

March 26, 2015

Analytical Data Package Prepared For  
**CH2M Hill Plateau Remediation**

Chemical Analysis By  
**TestAmerica Inc**

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

Assigned Laboratory Code: TARL

Data Package Contains 9 Pages

Report No.: 65127

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
WC0034	F11-002	B30C71	J5C170425-1	M6DMG1AA	M6DMG1AA	5074173
		B30C73	J5C170425-2	M6DMJ1AA	M6DMJ1AA	5074173
		B30C75	J5C170425-3	M6DMK1AA	M6DMK1AA	5074173
WC0037	F12-024	B30BY4 DUP	J5C170430-3	M6DNQ1AC	M6DNQ1AC	5074173

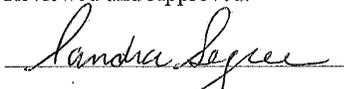
Sample Date: 3/17/2015

Receipt Date: 3/17/2015

Data Deliverable: 3/26/2015

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

Reviewed and Approved:

  
Project Manager



## Certificate of Analysis

CH2M Hill Plateau Remediation Company  
P.O. Box 1600  
Mail Stop – R3-60  
Richland, WA 99352

March 26, 2015

Attention: Scot Fitzgerald

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SAF Number	:	F11-002
Date SDG Closed	:	March 17, 2015
Number of Samples	:	Three (3)
Sample Type	:	Water
SDG Number	:	WC0034
Data Deliverable	:	30-Day / Summary

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### CASE NARRATIVE

#### **I. Introduction**

March 17, 2015, three samples were received at TestAmerica (TARL). Upon receipt, the samples were assigned laboratory ID numbers to correspond with the CH2M specific IDs.

#### **II. Sample Receipt**

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

#### **III. Analytical Results/Methodology**

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

The requested analyses were:

**Chemical Analysis**  
Hexavalent Chromium by EPA method 7196A

#### **IV. Quality Control**

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted

CH2M Hill Plateau Remediation Company  
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in the "Comments" section.

QC and sample results are reported in the same units.

**V. Comments**

**Chemical Analysis**

Hexavalent Chromium by EPA method 7196A

No analytical or quality issues were noted. The sample results and associated batch QC results are within contractual requirements.

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager (or designee) and the laboratory's client services representative as verified by their signatures on this report.

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-002-098	PAGE 1 OF 1
COLLECTOR S.W. King CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION 100-KR-4 INF VAL T-K3 (KP-16) -001	PROJECT DESIGNATION 100-KR-4 Pump and Treat Influent & Effluent Tanks - Water	SAF NO. F11-002		AIR QUALITY	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N 306.69	ACTUAL SAMPLE DEPTH N/A	COA 302891	METHOD OF SHIPMENT GOVERNMENT VEHICLE	<b>ORIGINAL</b>
SHIPPED TO TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* A=Air DL=Drum L=Liquid S=Soil O=Oil SE=Sediment T=Tissue V=Vegetation W=Water WF=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/REMARKS *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/DATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	PRESERVATION Cool <=6C	HOLDING TIME 24 Hours	TYPE OF CONTAINER ag	NO. OF CONTAINER(S) 1	VOLUME 500ml	SAMPLE ANALYSIS 7196.086: COMBION;
SPECIAL HANDLING AND/OR STORAGE							
SAMPLE NO. B30C71	MATRIX* WATER	SAMPLE DATE MAR 17 2015	SAMPLE TIME 1242				

JSCINDHAS  
WCOB34  
ml6Dmb



CHAIN OF POSSESSION		SIGN / PRINT NAMES		SPECIAL INSTRUCTIONS TRVL-15-018	
RELINQUISHED BY/REMOVED FROM S.W. King CHPRC	DATE/TIME MAR 17 2015 1335	RECEIVED BY/STORED IN I. BOCK, TARI BOCK	DATE/TIME MAR 17 2015 1335		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
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	

TRVL-15-018

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F-11-002-100	PAGE 1 OF 1
COLLECTOR S.W. King CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION 100-KR-4 INF VAL T-K3 (KP-16) -001 FTB	PROJECT DESIGNATION 100-KR-4 Pump and Treat Influent & Effluent Tanks - Water	FIELD LOGBOOK NO. ANF.N.506.65	SAF NO. F-11-002	AIR QUALITY	
ICE CHEST NO.	ACTUAL SAMPLE DEPTH N/A	OFFSITE PROPERTY NO. N/A	COA 302891	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica Incorporated, Richland	BILL OF LADING/AIR BILL NO. N/A				

MATRIX*	PRESERVATION	Cool <=6C
A=Air	HOLDING TIME	24 Hours
DL=Drum	TYPE OF CONTAINER	ag
Liquids	NO. OF CONTAINER(S)	1
DS=Drum	VOLUME	500ml
Solids	SAMPLE ANALYSIS	60
L=Liquid		7196 CR6; COMMON;
O=Oil		
S=Soil		
SE=Sediment		
T=Tissue		
V=Vegetation		
W=Water		
WI=Wipe		
X=Other		

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B30C73	WATER	MAR 17 2015	1215

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME MAR 17 2015 1355	RECEIVED BY/STORER IN J. Bock, TARIK	DATE/TIME MAR 17 2015 1355	TRVL-15-018	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORER IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORER IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORER IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORER IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORER IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORER 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		F11-002-102	PAGE 1 OF 1
COLLECTOR S.W. King CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION 100-KR-4, EFF VAL T-K5 (FILTER VENT)-001	PROJECT DESIGNATION 100-KR-4 Pump and Treat Influent & Effluent Tanks - Water	SAF NO. F11-002	COA 302891	AIR QUALITY	<input type="checkbox"/>
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N 506 69	ACTUAL SAMPLE DEPTH N/A	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL	
SHIPPED TO TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* A=Air DL=Drum L=Liquid S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/DATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	PRESERVATION Cool <=6C	HOLDING TIME 24 Hours	TYPE OF CONTAINER ag	NO. OF CONTAINER(S) 1	VOLUME 100ml	SAMPLE ANALYSIS 7196.06: COMMON
SPECIAL HANDLING AND/OR STORAGE		SAMPLE DATE MAR 17 2015	SAMPLE TIME 1248				
B30C75	WATER	MATRIX*					

SSCIN0425  
W20034  
ML6DMK

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS TRVL-15-018	
RELINQUISHED BY/REMOVED FROM S.W. King	DATE/TIME MAR 17 2015 1355	RECEIVED BY/STORED IN J. Bock	DATE/TIME MAR 17 2015 1355		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
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		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD		DISPOSED BY		
PRINTED ON 3/17/2015			DATE/TIME		

TRVL-15-018

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Sample Check-in List

Date/Time Received: 3-17-15/1335 Container GM Screen Result: (Airlock) 20 cpm Initials [B]
Sample GM Screen Result (Sample Receiving) 20 cpm Initials [B]

Client: FLH SDG #: W00034 SAF #: F11-002 NA [ ]

Lot Number: JSC170425

Chain of Custody # F11-002-098, 100, 102

Shipping Container ID or Air Bill Number : hand deliv. NA [ ]

Samples received inside shipping container/cooler/box Yes [B] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [B]

2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [B]

3. Cooler temperature: 5.1 °C IU NA [ ]

4. Vermiculite/packing materials is NA [B] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [B] No [ ]

6. Number of samples received (Each sample may contain multiple bottles): 3

7. Containers received: 3 x 60 mL AB

8. Sample holding times exceeded? NA [ ] Yes [ ] No [B]

9. Samples have: tape hazard labels [B] custody seals [B] appropriate sample labels

10. Matrix: A (FLT, Wipe, Solid, Soil) [B] I (Water) S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples: [B] are in good condition are leaking are broken
have air bubbles (Only for samples requiring no head space) Other

12. Sample pH appropriate for analysis requested Yes [B] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO3 added and pH after addition on table)

13. Were any anomalies identified in sample receipt? Yes [ ] No [B]

14. Description of anomalies (include sample numbers): NA [B]

15. Sample Location, Sample Collector Listed on COC? \* Yes [B] No [ ]

\*For documentation only. No corrective action needed.

16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [B] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:

Signature: [Signature] Date: 3-17-15

Client Notification needed? Yes [ ] No [B] Date: \_\_\_\_\_

By: \_\_\_\_\_

Person contacted: \_\_\_\_\_

No action necessary; process as is

Project Manager Whitney M. Retari Date 3/17/15

March 26, 2015

Sample Results Summary

Date: 26-Mar-15

TestAmerica Inc TARL

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

Report No. : 65127

SDG No: WC0034

Batch Client ID	Date Sampled	Work Order No.	Parameter	Result	Qual	Units	MDL	RL	Date Analyzed	Dil Fct
<b>5074173 7196_CR6 ,WATER</b>										
B30C71	03/17/15 12:42	M6DMG1AA	HEXCHROME	0.00570		mg/L	0.0015	0.004	03/17/15 16:40	1
B30C73	03/17/15 12:15	M6DMJ1AA	HEXCHROME	<0.00150	U	mg/L	0.0015	0.004	03/17/15 16:41	1
B30C75	03/17/15 12:48	M6DMK1AA	HEXCHROME	<0.00150	U	mg/L	0.0015	0.004	03/17/15 16:41	1

No. of Results: 3

TestAmerica Inc  
rptTALRchSample  
SumC2 V5.3.6.8  
A2002

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

March 26, 2015

QC Results Summary

Date: 26-Mar-15

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 65127

SDG No.: WC0037

Batch	Work Work No.	Parameter	Result	Qual	Units	LCS Recovery	MDL	RL	RPD	Dil Fct
<b>7196_CR6</b>										
5074173 DUP, B30BY4 DUP	M6DNQ1AC	HEXCHROME	<0.00150 U		mg/L		0.0015	0.004	0.0	1
5074173 MS, B30C87	M6DL81AC	HEXCHROME	0.0495		mg/L	99%	0.0015	0.004		1
5074173 BLANK,	M6DN91AA	HEXCHROME	<0.00150 U		mg/L		0.0015	0.004		1
5074173 LCS,	M6DN91AC	HEXCHROME	0.245		mg/L	98%	0.0015	0.004		1

No. of Results: 4

TestAmerica Inc U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.  
rptTALRchQcSum  
maryC V5.3.6.8  
A2002