRC Order Number: 100302222-S-R6175

Sample Delivery Group: 222S20100093

Special Instructions Please include the raw data (chromatograms, calibrations, QC) with the recheck response.

Samples(s)

Lab Sample ID	CHPRC Sample	Action	TAT	METHOD_NAME:
S10M000060	B23DN8	Recheck	15/15	9056_ANIONS_IC
S10M000062	B23D53	Recheck	15/15	9056_ANIONS_IC
S10M000061	B23D35	Recheck	15/15	9056_ANIONS_IC
S10M000059	B23D27	Recheck	15/15	9056_ANIONS_IC

Deliver Report Results to:CH2M Hill Plateau Remediation Company
 P.O. Box 1600
 Mail Stop - R3-60
 Richland, WA 99352
 C/O Mr. Mike Neely