

Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

JAN 31 2008

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Subject: Request for Area of Concern Analytical Data from an April 2006 Sampling Event

Dear Mr. Bearzi:


The purpose of this letter is to provide you with the analytical results of the sampling conducted for six Areas of Concern (AOC): 001ac, 001ae, 001r, 001v, 001u, and 001w, in April 2006. This information was requested by your staff on January 23, 2008. Samples of soil were collected by the U.S. Department of Energy and Washington TRU Solutions (the Permittees) in the presence of New Mexico Environment Department Oversight Bureau (NMED) staff on April 20, 2006. The samples were split with the NMED and independent analysis was performed, attached are the resulting laboratory reports. The Permittees are providing this information to the NMED for inclusion in the related Administrative Record.


A correlation of the analytical results with the AOC sampled is as follows:

AOC 001r- WST-06-020
AOC 001w - WST-060021
AOC 001v- WST-06-023
AOC 001ae - WST-06-024
AOC 001ae - WST-06-025 (duplicate sample of AOC 001ae)
AOC 001u - WST-06-26
AOC 001ac - WST-06-27

If you have any questions or need additional information, please contact Mr. Jody Plum at (575) 234-7462.

Sincerely,


David C. Moody, Manager
Carlsbad Field Office


M. F. Sharif, General Manager
Washington TRU Solutions LLC

Enclosure

cc: w/ enclosure
S. Zappe, CBFO

cc: w/o enclosure
J. Keiling, CBFO
*ED denotes electronic distribution

CBFO:AMO:HLP:KJB:08-0406:UFC5487



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Analytical and Quality Control Report

Steve Travis
WRES
P.O.Box 2078
Carlsbad, NM, 88221-2078

Report Date: May 4, 2006

Work Order: 6042610



Project Number: 403436-4

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
88665	WST-06-020	soil	2006-04-20	08:20	2006-04-26
88666	WST-06-021	soil	2006-04-20	08:50	2006-04-26
88668	WST-06-023	soil	2006-04-20	10:30	2006-04-26
88669	WST-06-024	soil	2006-04-20	11:20	2006-04-26
88670	WST-06-025	soil	2006-04-20	11:20	2006-04-26
88671	WST-06-026	soil	2006-04-20	13:20	2006-04-26
88672	WST-06-027	soil	2006-04-20	13:45	2006-04-26

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 88665 - WST-06-020

Analysis: Ba, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		23.8	mg/Kg	1	1.00

Sample: 88665 - WST-06-020

Analysis: Cr, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		3.72	mg/Kg	1	1.00

Sample: 88665 - WST-06-020

Analysis: Pb, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		3.51	mg/Kg	1	1.00

Sample: 88665 - WST-06-020

Analysis: Tl, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Sample: 88666 - WST-06-021

Analysis: Ba, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		296	mg/Kg	1	1.00

Sample: 88666 - WST-06-021

Analysis: Cr, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		6.49	mg/Kg	1	1.00

Sample: 88666 - WST-06-021

Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		7.09	mg/Kg	1	1.00

Sample: 88666 - WST-06-021

Analysis: Tl, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Sample: 88668 - WST-06-023

Analysis: Ba, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		191	mg/Kg	1	1.00

Sample: 88668 - WST-06-023

Analysis: Cr, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		11.8	mg/Kg	1	1.00

Sample: 88668 - WST-06-023

Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		6.26	mg/Kg	1	1.00

Sample: 88668 - WST-06-023

Analysis: Tl, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Sample: 88669 - WST-06-024

Analysis: Ba, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		150	mg/Kg	1	1.00

Sample: 88669 - WST-06-024

Analysis: Cr, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		2.56	mg/Kg	1	1.00

Sample: 88669 - WST-06-024

Analysis: Pb, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<1.00	mg/Kg	1	1.00

Sample: 88669 - WST-06-024

Analysis: Tl, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Sample: 88670 - WST-06-025

Analysis: Ba, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		160	mg/Kg	1	1.00

Sample: 88670 - WST-06-025

Analysis: Cr, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		2.23	mg/Kg	1	1.00

Sample: 88670 - WST-06-025

Analysis: Pb, Total
QC Batch: 26133
Prep Batch: 22938

Analytical Method: S 6010B
Date Analyzed: 2006-04-27
Sample Preparation: 2006-04-26

Prep Method: S 3050B
Analyzed By: RR
Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<1.00	mg/Kg	1	1.00

Sample: 88670 - WST-06-025

Analysis: Tl, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Sample: 88671 - WST-06-026

Analysis: Ba, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		194	mg/Kg	1	1.00

Sample: 88671 - WST-06-026

Analysis: Cr, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		3.15	mg/Kg	1	1.00

Sample: 88671 - WST-06-026

Analysis: Pb, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		<1.00	mg/Kg	1	1.00

Sample: 88671 - WST-06-026

Analysis: Tl, Total Analytical Method: S 6010B Prep Method: S 3050B
QC Batch: 26133 Date Analyzed: 2006-04-27 Analyzed By: RR
Prep Batch: 22938 Sample Preparation: 2006-04-26 Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Sample: 88672 - WST-06-027

Analysis: Ba, Total	Analytical Method: S 6010B	Prep Method: S 3050B
QC Batch: 26133	Date Analyzed: 2006-04-27	Analyzed By: RR
Prep Batch: 22938	Sample Preparation: 2006-04-26	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Barium		116	mg/Kg	1	1.00

Sample: 88672 - WST-06-027

Analysis: Cr, Total	Analytical Method: S 6010B	Prep Method: S 3050B
QC Batch: 26133	Date Analyzed: 2006-04-27	Analyzed By: RR
Prep Batch: 22938	Sample Preparation: 2006-04-26	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Chromium		4.89	mg/Kg	1	1.00

Sample: 88672 - WST-06-027

Analysis: Pb, Total	Analytical Method: S 6010B	Prep Method: S 3050B
QC Batch: 26133	Date Analyzed: 2006-04-27	Analyzed By: RR
Prep Batch: 22938	Sample Preparation: 2006-04-26	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		4.13	mg/Kg	1	1.00

Sample: 88672 - WST-06-027

Analysis: Tl, Total	Analytical Method: S 6010B	Prep Method: S 3050B
QC Batch: 26133	Date Analyzed: 2006-04-27	Analyzed By: RR
Prep Batch: 22938	Sample Preparation: 2006-04-26	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Thallium		<1.00	mg/Kg	1	1.00

Method Blank (1) QC Batch: 26133

Parameter	Flag	MDL Result	Units	RL
Total Barium	1	<0.601	mg/Kg	1

¹Not entered

Method Blank (1) QC Batch: 26133

Parameter	Flag	MDL Result	Units	RL
Total Chromium	2	<0.125	mg/Kg	1

Method Blank (1) QC Batch: 26133

Parameter	Flag	MDL Result	Units	RL
Total Lead	3	<0.650	mg/Kg	1

Laboratory Control Spike (LCS-1) QC Batch: 26133

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	81.5	90.1	mg/Kg	1	100	<0.601	82	10	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 26133

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Chromium	8.69	9.58	mg/Kg	1	10.0	<0.125	87	10	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 26133

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	40.1	44.0	mg/Kg	1	50.0	<0.650	80	9	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1) QC Batch: 26133

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Thallium	40.1	44.2	mg/Kg	1	50.0	<0.512	80	10	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 26133 Spiked Sample: 88665

²Not entered
³Not entered

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Barium	118	107	mg/Kg	1	100	23.8	94	10	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 26133 Spiked Sample: 88665

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Chromium	14.6	12.8	mg/Kg	1	10.0	3.72	109	13	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 26133 Spiked Sample: 88665

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Lead	49.9	43.5	mg/Kg	1	50.0	3.51	93	14	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) QC Batch: 26133 Spiked Sample: 88665

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Thallium	45.1	41.4	mg/Kg	1	50.0	<0.512	90	9	75 - 125	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1) QC Batch: 26133

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/Kg	1.00	1.01	101	90 - 110	2006-04-27

Standard (ICV-1) QC Batch: 26133

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/Kg	1.00	0.997	100	90 - 110	2006-04-27

Standard (ICV-1) QC Batch: 26133

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/Kg	1.00	0.999	100	90 - 110	2006-04-27

Standard (ICV-1) QC Batch: 26133

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/Kg	1.00	1.00	100	90 - 110	2006-04-27

Standard (CCV-1) QC Batch: 26133

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/Kg	1.00	0.987	99	90 - 110	2006-04-27

Standard (CCV-1) QC Batch: 26133

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Chromium		mg/Kg	1.00	1.00	100	90 - 110	2006-04-27

Standard (CCV-1) QC Batch: 26133

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/Kg	1.00	1.00	100	90 - 110	2006-04-27

Standard (CCV-1) QC Batch: 26133

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/Kg	1.00	0.962	96	90 - 110	2006-04-27

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Lead		mg/L	1.00	0.998	100	90 - 110	2006-04-27

Standard (CCV-1)

QC Batch: 26134

Date Analyzed: 2006-04-27

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Thallium		mg/L	1.00	0.968	97	90 - 110	2006-04-27

Standard (ICV-1)

QC Batch: 26160

Date Analyzed: 2006-04-28

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury		mg/L	0.00500	0.00547	109	80 - 120	2006-04-28

Standard (CCV-1)

QC Batch: 26160

Date Analyzed: 2006-04-28

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury		mg/L	0.00500	0.00498	100	80 - 120	2006-04-28