



Friday, July 29, 2016

Dave Todak
CH2M HILL Plateau Remediation Company
2420 Stevens Center
Richland, WA 99352

Re: ALS Workorder: 1607122
Project Name: 100-HR-3 Long Term & Interim Action Monitoring - Water
Project Number: F16-039

Dear Mr. Todak:

Four water samples were received from CH2M HILL Plateau Remediation Company, on 7/8/2016. The samples were scheduled for the following analyses:

Metals

Inorganics

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie Ellingson".

ALS Environmental
Julie Ellingson
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1607122
Client Name: CH2M HILL Plateau Remediation Company
Client Project Name: 100-HR-3 Long Term & Interim Action Monitoring - Water
Client Project Number: F16-039
Client PO Number: BOA 54854

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
B35L65	1607122-1		WATER	06-Jul-16	12:31
B35L68	1607122-2		WATER	06-Jul-16	12:31
B35L71	1607122-3		WATER	06-Jul-16	12:31
B35L73	1607122-4		WATER	06-Jul-16	12:31

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-039-067	PAGE 1 OF 1
COLLECTOR Christine Agutter CHPRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9546, screened interval	PROJECT DESIGNATION 100-HR-3 Long Term & Interim Action Monitoring - Water	SAF NO. F16-039	COA 300115	AIR QUALITY	METHOD OF SHIPMENT FEDERAL EXPRESS
ICE CHEST NO. A WS-556	FIELD LOGBOOK NO. HNF-N-645-3/93	ACTUAL SAMPLE DEPTH 50.56'	BILL OF LADING/AIR BILL NO. 776489704000		ORIGINAL
ALS Environmental Ft. Collins	OFFSITE PROPERTY NO. 6804				
MATRIX* A=Air DL=Drum L=Liquid DS=Drum S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	PRESERVATION HNO3 to pH <2	COOL <=6C			
POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	HOLDING TIME 6 Months	14 Days			
	TYPE OF CONTAINER G/P	G/P			
	NO. OF CONTAINER(S) 1	1			
	VOLUME 500mL	250mL			
SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS			
		SEE ITEM (2) IN SPECIAL INSTRUCTIONS			
SAMPLE NO. B35L65	MATRIX* WATER	SAMPLE DATE JUL 06 2016	SAMPLE TIME 1231		

1607122

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME JUL 06 2016 1310	RECEIVED BY/STORED IN CHPRC	DATE/TIME JUL 06 2016 1310
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME JUL 06 2016 1400	RECEIVED BY/STORED IN CHPRC	DATE/TIME JUL 06 2016 1400
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME JUL 07 2016 0740	RECEIVED BY/STORED IN CHPRC	DATE/TIME JUL 07 2016 0740
RELINQUISHED BY/REMOVED FROM Janelle Zunker	DATE/TIME JUL 07 2016 0745	RECEIVED BY/STORED IN FEDEX	DATE/TIME JUL 07 2016 0745
RELINQUISHED BY/REMOVED FROM Fedex	DATE/TIME 7-8-16 0915	RECEIVED BY/STORED IN SIAH	DATE/TIME 7-8-16 0915
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
 (1) 6020_METALS_ICPMS: COMMON {Chromium, Lead};
 6020_METALS_ICPMS: COMMON (Add-on) {Uranium};
 6010_METALS_ICP: COMMON {Calcium, Magnesium, Potassium, Sodium};
 (2) 2320_ALKALINITY: COMMON (Add-on) {Bicarbonate};

LABORATORY SECTION 0	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION 3	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 5/12/2016 FSR ID = FSR32249 TRVL NUM = TRVL-16-143 A-6003-618 (REV 2)

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 1 OF 1	
COLLECTOR Christina Aguilera CHPRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9546, screened interval	PROJECT DESIGNATION 100-HR-3 Long Term & Interim Action Monitoring - Water	FIELD LOGBOOK NO. HNF-N-645-3/93	SAF NO. F16-039	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT FEDERAL EXPRESS
ICE CHEST NO. C025554	FIELD LOGBOOK NO. HNF-N-645-3/93	ACTUAL SAMPLE DEPTH 50.56'	COA 300115	ORIGINAL	
SHIPPED TO ALS Environmental Ft. Collins	OFFSITE PROPERTY NO. 9277-10	OFFSITE PROPERTY NO. 68804	BILL OF LADING/AIR BILL NO. 770689704000		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WF=Wipe X=Other	PRESCRIPTION HNO3 to pH <2	HOLDING TIME 6 Months	TYPE OF CONTAINER G/P	NO. OF CONTAINER(S) 1	VOLUME 500ml	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	SAMPLE ANALYSIS	SAMPLE DATE JUL 06 2016	SAMPLE TIME 1231	SPECIAL HANDLING AND/OR STORAGE		
SAMPLE NO. 2	MATRIX* WATER	FILTER				

1607122

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Christina Aguilera CHPRC	DATE/TIME JUL 06 2016 1320	RECEIVED BY/STORED IN CHPRC	DATE/TIME JUL 06 2016 1310	(1) 6020_METALS_ICPMS: COMMON {Chromium, Lead}; 6020_METALS_ICPMS: COMMON (Add-on) {Uranium}; 6010_METALS_ICP: COMMON {Calcium, Magnesium, Potassium, Sodium};	
RELINQUISHED BY/REMOVED FROM Christina Aguilera CHPRC	DATE/TIME JUL 06 2016 1400	RECEIVED BY/STORED IN Janelle Zunker CHPRC	DATE/TIME JUL 07 2016 0740	FILTER	
RELINQUISHED BY/REMOVED FROM Janelle Zunker CHPRC	DATE/TIME JUL 07 2016 0740	RECEIVED BY/STORED IN FedEx	DATE/TIME		
RELINQUISHED BY/REMOVED FROM FedEx	DATE/TIME 7-8-16 0915	RECEIVED BY/STORED IN Sgt Maly	DATE/TIME 7-8-16 0916		
RELINQUISHED 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		
PRINTED ON 5/12/2016		FSR ID = FSR32249		TRVL NUM = TRVL-16-143	
				A-6003-618 (REV 2)	

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-039-073	PAGE 1 OF 1
COLLECTOR Christina Aguilera ICP/PC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9546, screened Interval DUP	PROJECT DESIGNATION 100-HR-3 Long Term & Interim Action Monitoring - Water	FIELD LOGBOOK NO. HNF-2-645-3193	SAF NO. F16-039	AIR QUALITY	METHOD OF SHIPMENT FEDERAL EXPRESS
ICE CHEST NO. 605-554	OFFSITE PROPERTY NO. 12774	ACTUAL SAMPLE DEPTH 50.56'	COA 300115	BILL OF LADING/AIR BILL NO. 7766 8970 4000	
SHIPPED TO ALS Environmental Ft. Collins	PRESERVATION Cool <=6C	HOLDING TIME 6 Months	NO. OF CONTAINER(S) 1	ORIGINAL	

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS	SAMPLE DATE	SAMPLE TIME
A=Air DL=Drum L=Liquid S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	12774	6 Months	G/P	1	500mL	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	JUL 06 2016	1231
	SPECIAL HANDLING AND/OR STORAGE					250mL	SEE ITEM (2) IN SPECIAL INSTRUCTIONS		
B35L71	WATER								

6607122

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Christina Aguilera ICP/PC	DATE/TIME JUL 06 2016 1310	RECEIVED BY/STORED IN Lesly Wain ICP/PC	DATE/TIME JUL 06 2016 1310	(1) 6020_METALS_ICPMS: COMMON {Chromium, Lead}; 6020_METALS_ICPMS: COMMON (Add-on) {Uranium}; 6010_METALS_ICP: COMMON {Calcium, Magnesium, Potassium, Sodium}; (2) 2320_ALKALINITY: COMMON (Add-on) {Bicarbonate};	
RELINQUISHED BY/REMOVED FROM Christina Aguilera ICP/PC	DATE/TIME JUL 07 2016 1400	RECEIVED BY/STORED IN SSU #1	DATE/TIME JUL 07 2016 1400		
RELINQUISHED BY/REMOVED FROM Janetis Zupko ICP/PC	DATE/TIME JUL 07 2016 0915	RECEIVED BY/STORED IN Santib	DATE/TIME JUL 07 2016 0915		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED 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		

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-039-075	PAGE 1 OF 1
COLLECTOR Christina Agutter CHPRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9546, screened Interval DUP	PROJECT DESIGNATION 100-HR-3 Long Term & Interim Action Monitoring - Water	FIELD LOGBOOK NO. HMF-N-646-3/93	SAF NO. F16-039	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT GOVERNMENT VEHICLE
ICE CHEST NO. 6WS554	ACTUAL SAMPLE DEPTH 50.56'	OFFSITE PROPERTY NO. 127716	COA 300115	BILL OF LADING/AIR BILL NO. 7764 8970 4000	
SHIPPED TO ALS Environmental Ft. Collins	PRESERVATION HNO3 to pH <2	HOLDING TIME 6 Months	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
MATRIX* A=Air DL=Drum L=Liquid S=Soil O=Oil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	NO. OF CONTAINER(S) 1	TYPE OF CONTAINER G/P	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/JATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	VOLUME 500ml	SAMPLE ANALYSIS	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SPECIAL HANDLING AND/OR STORAGE	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	METHOD OF SHIPMENT GOVERNMENT VEHICLE			

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
9	WATER	JUL 06 2016	1231

FILTER

1607122

CHAIN OF POSSESSION		SIGN / PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Christina Agutter CHPRC	DATE/TIME JUL 06 2016 1310	RECEIVED BY/STORED IN Lesly Walker CHPRC	DATE/TIME JUL 06 2016 1310	(1) 6020_METALS_ICPMS: COMMON {Chromium, Lead}; 6020_METALS_ICPMS: COMMON (Add-on) {Uranium}; 6010_METALS_ICP: COMMON {Calcium, Magnesium, Potassium, Sodium};	
RELINQUISHED BY/REMOVED FROM Lesly Walker CHPRC	DATE/TIME JUL 07 2016 0740	RECEIVED BY/STORED IN Janelle Zunker CHPRC	DATE/TIME JUL 07 2016 0740	FILTER	
RELINQUISHED BY/REMOVED FROM Janelle Zunker CHPRC	DATE/TIME JUL 07 2016 0740	RECEIVED BY/STORED IN Fedex	DATE/TIME JUL 07 2016 0740		
RELINQUISHED BY/REMOVED FROM Fedex	DATE/TIME 7-8-16 0915	RECEIVED BY/STORED IN Sally Maly	DATE/TIME 7-8-16 0715		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED 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		



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CHPRC

Workorder No: 1607122

Project Manager: JME

Initials: SDM Date: 7-8-16

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	NONE	<input checked="" type="radio"/> YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	<input checked="" type="radio"/> N/A	YES	NO
15. Do any water samples contain sediment? Amount of sediment: ___ dusting ___ moderate ___ heavy	Amount N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 <input checked="" type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>SDP 1.8</u>			
No. of custody seals on cooler: <u>2</u>			
DOT Survey/Acceptance Information	External µR/hr reading: <u>12</u>		
	Background µR/hr reading: <u>11</u>		
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES / <input type="radio"/> NO / <input type="radio"/> NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 7/2/16

1607122

1607122

ORIGIN ID: PSCA (509) 373-3580
JANELLE ZUNKER
CH2M
6289 LATAH ST.
RICHLAND, WA 99354
UNITED STATES US

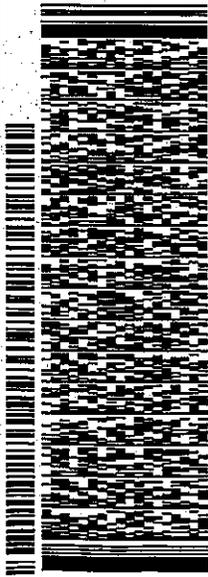
BILL THIRD PARTY

TO JULIE ELLINGSON
ALS GLOBAL
225 COMMERCE DRIVE

FORT COLLINS CO 80524
REF: 6804

(970) 480-1511
INV. PO.

DEPT.



FedEx Express



1.82

FRI - 08 JUL 10:30A

PRIORITY OVERNIGHT

TRK# 7766 8970 4000

DSR

80524

CO-US

XH FTCA



640J16C8D7ZF

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
 2. Fold the printed page along the horizontal line.
 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Metals Case Narrative

CH2M HILL Plateau Remediation Company

100-HR-3 Long Term & Interim Action Monitoring – Water – F16-039

Work Order Number: 1607122

1. This report consists of 4 water samples for total recoverable or dissolved metals.
2. The samples were received cool and intact by ALS on 07/08/16.
3. The samples for dissolved metals had been filtered prior to receipt. All samples had a pH less than 2 upon receipt.
4. The samples were prepared and analyzed based on SW-846, 3rd Edition procedures.

For analysis by Trace ICP and ICP-MS, the samples were digested following method 3005A and the current revision of SOP 806.

5. Analysis by Trace ICP followed method 6010B and the current revision of SOP 834.

Analysis by ICP-MS followed method 6020A and the current revision of SOP 827.

6. All standards and solutions are NIST traceable and were used within their recommended shelf life.
7. The samples were prepared and analyzed within the established hold times.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.
 - A preparation (method) blank and laboratory control sample were digested and analyzed with the samples in this digestion batch.
 - The preparation (method) blank associated with this digestion batch was below the reporting limit for the requested analytes. Sodium was detected above the MDL. Sample results have been compared to the blank results.



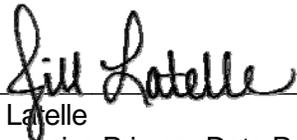
- All laboratory control sample criteria were met.
 - All initial and continuing calibration blanks were below the reporting limit for the requested analytes.
 - All initial and continuing calibration verifications were within the acceptance criteria for the requested analytes.
 - The interference check samples and high standard readbacks associated with Method 6010B were within acceptance criteria.
 - The interference check samples associated with Method 6020A were analyzed.
9. Matrix specific quality control procedures.

Sample 1607122-2 was designated as the quality control sample for each ICP analysis.

Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
 - A serial dilution was analyzed with each ICP batch. All acceptance criteria were met.
10. It is a standard practice that samples for ICP-MS are analyzed at a dilution. The 10X factor can be considered an artifact of the prep and does not indicate a secondary dilution and is therefore not flagged as a dilution.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.



Jill Latelle
Inorganics Primary Data Reviewer

7/20/16
Date



Julie Elliza
Inorganics Final Data Reviewer

7/28/16
Date



Inorganic Data Reporting Qualifiers

The following qualifiers are used as needed by the laboratory when reporting results of inorganic analyses.

- Result qualifier -- A "B" is entered if the reported value was obtained from a reading that was less than the Reporting Limit but greater than or equal to the Method Detection Limit (MDL). If the analyte was analyzed for but not detected a "U" is entered. For samples, negative values are reported as non-detects ("U" flagged). For blanks, if the absolute value of the negative value is above the MDL and below the reporting limit, then the result is "B" flagged.
- QC qualifier -- Specified entries and their meanings are as follows:
 - E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 - M - Duplicate injection precision was not met.
 - N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 - Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.
 - C - The analyte was detected in both the sample and the associated QC blank, and the sample concentration was $\leq 20X$ the blank concentration.
 - D - Analyte was reported at a secondary dilution factor, typically $DF > 1$ (i.e., the primary preparation required dilution to either bring the analyte within the calibration range or to minimize interference). Required for organics/wetchem if the sample was diluted.

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L65
Lab ID:	1607122-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 13-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-1
Run ID: IT160713-1A6
Cleanup: NONE
Basis: As Received
File Name: 160713A.

Analyst: Steve Workman
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6010_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-70-2	CALCIUM	1	46000	1000	23		
7439-95-4	MAGNESIUM	1	18000	750	21		
7440-09-7	POTASSIUM	1	5300	1000	170		
7440-23-5	SODIUM	1	27000	1000	26		

Data Package ID: *it1607122-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L68
Lab ID:	1607122-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 13-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-1
Run ID: IT160713-1A6
Cleanup: NONE
Basis: As Received
File Name: 160713A.

Analyst: Steve Workman
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6010_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-70-2	CALCIUM	1	46000	1000	23		
7439-95-4	MAGNESIUM	1	18000	750	21		
7440-09-7	POTASSIUM	1	5400	1000	170		
7440-23-5	SODIUM	1	27000	1000	26		

Data Package ID: *it1607122-1*

Total Recoverable ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L71
Lab ID:	1607122-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 06-Jul-16

Date Extracted: 12-Jul-16

Date Analyzed: 13-Jul-16

Prep Method: SW3005 Rev A

Prep Batch: IP160712-4

QC Batch ID: IP160712-4-1

Run ID: IT160713-1A6

Cleanup: NONE

Basis: As Received

File Name: 160713A.

Analyst: Steve Workman

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

Analysis ReqCode: 6010_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-70-2	CALCIUM	1	45000	1000	23		
7439-95-4	MAGNESIUM	1	18000	750	21		
7440-09-7	POTASSIUM	1	5200	1000	170		
7440-23-5	SODIUM	1	26000	1000	26		

Data Package ID: *it1607122-1*

Dissolved ICP Metals

Method SW6010B

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L73
Lab ID:	1607122-4

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 13-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-1
Run ID: IT160713-1A6
Cleanup: NONE
Basis: As Received
File Name: 160713A.

Analyst: Steve Workman
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6010_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-70-2	CALCIUM	1	46000	1000	23		
7439-95-4	MAGNESIUM	1	18000	750	21		
7440-09-7	POTASSIUM	1	5300	1000	170		
7440-23-5	SODIUM	1	27000	1000	26		

Data Package ID: *it1607122-1*

Total Recoverable ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L65
Lab ID:	1607122-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 14-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-2
Run ID: IM160713-11A6
Cleanup: NONE
Basis: As Received
File Name: 182SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6020_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-47-3	CHROMIUM	10	5.7	10	1.1	B	
7439-92-1	LEAD	10	0.16	2	0.16	U	
7440-61-1	URANIUM	10	3	0.1	0.027		

Data Package ID: *im1607122-1*

Dissolved ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L68
Lab ID:	1607122-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 14-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-2
Run ID: IM160713-11A6
Cleanup: NONE
Basis: As Received
File Name: 183SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6020_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-47-3	CHROMIUM	10	5.4	10	1.1	B	
7439-92-1	LEAD	10	0.16	2	0.16	U	
7440-61-1	URANIUM	10	3	0.1	0.027		

Data Package ID: *im1607122-1*

Total Recoverable ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L71
Lab ID:	1607122-3

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 14-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-2
Run ID: IM160713-11A6
Cleanup: NONE
Basis: As Received
File Name: 190SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6020_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-47-3	CHROMIUM	10	6.3	10	1.1	B	
7439-92-1	LEAD	10	0.16	2	0.16	U	
7440-61-1	URANIUM	10	3.2	0.1	0.027		

Data Package ID: im1607122-1

Dissolved ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Field ID:	B35L73
Lab ID:	1607122-4

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 14-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-2
Run ID: IM160713-11A6
Cleanup: NONE
Basis: As Received
File Name: 191SMPL_

Analyst: Brent A. Stanfield
Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
Clean DF: 1

Analysis ReqCode: 6020_METALS_I

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-47-3	CHROMIUM	10	5.1	10	1.1	B	
7439-92-1	LEAD	10	0.16	2	0.16	U	
7440-61-1	URANIUM	10	3.1	0.1	0.027		

Data Package ID: *im1607122-1*

7/29/2016
ALS1607122

ICP Metals

Method SW6010B

Method Blank

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Lab ID: IP160712-4MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12-Jul-16

Date Analyzed: 13-Jul-16

Prep Batch: IP160712-4

QCBatchID: IP160712-4-1

Run ID: IT160713-1A6

Cleanup: NONE

Basis: N/A

File Name: 160713A.

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-70-2	CALCIUM	1	23	1000	23	U	
7439-95-4	MAGNESIUM	1	21	750	21	U	
7440-09-7	POTASSIUM	1	170	1000	170	U	
7440-23-5	SODIUM	1	77	1000	26	B	

Data Package ID: it1607122-1

Date Printed: Wednesday, July 20, 2016

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7/29/2016
ALS1607122

ICP Metals

Method SW6010B

Laboratory Control Sample

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Lab ID: IP160712-4LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 07/12/2016

Date Analyzed: 07/13/2016

Prep Method: SW3005A

Prep Batch: IP160712-4

QCBatchID: IP160712-4-1

Run ID: IT160713-1A6

Cleanup: NONE

Basis: N/A

File Name: 160713A.

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-70-2	CALCIUM	40000	40400	1000		101	80 - 120%
7439-95-4	MAGNESIUM	40000	40000	750		100	80 - 120%
7440-09-7	POTASSIUM	40000	40600	1000		101	80 - 120%
7440-23-5	SODIUM	40000	40000	1000		100	80 - 120%

Data Package ID: *it1607122-1*

Date Printed: Wednesday, July 20, 2016

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ICP Metals

Method SW6010B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F1

Field ID: B35L68
LabID: 1607122-2MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 13-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-1
Run ID: IT160713-1A6
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name: 160713A.

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7440-70-2	CALCIUM	46000		86300		1000	40000	102	80 - 120%
7439-95-4	MAGNESIUM	18000		58400		750	40000	101	80 - 120%
7440-09-7	POTASSIUM	5400		49000		1000	40000	109	80 - 120%
7440-23-5	SODIUM	27000		68900		1000	40000	105	80 - 120%

Field ID: B35L68
LabID: 1607122-2MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 13-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-1
Run ID: IT160713-1A6
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name: 160713A.

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7440-70-2	CALCIUM	86000		40000	101	1000	20	0
7439-95-4	MAGNESIUM	58100		40000	100	750	20	1
7440-09-7	POTASSIUM	48400		40000	108	1000	20	1
7440-23-5	SODIUM	67900		40000	103	1000	20	1

Data Package ID: *it1607122-1*

7/29/2016
ALS1607122

ICPMS Metals

Method SW6020A

Method Blank

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Lab ID: IP160712-4MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12-Jul-16

Date Analyzed: 14-Jul-16

Prep Batch: IP160712-4

QCBatchID: IP160712-4-2

Run ID: IM160713-11A6

Cleanup: NONE

Basis: N/A

File Name: 177SMPL_

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7440-47-3	CHROMIUM	10	1.1	10	1.1	U	
7439-92-1	LEAD	10	0.16	2	0.16	U	
7440-61-1	URANIUM	10	0.027	0.1	0.027	U	

Data Package ID: im1607122-1

Date Printed: Wednesday, July 20, 2016

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ALS1607122

ICPMS Metals

Method SW6020A

Laboratory Control Sample

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-03

Lab ID: IM160712-4LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 07/12/2016

Date Analyzed: 07/14/2016

Prep Method: SW3005A

Prep Batch: IP160712-4

QCBatchID: IP160712-4-2

Run ID: IM160713-11A6

Cleanup: NONE

Basis: N/A

File Name: 179SMPL_

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
7440-47-3	CHROMIUM	500	460	10		92	80 - 120%
7439-92-1	LEAD	50	49.5	2		99	80 - 120%
7440-61-1	URANIUM	10	9.51	0.1		95	80 - 120%

Data Package ID: *im1607122-1*

Date Printed: Wednesday, July 20, 2016

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ICPMS Metals

Method SW6020A

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F1

Field ID: B35L68
LabID: 1607122-2MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 14-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-2
Run ID: IM160713-11A6
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name: 186SMPL_

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
7440-47-3	CHROMIUM	5.4	B	490		10	500	97	75 - 125%
7439-92-1	LEAD	0.16	U	52.6		2	50	105	75 - 125%
7440-61-1	URANIUM	3		13.2		0.1	10	102	75 - 125%

Field ID: B35L68
LabID: 1607122-2MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 06-Jul-16
Date Extracted: 12-Jul-16
Date Analyzed: 14-Jul-16
Prep Method: SW3005 Rev A

Prep Batch: IP160712-4
QCBatchID: IP160712-4-2
Run ID: IM160713-11A6
Cleanup: NONE
Basis: As Received

Sample Aliquot: 50 ml
Final Volume: 50 ml
Result Units: UG/L
File Name: 189SMPL_

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
7440-47-3	CHROMIUM	474		500	94	10	20	3
7439-92-1	LEAD	49.6		50	99	2	20	6
7440-61-1	URANIUM	12.7		10	97	0.1	20	4

Data Package ID: *im1607122-1*



Inorganics Case Narrative

CH2M HILL Plateau Remediation Company 100-HR-3 Long Term & Interim Action Monitoring - Water - Water -- F16-039

Work Order Number: 1607122

1. This report consists of 2 water samples.
2. The samples were received cool and intact by ALS on 07/08/16.
3. The samples were prepared for analysis based on Standard Methods for the Examination of Water and Wastewater, 20th Edition 1998 procedures.
4. The samples were analyzed following Standard Method procedures for the current revision of the following SOP and method:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Bicarbonate	SM2320B	1106

5. All standards and solutions were used within their recommended shelf life.
6. The sample was prepared and analyzed within the established hold time for this analysis.

All in house quality control procedures were followed, as described below.

7. General quality control procedures.
 - n A preparation (method) blank, laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed with the samples in this preparation batch.
 - n The method blank associated with this batch was below the reporting limit for the requested analyte.
 - n All laboratory control sample criteria were met.



8. Matrix specific quality control procedures.

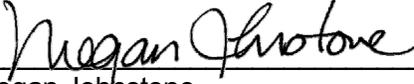
Sample 1607122-1 was designated as the quality control sample for this analysis.

Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

n A sample duplicate was prepared and analyzed with this batch. All guidance criteria for precision were met.

9. A reduced aliquot was taken of the samples for the bicarbonate analysis. Reporting limits were elevated accordingly.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.



Megan Johhstone
Inorganics Primary Data Reviewer

7/19/16
Date



Audie Elliza
Inorganics Final Data Reviewer

7/28/16
Date



Data Reporting Qualifiers

The following qualifiers are used as needed by the laboratory when reporting results of inorganic analyses.

- Result qualifier -- A "B" is entered if the reported value was obtained from a reading that was less than the Reporting Limit but greater than or equal to the Method Detection Limit (MDL). If the analyte was analyzed for but not detected a "U" is entered. For samples, negative values are reported as non-detects ("U" flagged). For blanks, if the absolute value of the negative value is above the MDL and below the reporting limit, then the result is "B" flagged.
- QC qualifier -- Specified entries and their meanings are as follows:
 - E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 - M - Duplicate injection precision was not met.
 - N - Spiked sample recovery not within control limits.
 - Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - C - The analyte was detected in both the sample and the associated QC blank, and the sample concentration was $\leq 5X$ the blank concentration.
 - D - Analyte was reported at a secondary dilution factor, typically $DF > 1$ (i.e., the primary preparation required dilution to either bring the analyte within the calibration range or to minimize interference). Required for organics/wetchem if the sample was diluted.

BICARBONATE AS CaCO3

Method SM2320B

Sample Results

Lab Name: ALS -- Fort Collins
Client Name: CH2M HILL Plateau Remediation Company
Client Project ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-039
Work Order Number: 1607122 **Final Volume:** 100 ml
Reporting Basis: As Received **Matrix:** WATER
Prep Method: NONE **Result Units:** UG/L
Analyst: Kristina L. Peters

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	Flag	Sample Aliquot
B35L65	1607122-1	07/06/2016	07/11/2016	07/11/2016	N/A	1	130000	20000		25 ml
B35L71	1607122-3	07/06/2016	07/11/2016	07/11/2016	N/A	1	140000	20000		25 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *ak1607122-1*

BICARBONATE AS CaCO3

Method SM2320B

Method Blank

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-0

Lab ID: AK160711-1MB

Sample Matrix: WATER
% Moisture: N/A

Prep Batch: AK160711-1
QCBatchID: AK160711-1-3
Run ID: AK160711-1A1
Cleanup: NONE
Basis: N/A

Sample Aliquot: 100 ml
Final Volume: 100 ml
Result Units: UG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ	Flag
AK160711-1MB	7/11/2016	07/11/2016	N/A	1	5000	5000	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak1607122-1

TOTAL ALKALINITY AS CaCO3

Method SM2320B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-0

Lab ID: AK160711-1LCS	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 11-Jul-16 Date Analyzed: 11-Jul-16 Prep Method: NONE	Prep Batch: AK160711-1 QCBatchID: AK160711-1-3 Run ID: AK160711-1A1 Cleanup: NONE Basis: N/A	Sample Aliquot: 100 ml Final Volume: 100 ml Result Units: UG/L
-----------------------	--	---	---

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
	TOTAL ALKALINITY AS CaCO3	100000	101000	5000		101	85 - 115

Lab ID: AK160711-1LCSD	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 11-Jul-16 Date Analyzed: 11-Jul-16 Prep Method: NONE	Prep Batch: AK160711-1 QCBatchID: AK160711-1-3 Run ID: AK160711-1A1 Cleanup: NONE Basis: N/A	Sample Aliquot: 100 ml Final Volume: 100 ml Result Units: UG/L
------------------------	--	---	---

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
	TOTAL ALKALINITY AS CaCO3	100000	100000	5000		100	15	1

Data Package ID: ak1607122-1

BICARBONATE AS CaCO3

Method SM2320B

Duplicate Sample Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1607122

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: 100-HR-3 Long Term & Interim Action Monitoring - Water F16-0

Reporting Basis: As Received

Sample Aliquot: 25 ml

Final Volume: 100ml

Matrix: WATER

Result Units UG/L

Client Sample ID	Lab ID	Date Prepared	Date Analyzed	Dilution Factor	Duplicate Result	Dup Qual	Sample Result	Samp Qual	Reporting Limit	RPD	RPD Limit
B35L65	1607122-1D	07/11/2016	07/11/2016	1	128000		130000		20000	1	15

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: ak1607122-1