Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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Report Date: October 9, 2008

Work Order: 8080828

Project Name: HELSTF GROUNDWATER
Project Number: 65

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
170067	HLSF-0085-HMW-014-0808	water	2008-08-06	14:15	2008-08-06
170168	HLSF-0085-HMW-055-0808	water	2008-08-08	13:16	2008-08-08
170170	HLSF-0085-HMW-010-0808	water	2008-08-07	10:20	2008-08-07
170455	HLSF-0085-HMW-054-0808	water	2008-08-11	10:08	2008-08-11
170457	HLSF-0085-D RW-008-0808	water	2008-08-11	12:55	2008-08-11
170843	HLSF-0085-HMW-043-0808	water	2008-08-13	09:45	2008-08-13
170986	HLSF-0085-DRW-017-0808	water	2008-08-14	10:30	2008-08-14
171111	HLSF-0085-HMW-062-0808	water	2008-08-18	14:00	2008-08-18
171300	HLSF-0085-HMW-008-0808	water	2008-08-19	10:48	2008-08-19
171303	HLSF-0085-HMW-034-0808	water	2008-08-19	12:46	2008-08-19
171731	HLSF-0085-HMW-033-0808	water	2008-08-21	09:42	2008-08-21
171733	HLSF-0085-HMW-059-0808	water	2008-08-21	11:45	2008-08-21
171735	HLSF-0085-DRW-016-0808	water	2008-08-22	10:25	2008-08-22
172137	HLSF-0085-DRW-114-0808	water	2008-08-27	13:35	2008-08-27
172139	HLSF-0085-DRW-014-0808	water	2008-08-27	13:35	2008-08-27

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172467	HLSF-0085-HMW-053-0808	water	2008-08-28	12:20	2008-08-28
172638	HLSF-0085-HMW-061-0908	water	2008-09-02	10:25	2008-09-02
172640	HLSF-0085-HMW-060-0908	water	2008-09-02	13:15	2008-09-02
172795	HLSF-0085-HMW-063-0908	water	2008-09-03	12:50	2008-09-03
172797	HLSF-0085-HMW-058-0908	water	2008-09-03	10:10	2008-09-05
172908	HLSF-0085-HMW-057-0908	water	2008-09-04	11:15	2008-09-04
172910	HLSF-0085-DRW-002-0908	water	2008-09-04	13:41	2008-09-04
173041	HLSF-0085-RB-001-0908	water	2008-09-08	15:30	2008-09-09
173043	HLSF-0085-HCF-003-0908	water	2008-09-08	12:00	2008-09-08
173045	HLSF-0085-HCF-103-0908	water	2008-09-08	12:00	2008-09-08

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 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project HELSTF GROUNDWATER, HELSTF GROUNDWATER and HELSTF GROUNDWATER were received by TraceAnalysis, Inc. on 2008-08-06, 2008-08-08, 2008-08-07, 2008-08-11, 2008-08-11, 2008-08-13, 2008-08-14, 2008-08-18, 2008-08-19, 2008-08-19, 2008-08-21, 2008-08-21, 2008-08-22, 2008-08-27, 2008-08-27, 2008-08-28, 2008-09-02, 2008-09-02, 2008-09-03, 2008-09-05, 2008-09-04, 2008-09-04, 2008-09-09, 2008-09-08 and 2008-09-08 and assigned to work orders 8080828, 8081109, 8081110, 8081318, 8081319, 8081533, 8081820, 8082006, 8082103, 8082105, 8082517, 8082518, 8082519, 8082824, 8082825, 8090219, 8090411, 8090412, 8090519, 8090520, 8090810, 8090811, 8091019, 8091020 and 8091021 respectively. Samples for work order 8080828 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8081109 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8081110 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8081318 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8081319 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8081533 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8081820 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8082006 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8082103 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8082105 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8082517 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8082518 were received intact without headspace and at a temperature of 4.0 deg C.Samples for work order 8082519 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8082824 were received intact without headspace and at a temperature of 4.0 dec C.Samples for work order 8082825 were received intact without headspace and at a temperature of 4.0 dec C.Samples for work order 8090219 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8090411 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8090412 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8090519 were received intact without headspace and at a temperature of 4.0 dec C.Samples for work order 8090520 were received intact without headspace and at a temperature of 4.0 deg.C.Samples for work order 8090810 were received intact without headspace and at a temperature of 4.0 dec C.Samples for work order 8090811 were received intact without headspace and at a temperature of 4.0 dec C.Samples for work order 8091019 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8091020 were received intact without headspace and at a temperature of 4.0 deg. C.Samples for work order 8091021 were received intact without headspace and at a temperature of 4.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Explosives (8330)	S 8330-C18

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work orders 8080828, 8081109, 8081110, 8081318, 8081319, 8081533, 8081820, 8082006, 8082103, 8082105, 8082517, 8082518,

8082519, 8082824, 8082825, 8090219, 8090411, 8090412, 8090519, 8090520, 8090810, 8090811, 8091019, 8091020 and 8091021 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 172638 - HLSF-0085-HMW-061-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53003	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45412	Sample Preparation:	2008-09-09	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX		<0.500	µg/L	1	0.500
RDX		<0.500	µg/L	1	0.500
1,3,5-Trinitrobenzene		<0.500	µg/L	1	0.500
1,3-Dinitrobenzene		<0.500	µg/L	1	0.500
Tetryl		<0.500	µg/L	1	0.500
Nitrobenzene		<0.500	µg/L	1	0.500
TNT		<0.500	µg/L	1	0.500
4-amino-DNT / 2-amino-DNT		<0.500	µg/L	1	0.500
2,6-DNT / 2,4-DNT		<0.500	µg/L	1	0.500
2-NT		<0.500	µg/L	1	0.500
3-NT		<0.500	µg/L	1	0.500
4-NT		<0.500	µg/L	1	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.09	µg/L	1	2.50	44	19.8 - 160

Sample: 172640 - HLSF-0085-HMW-060-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53003	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45412	Sample Preparation:	2008-09-09	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX		<0.500	µg/L	1	0.500
RDX		<0.500	µg/L	1	0.500
1,3,5-Trinitrobenzene		<0.500	µg/L	1	0.500
1,3-Dinitrobenzene		<0.500	µg/L	1	0.500
Tetryl		<0.500	µg/L	1	0.500
Nitrobenzene		<0.500	µg/L	1	0.500
TNT		<0.500	µg/L	1	0.500
4-amino-DNT / 2-amino-DNT		<0.500	µg/L	1	0.500
2,6-DNT / 2,4-DNT		<0.500	µg/L	1	0.500

continued . . .

sample 172640 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
2-NT		<0.500	μg/L	1	0.500
3-NT		<0.500	μg/L	1	0.500
4-NT		<0.500	μg/L	1	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		0.849	μg/L	1	2.50	34	19.8 - 160

Sample: 172795 - HLSF-0085-HMW-063-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53003	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45412	Sample Preparation:	2008-09-09	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX		<0.500	μg/L	1	0.500
RDX		<0.500	μg/L	1	0.500
1,3,5-Trinitrobenzene		<0.500	μg/L	1	0.500
1,3-Dinitrobenzene		<0.500	μg/L	1	0.500
Tetryl		<0.500	μg/L	1	0.500
Nitrobenzene		<0.500	μg/L	1	0.500
TNT		<0.500	μg/L	1	0.500
4-amino-DNT / 2-amino-DNT		<0.500	μg/L	1	0.500
2,6-DNT / 2,4-DNT		<0.500	μg/L	1	0.500
2-NT		<0.500	μg/L	1	0.500
3-NT		<0.500	μg/L	1	0.500
4-NT		<0.500	μg/L	1	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		0.636	μg/L	1	2.50	25	19.8 - 160

Sample: 172797 - HLSF-0085-HMW-058-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53003	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45412	Sample Preparation:	2008-09-09	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX		<0.500	μg/L	1	0.500
RDX		<0.500	μg/L	1	0.500
1,3,5-Trinitrobenzene		<0.500	μg/L	1	0.500
1,3-Dinitrobenzene		<0.500	μg/L	1	0.500
Tetryl		**1.40**	μg/L	1	0.500
Nitrobenzene		<0.500	μg/L	1	0.500
TNT		<0.500	μg/L	1	0.500
4-amino-DNT / 2-amino-DNT		<0.500	μg/L	1	0.500
2,6-DNT / 2,4-DNT		<0.500	μg/L	1	0.500
2-NT		<0.500	μg/L	1	0.500
3-NT		<0.500	μg/L	1	0.500
4-NT		<0.500	μg/L	1	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.60	μg/L	1	2.50	64	19.8 - 160

Sample: 172908 - HLSF-0085-HMW-057-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53004	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45413	Sample Preparation:	2008-09-11	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX		<0.500	μg/L	1	0.500
RDX		<0.500	μg/L	1	0.500
1,3,5-Trinitrobenzene		<0.500	μg/L	1	0.500
1,3-Dinitrobenzene		<0.500	μg/L	1	0.500
Tetryl		<0.500	μg/L	1	0.500
Nitrobenzene		<0.500	μg/L	1	0.500
TNT		<0.500	μg/L	1	0.500
4-amino-DNT / 2-amino-DNT		<0.500	μg/L	1	0.500
2,6-DNT / 2,4-DNT		<0.500	μg/L	1	0.500
2-NT		<0.500	μg/L	1	0.500
3-NT		<0.500	μg/L	1	0.500
4-NT		<0.500	μg/L	1	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		0.573	μg/L	1	2.50	23	19.8 - 160

Sample: 172910 - HLSF-0085-DRW-002-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53004	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45413	Sample Preparation:	2008-09-11	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX	[1]	<1.79	μg/L	3.58	0.500
RDX		<1.79	μg/L	3.58	0.500
1,3,5-Trinitrobenzene		<1.79	μg/L	3.58	0.500
1,3-Dinitrobenzene		<1.79	μg/L	3.58	0.500
Tetryl		<1.79	μg/L	3.58	0.500
Nitrobenzene		<1.79	μg/L	3.58	0.500
TNT		<1.79	μg/L	3.58	0.500
4-amino-DNT / 2-amino-DNT		<1.79	μg/L	3.58	0.500
2,6-DNT / 2,4-DNT		<1.79	μg/L	3.58	0.500
2-NT		<1.79	μg/L	3.58	0.500
3-NT		<1.79	μg/L	3.58	0.500
4-NT		<1.79	μg/L	3.58	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		3.81	μg/L	3.58	2.50	152	19.8 - 160

Sample: 173041 - HLSF-0085-RB-001-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53004	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45413	Sample Preparation:	2008-09-11	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX		<0.500	μg/L	1	0.500
RDX		<0.500	μg/L	1	0.500
1,3,5-Trinitrobenzene		<0.500	μg/L	1	0.500
1,3-Dinitrobenzene		<0.500	μg/L	1	0.500
Tetryl		<0.500	μg/L	1	0.500
Nitrobenzene		**1.15**	μg/L	1	0.500
TNT		<0.500	μg/L	1	0.500
4-amino-DNT / 2-amino-DNT		<0.500	μg/L	1	0.500
2,6-DNT / 2,4-DNT		<0.500	μg/L	1	0.500
2-NT		<0.500	μg/L	1	0.500
3-NT		<0.500	μg/L	1	0.500
4-NT		<0.500	μg/L	1	0.500

[1] Sample ran at a dilution due to matrix difficulties.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		0.545	μg/L	1	2.50	22	19.8 - 160

Sample: 173043 - HLSF-0085-HCF-003-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53004	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45413	Sample Preparation:	2008-09-11	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX	[2]	<33.4	μg/L	66.7	0.500
RDX		<33.4	μg/L	66.7	0.500
1,3,5-Trinitrobenzene		<33.4	μg/L	66.7	0.500
1,3-Dinitrobenzene		<33.4	μg/L	66.7	0.500
Tetryl		<33.4	μg/L	66.7	0.500
Nitrobenzene		<33.4	μg/L	66.7	0.500
TNT		<33.4	μg/L	66.7	0.500
4-amino-DNT / 2-amino-DNT		<33.4	μg/L	66.7	0.500
2,6-DNT / 2,4-DNT		<33.4	μg/L	66.7	0.500
2-NT		<33.4	μg/L	66.7	0.500
3-NT		<33.4	μg/L	66.7	0.500
4-NT		<33.4	μg/L	66.7	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.39	μg/L	66.7	2.50	56	19.8 - 160

Sample: 173045 - HLSF-0085-HCF-103-0908

Laboratory:	Lubbock				
Analysis:	Explosives (8330)	Analytical Method:	S 8330-C18	Prep Method:	S 3535A
QC Batch:	53004	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45413	Sample Preparation:	2008-09-11	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
HMX	[3]	<33.4	μg/L	66.7	0.500
RDX		<33.4	μg/L	66.7	0.500
1,3,5-Trinitrobenzene		<33.4	μg/L	66.7	0.500
1,3-Dinitrobenzene		<33.4	μg/L	66.7	0.500
Tetryl		<33.4	μg/L	66.7	0.500

continued ...

[2]Sample ran at a dilution due to matrix difficulties.
[3]Sample ran at a dilution due to matrix difficulties.

sample 173045 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrobenzene		<33.4	μg/L	66.7	0.500
TNT		<33.4	μg/L	66.7	0.500
4-amino-DNT / 2-amino-DNT		<33.4	μg/L	66.7	0.500
2,6-DNT / 2,4-DNT		<33.4	μg/L	66.7	0.500
2-NT		<33.4	μg/L	66.7	0.500
3-NT		<33.4	μg/L	66.7	0.500
4-NT		<33.4	μg/L	66.7	0.500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		3.20	μg/L	66.7	2.50	128	19.8 - 160

Method Blank (1) QC Batch: 53003

QC Batch: 53003 Date Analyzed: 2008-10-02 Analyzed By: DS
Prep Batch: 45412 QC Preparation: 2008-09-09 Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
HMX		<0.359	μg/L	0.5
RDX		<0.441	μg/L	0.5
1,3,5-Trinitrobenzene		<0.304	μg/L	0.5
1,3-Dinitrobenzene		<0.356	μg/L	0.5
Tetryl		<0.390	μg/L	0.5
Nitrobenzene		<0.392	μg/L	0.5
TNT		<0.354	μg/L	0.5
4-amino-DNT / 2-amino-DNT		<0.327	μg/L	0.5
2,6-DNT / 2,4-DNT		<0.289	μg/L	0.5
2-NT		<0.367	μg/L	0.5
3-NT		<0.259	μg/L	0.5
4-NT		<0.261	μg/L	0.5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		1.73	μg/L	1	2.50	69	10 - 165

Method Blank (1) QC Batch: 53004

QC Batch: 53004 Date Analyzed: 2008-10-02 Analyzed By: DS
Prep Batch: 45413 QC Preparation: 2008-09-11 Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
HMX		<0.359	μg/L	0.5
RDX		<0.441	μg/L	0.5
1,3,5-Trinitrobenzene		<0.304	μg/L	0.5
1,3-Dinitrobenzene		<0.356	μg/L	0.5
Tetryl		<0.390	μg/L	0.5
Nitrobenzene		<0.392	μg/L	0.5
TNT		<0.354	μg/L	0.5
4-amino-DNT / 2-amino-DNT		<0.327	μg/L	0.5
2,6-DNT / 2,4-DNT		<0.289	μg/L	0.5
2-NT		<0.367	μg/L	0.5
3-NT		<0.259	μg/L	0.5
4-NT		<0.261	μg/L	0.5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
1,2-Dinitrobenzene		0.830	μg/L	1	2.50	33	10 - 165

Laboratory Control Spike (LCS-1)

QC Batch: 53003 Date Analyzed: 2008-10-02 Analyzed By: DS
Prep Batch: 45412 QC Preparation: 2008-09-09 Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
HMX	2.16	μg/L	1	2.50	<0.359	86	63.5 - 125
RDX	2.26	μg/L	1	2.50	<0.441	90	74.5 - 124
1,3,5-Trinitrobenzene	2.04	μg/L	1	2.50	<0.304	82	54.1 - 131
1,3-Dinitrobenzene	2.22	μg/L	1	2.50	<0.356	89	72 - 112
Tetryl	1.38	μg/L	1	2.50	<0.390	55	35.9 - 149
Nitrobenzene	2.26	μg/L	1	2.50	<0.392	90	72.5 - 126
TNT	2.29	μg/L	1	2.50	<0.354	92	40.7 - 129
4-amino-DNT / 2-amino-DNT	2.26	μg/L	1	2.50	<0.327	90	63 - 120
2,6-DNT / 2,4-DNT	2.24	μg/L	1	2.50	<0.289	90	58.2 - 137
2-NT	2.13	μg/L	1	2.50	<0.367	85	49.8 - 139
3-NT	1.97	μg/L	1	2.50	<0.259	79	66.2 - 129
4-NT	2.18	μg/L	1	2.50	<0.261	87	56.3 - 141

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
HMX	2.26	μg/L	1	2.50	<0.359	90	63.5 - 125	4	20
RDX	2.36	μg/L	1	2.50	<0.441	94	74.5 - 124	4	20
1,3,5-Trinitrobenzene	2.17	μg/L	1	2.50	<0.304	87	54.1 - 131	6	20

continued . . .

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,3-Dinitrobenzene	2.28	μg/L	1	2.50	<0.356	91	72 - 112	3	20
Tetryl	1.42	μg/L	1	2.50	<0.390	57	35.9 - 149	3	20
Nitrobenzene	2.23	μg/L	1	2.50	<0.392	89	72.5 - 126	1	20
TNT	2.24	μg/L	1	2.50	<0.354	90	40.7 - 129	2	20
4-amino-DNT / 2-amino-DNT	2.23	μg/L	1	2.50	<0.327	89	63 - 120	1	20
2,6-DNT / 2,4-DNT	2.22	μg/L	1	2.50	<0.289	89	58.2 - 137	1	20
2-NT	2.18	μg/L	1	2.50	<0.367	87	49.8 - 139	2	20
3-NT	1.98	μg/L	1	2.50	<0.259	79	66.2 - 129	0	20
4-NT	2.13	μg/L	1	2.50	<0.261	85	56.3 - 141	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
1,2-Dinitrobenzene	2.50	2.45	μg/L	1	2.50	100	98	53 - 134

Laboratory Control Spike (LCS-1)

QC Batch: 53004 Date Analyzed: 2008-10-02 Analyzed By: DS
Prep Batch: 45413 QC Preparation: 2008-09-11 Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
HMX	2.67	μg/L	1	2.50	<0.359	107	63.5 - 125
RDX	2.27	μg/L	1	2.50	<0.441	91	74.5 - 124
1,3,5-Trinitrobenzene	2.36	μg/L	1	2.50	<0.304	94	54.1 - 131
1,3-Dinitrobenzene	2.52	μg/L	1	2.50	<0.356	101	72 - 112
Tetryl	1.57	μg/L	1	2.50	<0.390	63	35.9 - 149
Nitrobenzene	2.49	μg/L	1	2.50	<0.392	100	72.5 - 126
TNT	2.42	μg/L	1	2.50	<0.354	97	40.7 - 129
4-amino-DNT / 2-amino-DNT	2.49	μg/L	1	2.50	<0.327	100	63 - 120
2,6-DNT / 2,4-DNT	2.49	μg/L	1	2.50	<0.289	100	58.2 - 137
2-NT	2.46	μg/L	1	2.50	<0.367	98	49.8 - 139
3-NT	2.32	μg/L	1	2.50	<0.259	93	66.2 - 129
4-NT	2.50	μg/L	1	2.50	<0.261	100	56.3 - 141

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
HMX	2.42	μg/L	1	2.50	<0.359	97	63.5 - 125	10	20
RDX	2.64	μg/L	1	2.50	<0.441	106	74.5 - 124	15	20
1,3,5-Trinitrobenzene	2.49	μg/L	1	2.50	<0.304	100	54.1 - 131	5	20
1,3-Dinitrobenzene	2.62	μg/L	1	2.50	<0.356	105	72 - 112	4	20

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Tetryl	1.60	μg/L	1	2.50	<0.390	64	35.9 - 149	2	20
Nitrobenzene	2.53	μg/L	1	2.50	<0.392	101	72.5 - 126	2	20
TNT	2.42	μg/L	1	2.50	<0.354	97	40.7 - 129	0	20
4-amino-DNT / 2-amino-DNT	2.37	μg/L	1	2.50	<0.327	95	63 - 120	5	20
2,6-DNT / 2,4-DNT	2.46	μg/L	1	2.50	<0.289	98	58.2 - 137	1	20
2-NT	2.54	μg/L	1	2.50	<0.367	102	49.8 - 139	3	20
3-NT	2.00	μg/L	1	2.50	<0.259	80	66.2 - 129	15	20
4-NT	2.41	μg/L	1	2.50	<0.261	96	56.3 - 141	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
1,2-Dinitrobenzene	2.59	2.45	μg/L	1	2.50	104	98	53 - 134

Standard (ICV-1)

QC Batch: 53003 Date Analyzed: 2008-10-02 Analyzed By: DS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		μg/L	500	499	100	85 - 115	2008-10-02
RDX		μg/L	500	524	105	85 - 115	2008-10-02
1,3,5-Trinitrobenzene		μg/L	500	478	96	85 - 115	2008-10-02
1,3-Dinitrobenzene		μg/L	500	516	103	85 - 115	2008-10-02
Tetryl	[4]	μg/L	500	327	65	85 - 115	2008-10-02
Nitrobenzene		μg/L	500	508	102	85 - 115	2008-10-02
TNT		μg/L	500	512	102	85 - 115	2008-10-02
4-amino-DNT / 2-amino-DNT		μg/L	500	508	102	85 - 115	2008-10-02
2,6-DNT / 2,4-DNT		μg/L	500	501	100	85 - 115	2008-10-02
2-NT		μg/L	500	501	100	85 - 115	2008-10-02
3-NT		μg/L	500	470	94	85 - 115	2008-10-02
4-NT		μg/L	500	504	101	85 - 115	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		543	μg/L	1	500	109	85 - 115

Standard (CCV-1)

QC Batch: 53003 Date Analyzed: 2008-10-02 Analyzed By: DS

[4] Tetryl outside of control limits on CCV(ICV). CCV(ICV) component average is 98.4% which is within acceptable range. This is acceptable by Method 8000.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	492	98	85 - 115	2008-10-02
RDX		µg/L	500	495	99	85 - 115	2008-10-02
1,3,5-Trinitrobenzene		µg/L	500	486	97	85 - 115	2008-10-02
1,3-Dinitrobenzene		µg/L	500	511	102	85 - 115	2008-10-02
Tetryl	[5]	µg/L	500	277	55	85 - 115	2008-10-02
Nitrobenzene		µg/L	500	499	100	85 - 115	2008-10-02
TNT		µg/L	500	545	109	85 - 115	2008-10-02
4-amino-DNT / 2-amino-DNT		µg/L	500	549	110	85 - 115	2008-10-02
2,6-DNT / 2,4-DNT		µg/L	500	530	106	85 - 115	2008-10-02
2-NT		µg/L	500	451	90	85 - 115	2008-10-02
3-NT		µg/L	500	474	95	85 - 115	2008-10-02
4-NT		µg/L	500	458	92	85 - 115	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		514	µg/L	1	500	103	85 - 115

Standard (ICV-1)

QC Batch: 53004 Date Analyzed: 2008-10-02 Analyzed By: DS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	499	100	85 - 115	2008-10-02
RDX		µg/L	500	524	105	85 - 115	2008-10-02
1,3,5-Trinitrobenzene		µg/L	500	478	96	85 - 115	2008-10-02
1,3-Dinitrobenzene		µg/L	500	516	103	85 - 115	2008-10-02
Tetryl	[6]	µg/L	500	327	65	85 - 115	2008-10-02
Nitrobenzene		µg/L	500	508	102	85 - 115	2008-10-02
TNT		µg/L	500	512	102	85 - 115	2008-10-02
4-amino-DNT / 2-amino-DNT		µg/L	500	508	102	85 - 115	2008-10-02
2,6-DNT / 2,4-DNT		µg/L	500	501	100	85 - 115	2008-10-02
2-NT		µg/L	500	501	100	85 - 115	2008-10-02
3-NT		µg/L	500	470	94	85 - 115	2008-10-02
4-NT		µg/L	500	504	101	85 - 115	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		543	µg/L	1	500	109	85 - 115

[5] Tetryl outside of control limits on CCV(ICV). CCV(ICV) component average is 96.6% which is within acceptable range. This is acceptable by Method 8000.

[6] Tetryl outside of control limits on CCV(ICV). CCV(ICV) component average is 98.4% which is within acceptable range. This is acceptable by Method 8000.

Standard (CCV-1)

QC Batch: 53004 Date Analyzed: 2008-10-02 Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
HMX		µg/L	500	492	98	85 - 115	2008-10-02
RDX		µg/L	500	495	99	85 - 115	2008-10-02
1,3,5-Trinitrobenzene		µg/L	500	486	97	85 - 115	2008-10-02
1,3-Dinitrobenzene		µg/L	500	511	102	85 - 115	2008-10-02
Tetryl	[7]	µg/L	500	277	55	85 - 115	2008-10-02
Nitrobenzene		µg/L	500	499	100	85 - 115	2008-10-02
TNT		µg/L	500	545	109	85 - 115	2008-10-02
4-amino-DNT / 2-amino-DNT		µg/L	500	549	110	85 - 115	2008-10-02
2,6-DNT / 2,4-DNT		µg/L	500	530	106	85 - 115	2008-10-02
2-NT		µg/L	500	451	90	85 - 115	2008-10-02
3-NT		µg/L	500	474	95	85 - 115	2008-10-02
4-NT		µg/L	500	458	92	85 - 115	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
1,2-Dinitrobenzene		514	µg/L	1	500	103	85 - 115

[7] Tetryl outside of control limits on CCV(ICV). CCV(ICV) component average is 96.6% which is within acceptable range. This is acceptable by Method 8000.