

SPARTON

SPARTON TECHNOLOGY



February 14, 1991

Technical Section (6H-CD)
RCRA Enforcement Branch
Hazardous Waste Management Division
U. S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202-2733

Attention: Mr. Guy L. Tidmore, Chief

Reference: Monthly Report
Sparton Technology, Inc.

Gentlemen:

This is the monthly progress report for Sparton Technology, Inc.'s Coors Road Facility, located in Albuquerque, New Mexico as required in Section IV.C of the Consent Order. This report summarizes activities during the month of January 1991.

1. The bi-weekly water level measurements taken to date, as required in Section IV.A.1 of the Consent Order, are included in Attachment 1.
2. Air stripper removal efficiencies continue to average over 99 percent for the measured indicator parameters. During the month, 39,400 gallons of recovered groundwater were treated, bringing the total volume treated to date to 1,460,900 gallons. Air stripper performance data is included in Attachment 2.
3. The analytical results of the State Monitoring Well Program are included in Attachment 3.

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February 14, 1991
Technical Section (6H-CD)
RCRA Enforcement Branch
Hazardous Waste Management Division
U. S. Environmental Protection Agency
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This concludes our progress report for the month of January. If you have any questions, please contact the undersigned.

Very truly yours,

SPARTON TECHNOLOGY, INC.

Jeffrey S. Haag, for

Richard D. Mico
Vice President/General Manager

Attachments: (as stated)

cc: NMEID
J. Appel
J. DeWitt
C. Glore
J. Haag
G. Richardson
V. Samala

002651

ATTACHMENT 1
Bi-weekly Water Level Measurements

002652

SPARTON TECHNOLOGY, INC.
COORS ROAD FACILITY
BIWEEKLY WATER LEVEL MEASUREMENTS

[-----Water Level Elevation - Feet Above MSL-----]

DATE	MW-7	MW-9	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-21	MW-22	MW-33	MW-34	MW-35	MW-36	MW-37
02/23/89	4978.48	4975.57	4975.23	4976.51	4974.24	4976.45	4980.07	4980.08	4979.76	4979.23	4975.07	-----	-----	-----	-----
03/08/89	4978.40	4975.36	4975.15	4976.35	4974.15	4976.36	4979.87	4980.08	4979.64	4979.14	4974.90	-----	-----	-----	-----
03/21/89	4978.81	4975.65	4975.40	4976.76	4974.07	4976.36	4979.82	4980.08	4979.68	4979.35	4975.15	-----	-----	-----	-----
04/06/89	4979.15	4975.11	4975.65	4977.18	4974.24	4976.45	4980.10	4980.16	4979.68	4979.64	4975.40	-----	-----	-----	-----
04/21/89	4979.31	4975.95	4975.73	4977.18	4974.32	4976.45	4980.07	4980.16	4979.84	4979.77	4975.40	-----	-----	-----	-----
05/03/89	4979.40	4976.03	4975.82	4977.18	4974.49	4976.53	4980.07	4980.24	4979.84	4979.81	4975.48	-----	-----	-----	-----
05/17/89	4979.65	4976.15	4975.90	4977.26	4974.32	4976.53	4980.10	4980.33	4979.93	4979.98	4975.57	-----	-----	-----	-----
06/01/89	4979.73	4976.24	4975.90	4977.43	4974.49	4976.54	4980.07	4980.41	4980.01	4979.98	4975.48	-----	-----	-----	-----
06/13/89	4979.90	4976.40	4976.07	4977.64	4974.55	4976.70	4980.32	4980.49	4980.01	4980.06	4975.65	-----	-----	-----	-----
06/30/89	4980.06	4976.49	4976.15	4977.60	4974.53	4976.53	4980.16	4980.49	4979.93	4980.19	4975.57	-----	-----	-----	-----
07/12/89	4980.40	4976.82	4976.40	4978.01	4974.82	4976.78	4980.57	4980.74	4980.26	4980.48	4975.78	-----	-----	-----	-----
07/28/89	4980.40	4976.20	4976.40	4977.93	4974.82	4976.78	4980.82	4980.87	4980.18	4980.56	4975.82	-----	-----	-----	-----
08/10/89	4980.06	4976.40	4976.07	4977.60	4974.53	4976.74	4980.68	4980.83	4980.26	4980.39	4975.73	-----	-----	-----	-----
08/24/89	4980.48	4976.90	4976.65	4978.18	4974.90	4976.99	4980.74	4980.91	4980.30	4980.30	4976.04	-----	-----	-----	-----
09/07/89	4980.65	4977.07	4976.73	4978.43	4975.07	4977.11	4980.82	4981.08	4980.30	4980.89	4976.19	-----	-----	-----	-----
09/21/89	4980.90	4977.24	4976.90	4978.46	4975.16	4977.16	4980.91	4981.16	4980.47	4981.06	4976.23	-----	-----	-----	-----
10/05/89	4980.90	4977.24	4976.94	4978.47	4975.15	4977.03	4981.07	4981.24	4980.49	4981.06	4976.32	-----	-----	-----	-----
10/20/89	4980.65	4976.82	4976.65	4978.01	4974.90	4977.07	4980.91	4981.08	4980.34	4980.81	4975.69	-----	-----	-----	-----
11/03/89	4980.40	4977.02	4976.40	4978.01	4974.90	4977.27	4980.92	4980.99	4980.58	4980.59	4975.89	-----	-----	-----	-----
11/17/89	4980.15	4977.02	4976.28	4977.60	4974.82	4977.52	4980.92	4980.87	4980.58	4980.38	4976.98	4976.98	4974.91	4984.83	4972.45
12/01/89	4979.81	4976.56	4975.90	4977.26	4974.40	4977.10	4980.83	4980.66	4980.50	4980.01	4975.81	4976.60	4974.65	4973.50	4972.35
12/15/89	4979.56	4976.27	4975.82	4977.10	4974.15	4977.10	4980.75	4980.49	4980.46	4979.88	4975.56	4976.28	4974.46	4973.35	4972.30
12/28/89	4979.31	4976.10	4975.61	4976.85	4974.15	4976.89	4980.42	4980.41	4980.33	4979.72	4975.48	4976.03	4974.21	4973.29	4972.23

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SPARTON TECHNOLOGY, INC.
COORS ROAD FACILITY
BIWEEKLY WATER LEVEL MEASUREMENTS

[-----Water Level Elevation - Feet Above MSL-----]

DATE	MW-7	MW-9	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-21	MW-22	MW-33	MW-34	MW-35	MW-36	MW-37
01/09/90	4979.15	4975.85	4975.44	4976.68	4973.99	4976.85	4980.33	4980.33	4980.29	4979.55	4975.31	4975.89	4974.19	4973.15	4972.12
01/24/90	4978.98	4975.85	4975.48	4976.43	4973.90	4976.68	4980.25	4980.16	4980.08	4979.55	4975.14	4975.84	4974.04	4973.01	4972.10
02/07/90	4978.81	4975.77	4975.40	4976.35	4973.82	4976.52	4980.00	4980.12	4980.08	4979.38	4975.06	4975.60	4974.00	4972.92	4971.28
02/21/90	4978.81	4975.52	4975.32	4976.35	4973.65	4976.35	4979.92	4980.08	4980.00	4979.13	4975.06	4975.52	4973.88	4972.94	4971.99
03/07/90	4978.81	4975.43	4975.07	4976.26	4973.65	4976.18	4980.00	4980.91	4979.75	4979.13	4975.06	4975.90	4973.97	4972.92	4972.16
03/21/90	4978.81	4975.43	4975.07	4976.26	4973.65	4975.93	4979.92	4980.08	4979.75	4979.13	4975.06	4975.67	4973.97	4973.07	4972.13
04/05/90	4979.23	4976.10	4975.65	4976.76	4974.07	4976.27	4980.00	4980.08	4979.75	4979.55	4975.48	4975.77	4973.00	4973.20	4972.26
04/18/90	4979.48	4976.27	4975.82	4977.10	4974.07	4976.27	4980.00	4980.16	4979.83	4979.55	4975.48	4976.27	4973.75	4972.55	4972.28
05/02/90	4979.65	4976.27	4975.90	4977.18	4974.15	4976.60	4980.08	4980.41	4980.00	4979.88	4975.81	4976.74	4974.60	4973.40	4972.41
05/16/90	4979.65	4976.27	4975.90	4977.18	4974.15	4976.35	4980.00	4980.24	4980.08	4979.63	4975.48	4976.02	4974.52	4973.32	4972.35
05/30/90	4979.65	4976.27	4975.90	4977.18	4974.07	4976.35	4980.00	4980.41	4980.08	4979.88	4975.56	4976.76	4974.60	4973.36	4972.31
06/13/90	4979.90	4976.68	4976.53	4977.51	4974.40	4976.60	4980.42	4980.49	4975.57	4979.97	4975.89	4976.98	4974.69	4973.36	4972.29
06/27/90	4980.06	4976.68	4976.32	4977.60	4974.49	4976.68	4980.42	4980.49	4980.08	4980.13	4975.89	4977.20	4973.50	4973.50	4972.35
07/10/90	4980.48	4976.77	4976.32	4977.93	4974.49	4976.77	4980.50	4980.49	4980.17	4980.38	4975.89	4977.40	4975.03	4973.61	4972.39
07/24/90	4980.15	4976.68	4976.23	4977.51	4974.32	4976.68	4980.67	4980.49	4980.42	4980.05	4975.81	4977.00	4974.86	4973.57	4972.37
08/08/90	4980.48	4977.10	4976.73	4978.01	4974.82	4977.02	4980.67	4980.58	4980.50	4980.47	4975.89	4977.82	4975.11	4973.68	4972.46
08/24/90	4980.90	4977.10	4976.73	4978.35	4974.82	4977.10	4981.17	4980.99	4980.75	4980.80	4975.89	4977.47	4975.19	4973.75	4972.06
09/06/90	4980.90	4976.85	4976.32	4977.60	4974.49	4977.10	4981.00	4980.91	4980.83	4980.47	4975.89	4977.18	4974.99	4973.60	4972.40
09/19/90	4980.48	4976.77	4976.32	4977.60	4974.49	4977.10	4981.17	4980.91	4980.83	4980.47	4975.89	4977.32	4975.30	4973.67	4972.43
10/05/90	4980.98	4977.35	4976.82	4978.43	4975.15	4977.18	4981.25	4981.33	4980.92	4980.97	4976.23	4977.74	4975.35	4973.96	4972.64
10/17/90	4980.90	4977.35	4976.73	4978.35	4974.90	4977.27	4981.25	4981.24	4980.92	4980.97	4976.31	4977.57	4975.35	4973.85	4972.52
10/31/90	4980.98	4977.52	4977.15	4978.43	4975.24	4977.43	4981.25	4981.33	4980.92	4981.13	4976.39	4978.17	4975.52	4974.03	4972.68
11/13/90	4980.98	4977.52	4976.90	4978.43	4975.15	4977.52	4981.25	4981.33	4980.92	4981.13	4976.31	4977.91	4975.52	4974.05	4972.74
11/28/90	4980.48	4977.10	4976.65	4978.01	4974.90	4977.43	4981.25	4981.33	4980.83	4980.80	4975.98	4977.35	4975.21	4973.79	4972.51
12/12/90	4980.15	4976.77	4976.32	4977.60	4974.49	4977.18	4980.83	4980.99	4980.67	4980.47	4975.98	4976.96	4974.97	4973.67	4972.48
12/27/90	4979.98	4976.60	4975.98	4977.18	4974.32	4977.14	4980.83	4980.91	4980.58	4980.22	4975.81	4976.54	4974.68	4973.42	4972.31

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SPARTON TECHNOLOGY, INC.
COORS ROAD FACILITY
BIWEEKLY WATER LEVEL MEASUREMENTS

[-----Water Level Elevation - Feet Above MSL-----]

DATE	MW-7	MW-9	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-21	MW-22	MW-33	MW-34	MW-35	MW-36	MW-37
01/09/91	4980.15	4976.77	4976.32	4977.60	4974.49	4977.18	4980.83	4980.99	4980.67	4980.47	4975.98	4976.96	4974.97	4973.67	4972.48
01/23/91	4979.98	4976.60	4975.98	4977.18	4974.32	4977.14	4980.83	4980.91	4980.58	4980.22	4975.81	4976.54	4974.68	4973.42	4972.31

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ATTACHMENT 2
Air Stripper Performance Data

002656

SPARTON TECHNOLOGY, INC.
COORS ROAD FACILITY
ALBUQUERQUE, NEW MEXICO

GROUNDWATER RECOVERY SYSTEM
VOLUME TREATED
MONTH OF JANUARY 1991

DATE	BEGIN READING	END READING	GALLONS	CUMULATIVE GALLONS
				1,421,500
01/02/91	616,400	616,400	0	1,421,500
01/04/91	616,400	617,200	800	1,422,300
01/07/91	617,200	618,600	1400	1,423,700
01/08/91	618,600	620,400	1800	1,425,500
01/09/91	620,400	622,200	1800	1,427,300
01/10/91	622,200	623,900	1700	1,429,000
01/11/91	623,900	628,800	4900	1,433,900
01/14/91	628,800	630,600	1800	1,435,700
01/15/91	630,600	632,300	1700	1,437,400
01/16/91	632,300	634,100	1800	1,439,200
01/17/91	634,100	635,800	1700	1,440,900
01/18/91	635,800	640,900	5100	1,446,000
01/21/91	640,900	642,500	1600	1,447,600
01/22/91	642,500	644,100	1600	1,449,200
01/23/91	644,100	644,600	500	1,449,700
01/24/91	644,600	649,300	4700	1,454,400
01/28/91	649,300	650,900	1600	1,456,000
01/29/91	650,900	652,500	1600	1,457,600
01/30/91	652,500	654,000	1500	1,459,100
01/31/91	654,000	655,800	1800	1,460,900
			<hr/>	
		Total Gallons =	39,400	

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AIR STRIPPER PERFORMANCE

Sparton Technology, Inc.
Albuquerque, New Mexico

(all concentrations in micrograms per liter (ppb))

DATE SAMPLED	1,1-Dichloroethylene [-----]			Methylene Chloride [-----]			1,1,1-Trichloroethane [-----]			Trichloroethylene [-----]		
	INFLUENT	EFFLUENT	PERCENT REDUCTION	INFLUENT	EFFLUENT	PERCENT REDUCTION	INFLUENT	EFFLUENT	PERCENT REDUCTION	INFLUENT	EFFLUENT	PERCENT REDUCTION
12/12/88	21	0.32	98.5	293	5.4	98.2	95	1.9	98.0	328	6.3	98.1
12/14/88	170	1.1	99.4	2230	26.5	98.8	1090	9.7	99.1	2490	22.4	99.1
12/19/88	87	0.4	99.5	1320	13.6	99.0	862	6.0	99.3	2200	14.8	99.3
12/27/88	89	0.5	99.4	1250	2.4	99.8	648	3.3	99.5	1300	7.2	99.4
01/06/89	64	0.2	99.7	581	3.3	99.4	340	1.7	99.5	712	4.1	99.4
01/23/89	82	0.2	99.8	545	7.4	98.6	570	2.6	99.5	1220	7.5	99.4
02/02/89	83	0.3	99.6	514	0.1	100.0	389	2.2	99.4	1550	8.6	99.4
03/06/89	107	1.5	98.6	38	0.4	98.9	708	11.0	98.4	1300	21.0	98.4
04/03/89	79	1	98.7	84	1	98.9	371	0	99.7	880	1.5	99.8
05/01/89	94	1	98.9	14	1	92.9	243	0	99.6	632	1	99.8
06/05/89	28	1	96.4	148	1	99.3	198	0	99.5	685	1	99.9
07/05/89	20	0.1	99.5	2.4	0.1	95.8	154	0.1	99.9	452	0.14	100.0
08/07/89	27	0.1	99.6	2.4	0.1	95.8	152	0.18	99.9	477	0.19	100.0
09/05/89	53	0.1	99.8	8.5	0.1	98.8	310	0.1	100.0	785	0.2	100.0
10/02/89	62	0.1	99.8	2.6	0.1	96.2	286	0.1	100.0	905	0.1	100.0
11/06/89	20.9	0.1	99.5	140	0.26	99.8	87.5	0.1	99.9	392	0.25	99.9
12/04/89	23.0	0.1	99.6	131	0.2	99.8	71	0.1	99.9	378	0.4	99.9
01/08/90	19.7	0.1	99.5	140	0.41	99.7	90.3	0.18	99.8	359	0.91	99.7
02/05/90	34.0	0.1	99.7	44	0.22	99.5	250	0.47	99.8	670	1.8	99.7
03/05/90	45.0	0.1	99.8	35	0.2	99.4	240	0.19	99.9	780	0.91	99.9
04/02/90	64.0	0.1	99.8	10	0.4	96.0	310	0.1	100.0	1300	0.32	100.0
05/07/90	43.0	0.1	99.8	8.7	0.1	98.9	190	0.1	99.9	720	0.18	100.0
06/04/90	70.0	0.1	99.9	1	0.1	90.0	180	0.1	99.9	820	0.1	100.0
07/02/90	30.0	0.1	99.7	1	1.0	0.0	140	0.1	99.9	625	0.1	100.0
08/06/90	40.0	0.1	99.8	21	0.1	99.5	140	0.1	99.9	550	0.59	99.9
09/10/90	44.0	0.1	99.8	5.9	0.1	98.3	150	1.0	99.9	880	1.0	99.9
10/01/90	93.0	1.0	98.9	6.7	1.0	85.1	290	1.0	99.7	1200	1.0	99.9
11/05/90	64.0	1.0	98.4	10	1.0	90.0	200	1.0	99.5	1200	1.0	99.9
12/19/90	26.0	<1.0	>96.2	<1.0	<1.0	----	120	<1.0	>99.2	460	<1.0	>99.8
01/08/91	68.0	<1.0	>98.5	22.0	<1.0	>95.5	490	1.0	99.8	1620	3.5	99.8
AVERAGES	58.4	<0.4	>99.2	<253.7	<2.32	>99.1	312.2	<1.6	>99.5	926.3	<3.6	>99.6

002658

ATTACHMENT 3
State Monitoring Well Results,
30th Quarter

002659



ASSAIGAI ANALYTICAL LABORATORIES

TO: Metric Corporation
8429 Washington Place, NE #A
Albuquerque, NM 87113-1672
ATTN: Gary Richardson

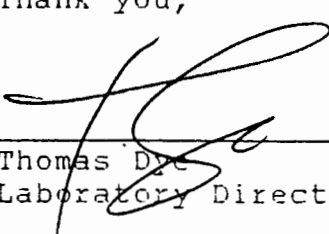
DATE: 21 January 1991
WORK ORDER NO: 6390

SAMPLE ID: Inflow and Outflow, 01-08-91, Air Stripper
RECEIVED: 08 January 1991
EPA METHOD NO: 601

ANALYTE	ANALYTICAL RESULTS		MATRIX
	Inflow	Outflow	DETECTION LIMIT
1,1-Dichloroethylene	68 ug/L	<1.0 ug/L	1.0 ug/L
Methylene Chloride	22 ug/L	<1.0 ug/L	1.0 ug/L
1,1,1-Trichloroethane	490 ug/L	1.0 ug/L	1.0 ug/L
Trichloroethylene	1620 ug/L	3.5 ug/L	1.0 ug/L

An invoice for services will follow. Thank you for contacting Assaigai Laboratories.

Thank you,



Thomas Dye
Laboratory Director

002660



February 1, 1991

Mr. Ven Samala
Sparton Technology Inc.
9621 Coors Road NW
Albuquerque, NM 87114

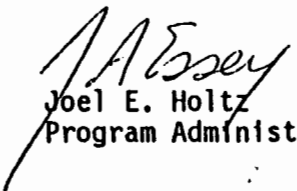
Dear Mr. Samala:

Enclosed is the report for ten aqueous samples received at Enseco-Rocky Mountain Analytical Laboratory on January 8 and 9, 1991.

Included with the report is a quality control summary.

Please call if you have any questions.

Sincerely,

(OK) 
Joel E. Holtz
Program Administrator

Reviewed by:


Sue Dalla
Manager
Program Administration

JEH/SD/lw
Enclosures

RMAL #013035

002661

ANALYTICAL RESULTS
FOR
SPARTON TECHNOLOGY INC.
ENSECO-RMAL NO. 013035



FEBRUARY 1, 1991

Reviewed by:

J. A. Holtz (fox)

Joel E. Holtz
Sue Dalla

Sue Dalla

002662

Enseco Incorporated
4955 Yarrow Street
Arvada, Colorado 80002
303/421-6611 Fax: 303/431-7171

Introduction

This report presents the analytical results as well as supporting information to aid in the evaluation and interpretation of the data and is arranged in the following order:

- o Sample Description Information
- o Analytical Test Requests
- o Analytical Results
- o Quality Control Report

All analyses at Enseco are performed so that the maximum concentration of sample consistent with the method is analyzed. Dilutions are at times required to avoid saturation of the detector, to achieve linearity for a specific target compound or to reduce matrix interferences. In this event, reporting limits are adjusted proportionately. Surrogate compounds may not be measurable in samples which have been diluted.

Samples 013035-0001, -0002 and -0005 through -0008 by Method 8240 were diluted due to elevated concentrations of target compound. The reporting limits were raised proportionately.

The TOX analysis for samples 013035-0006 and -0008 required dilutions due to matrix interference. The reporting limits were raised proportionately.

Sample Description Information

The Sample Description Information lists all of the samples received in this project together with the internal laboratory identification number assigned for each sample. Each project received at Enseco - RMAL is assigned a unique six digit number. Samples within the project are numbered sequentially. The laboratory identification number is a combination of the six digit project code and the sample sequence number.

Also given in the Sample Description Information is the Sample Type (matrix), Date of Sampling (if known) and Date of Receipt at the laboratory.

Analytical Test Requests

The Analytical Test Requests lists the analyses that were performed on each sample. The Custom Test column indicates where tests have been modified to conform to the specific requirements of this project.

002664

SAMPLE DESCRIPTION INFORMATION
for
Sparton Technology Inc.

Lab ID	Client ID	Matrix	Sampled		Received Date
			Date	Time	
013035-0001-SA	GROUNDWATER FROM MW-19	AQUEOUS	07 JAN 91	12:10	08 JAN 91
013035-0002-SA	GROUNDWATER FROM MW-9	AQUEOUS	07 JAN 91	13:30	08 JAN 91
013035-0003-SA	GROUNDWATER FROM MW-20	AQUEOUS	07 JAN 91	13:45	08 JAN 91
013035-0004-SA	TRIP BLANK	AQUEOUS	08 JAN 91		09 JAN 91
013035-0005-SA	GROUNDWATER FROM MW-22	AQUEOUS	08 JAN 91	09:30	09 JAN 91
013035-0006-SA	GROUNDWATER FROM MW-16	AQUEOUS	08 JAN 91	10:20	09 JAN 91
013035-0007-SA	GROUNDWATER FROM MW-21	AQUEOUS	08 JAN 91	10:30	09 JAN 91
013035-0008-SA	GROUNDWATER FROM MW-14	AQUEOUS	08 JAN 91	11:15	09 JAN 91
013035-0009-SA	GROUNDWATER FROM MW-15	AQUEOUS	08 JAN 91	11:30	09 JAN 91
013035-0010-SA	DEIONIZED WATER FIELD BLANK	AQUEOUS	08 JAN 91	11:25	09 JAN 91

002665

ANALYTICAL TEST REQUESTS
for
Sparton Technology Inc.

Lab ID: 013035	Group Code	Analysis Description	Custom Test?
0001 - 0010	A	pH	N
		Specific Conductance	N
		Volatile Organics	Y
		Target Compound List (TCL)	Y
		Screen - Volatile Organics	N
		Total Organic Carbon (TOC)	N
		Total Organic Halogen (TOX)	N

002666

Analytical Results

The analytical results for this project are presented in the following data tables. Each data table includes sample identification information, and when available and appropriate, dates sampled, received, authorized, prepared and analyzed. The authorization data is the date when the project was defined by the client such that laboratory work could begin.

Data sheets contain a listing of the parameters measured in each test, the analytical results and the Enseco reporting limit. Reporting limits are adjusted to reflect dilution of the sample, when appropriate. Solid and waste samples are reported on an "as received" basis, i.e. no correction is made for moisture content.

Enseco-RMAL is no longer routinely blank-correcting analytical data. Uncorrected analytical results are reported, along with associated blank results, for all organic and metals analyses. Analytical results and blank results are reported for conventional inorganic parameters as specified in the method. This policy is described in detail in the Enseco Incorporated Quality Assurance Program Plan for Environmental Chemical Monitoring, Revision 3.3, May, 1989.

The results from the Standard Enseco QA/QC Program, which generates data which are independent of matrix effects, is provided subsequently.

002667

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-19
Lab ID: 013035-0001-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91

Sampled: 07 JAN 91
Prepared: 09 JAN 91

Received: 08 JAN 91
Analyzed: 09 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	57	ug/L	50
Trichloroethene	680	ug/L	50
Surrogate	Recovery		
Toluene-d8	104	%	--
4-Bromofluorobenzene	103	%	--
1,2-Dichloroethane-d4	98	%	--

ND = Not detected
NA = Not applicable

Reported By: Tim Miller

Approved By: Jeff Lowry

002668

**Volatile Organics
Target Compound List (TCL)
Method 8240**

Client Name: Sparton Technology Inc.
 Client ID: GROUNDWATER FROM MW-9
 Lab ID: 013035-0002-SA
 Matrix: AQUEOUS
 Authorized: 08 JAN 91
 Sampled: 07 JAN 91
 Prepared: 09 JAN 91
 Received: 08 JAN 91
 Analyzed: 09 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	130	ug/L	100
Trichloroethene	1700	ug/L	100
Surrogate	Recovery		
Toluene-d8	102	%	--
4-Bromofluorobenzene	96	%	--
1,2-Dichloroethane-d4	97	%	--

ND = Not detected
 NA = Not applicable

Reported By: Tim Miller

Approved By: Jeff Lowry

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.
 Client ID: GROUNDWATER FROM MW-20
 Lab ID: 013035-0003-SA
 Matrix: AQUEOUS
 Authorized: 08 JAN 91
 Sampled: 07 JAN 91
 Prepared: 09 JAN 91
 Received: 08 JAN 91
 Analyzed: 09 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	ND	ug/L	5.0
Trichloroethene	28	ug/L	5.0
Surrogate	Recovery		
Toluene-d8	105	%	--
4-Bromofluorobenzene	96	%	--
1,2-Dichloroethane-d4	102	%	--

ND = Not detected
 NA = Not applicable

Reported By: Tim Miller

Approved By: Jeff Lowry

002670

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.

Client ID: TRIP BLANK

Lab ID: 013035-0004-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 08 JAN 91

Prepared: 11 JAN 91

Received: 09 JAN 91

Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Surrogate	Recovery		
Toluene-d8	98	%	--
4-Bromofluorobenzene	97	%	--
1,2-Dichloroethane-d4	97	%	--

ND = Not detected
 NA = Not applicable

Reported By: Stephanie Boehnke

Approved By: Jeff Lowry

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.

Client ID: GROUNDWATER FROM MW-22

Lab ID: 013035-0005-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 08 JAN 91

Prepared: 11 JAN 91

Received: 09 JAN 91

Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	47	ug/L	10
Trichloroethene	75	ug/L	10
Surrogate	Recovery		
Toluene-d8	99	%	--
4-Bromofluorobenzene	96	%	--
1,2-Dichloroethane-d4	97	%	--

ND = Not detected
NA = Not applicable

Reported By: Stephanie Boehnke

Approved By: Jeff Lowry

002672

**Volatile Organics
Target Compound List (TCL)
Method 8240**

Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-16
Lab ID: 013035-0006-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91
Sampled: 08 JAN 91
Prepared: 11 JAN 91
Received: 09 JAN 91
Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	ND	ug/L	1000
Trichloroethene	16000	ug/L	1000
Surrogate	Recovery		
Toluene-d8	102	%	--
4-Bromofluorobenzene	96	%	--
1,2-Dichloroethane-d4	96	%	--

ND - Not detected
NA - Not applicable

Reported By: Stephanie Boehnke

Approved By: Jeff Lowry

002673

**Volatile Organics
Target Compound List (TCL)
Method 8240**

Client Name: Sparton Technology Inc.

Client ID: GROUNDWATER FROM MW-21

Lab ID: 013035-0007-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 08 JAN 91

Prepared: 11 JAN 91

Received: 09 JAN 91

Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	76	ug/L	50
Trichloroethene	910	ug/L	50
Surrogate	Recovery		
Toluene-d8	104	%	--
4-Bromofluorobenzene	101	%	--
1,2-Dichloroethane-d4	95	%	--

ND = Not detected
NA = Not applicable

Reported By: Stephanie Boehnke

Approved By: Jeff Lowry

002674

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.
 Client ID: GROUNDWATER FROM MW-14
 Lab ID: 013035-0008-SA
 Matrix: AQUEOUS
 Authorized: 08 JAN 91

Sampled: 08 JAN 91
 Prepared: 11 JAN 91

Received: 09 JAN 91
 Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	ND	ug/L	100
Trichloroethene	1700	ug/L	100
Surrogate	Recovery		
Toluene-d8	103	%	--
4-Bromofluorobenzene	98	%	--
1,2-Dichloroethane-d4	97	%	--

ND = Not detected
 NA = Not applicable

Reported By: Stephanie Boehnke

Approved By: Jeff Lowry

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-15
Lab ID: 013035-0009-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91

Sampled: 08 JAN 91
Prepared: 11 JAN 91

Received: 09 JAN 91
Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	6.4	ug/L	5.0
Trichloroethene	110	ug/L	5.0
Surrogate	Recovery		
Toluene-d8	99	%	--
4-Bromofluorobenzene	97	%	--
1,2-Dichloroethane-d4	96	%	--

ND = Not detected
 NA = Not applicable

Reported By: Stephanie Boehnke

Approved By: Martha Goode

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Sparton Technology Inc.
Client ID: DEIONIZED WATER FIELD BLANK

Lab ID: 013035-0010-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 08 JAN 91

Prepared: 11 JAN 91

Received: 09 JAN 91

Analyzed: 11 JAN 91

Parameter	Result	Units	Reporting Limit
1,1-Dichloroethene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Surrogate	Recovery		
Toluene-d8	97	%	--
4-Bromofluorobenzene	94	%	--
1,2-Dichloroethane-d4	99	%	--

ND = Not detected
NA = Not applicable

Reported By: Stephanie Boehnke

Approved By: Martha Goode

002677

General Inorganics

Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-19
Lab ID: 013035-0001-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91

Sampled: 07 JAN 91
Prepared: See Below

Received: 08 JAN 91
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	7.6	units	--	9040	NA	08 JAN 91
Specific Conductance at 25 deg.C	666	umhos/cm	1.0	120.1	NA	08 JAN 91
Total Organic Carbon	1.3	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	496	ug/L	30.0	9020	NA	11 JAN 91

ND = Not detected
 NA = Not applicable

Reported By: Eileen Burke

Approved By: Roxanne Sullivan

General Inorganics



Client Name: Sparton Technology Inc.

Client ID: GROUNDWATER FROM MW-9

Lab ID: 013035-0002-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 07 JAN 91

Prepared: See Below

Received: 08 JAN 91

Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	7.5	units	--	9040	NA	08 JAN 91
Specific Conductance at 25 deg.C	934	umhos/cm	1.0	120.1	NA	08 JAN 91
Total Organic Carbon	1.7	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	863	ug/L	30.0	9020	NA	11 JAN 91

ND = Not detected
 NA = Not applicable

Reported By: Eileen Burke

Approved By: Roxanne Sullivan

002679

General Inorganics



Client Name: Sparton Technology Inc.

Client ID: GROUNDWATER FROM MW-20

Lab ID: 013035-0003-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 07 JAN 91

Prepared: See Below

Received: 08 JAN 91

Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	7.8	units	--	9040	NA	08 JAN 91
Specific Conductance at 25 deg.C	650	umhos/cm	1.0	120.1	NA	08 JAN 91
Total Organic Carbon	1.2	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	53.4	ug/L	30.0	9020	NA	11 JAN 91

ND = Not detected

NA = Not applicable

Reported By: Eileen Burke

Approved By: Roxanne Sullivan

002680

General Inorganics**Client Name: Sparton Technology Inc.****Client ID: TRIP BLANK****Lab ID: 013035-0004-SA****Matrix: AQUEOUS****Authorized: 08 JAN 91****Sampled: 08 JAN 91****Prepared: See Below****Received: 09 JAN 91****Analyzed: See Below**

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	7.0	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	11.3	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	ND	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	ND	ug/L	30.0	9020	NA	11 JAN 91

ND = Not detected
NA = Not applicable

Reported By: Eileen Burke**Approved By: Roxanne Sullivan****002681**

General Inorganics



Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-22
Lab ID: 013035-0005-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91

Sampled: 08 JAN 91
Prepared: See Below

Received: 09 JAN 91
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	8.2	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	675	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	1.6	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	161	ug/L	30.0	9020	NA	11 JAN 91

ND = Not detected
NA = Not applicable

Reported By: Eileen Burke

Approved By: Roxanne Sullivan

General Inorganics



Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-16
Lab ID: 013035-0006-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91

Sampled: 08 JAN 91
Prepared: See Below

Received: 09 JAN 91
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	7.9	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	1790	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	4.2	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	8460	ug/L	300	9020	NA	12 JAN 91

ND = Not detected
NA = Not applicable

Reported By: Steve Pope

Approved By: Roxanne Sullivan

002683

General Inorganics

Client Name: Sparton Technology Inc.

Client ID: GROUNDWATER FROM MW-21

Lab ID: 013035-0007-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 08 JAN 91

Prepared: See Below

Received: 09 JAN 91

Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	8.2	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	659	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	0.70	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	822	ug/L	30.0	9020	NA	12 JAN 91

 ND = Not detected
 NA = Not applicable

Reported By: Steve Pope

Approved By: Roxanne Sullivan

002684

General Inorganics



Client Name: Sparton Technology Inc.
Client ID: GROUNDWATER FROM MW-14
Lab ID: 013035-0008-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91

Sampled: 08 JAN 91
Prepared: See Below

Received: 09 JAN 91
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	10.6	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	830	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	1.7	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	712	ug/L	150	9020	NA	15 JAN 91

ND = Not detected
NA = Not applicable

Reported By: Steve Pope

Approved By: Roxanne Sullivan

002685

General Inorganics

Client Name: Sparton Technology Inc.

Client ID: GROUNDWATER FROM MW-15

Lab ID: 013035-0009-SA

Matrix: AQUEOUS

Authorized: 08 JAN 91

Sampled: 08 JAN 91

Prepared: See Below

Received: 09 JAN 91

Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	8.3	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	863	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	1.1	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	108	ug/L	30.0	9020	NA	12 JAN 91

ND - Not detected
NA - Not applicable

Reported By: Steve Pope

Approved By: Roxanne Sullivan

002686

General Inorganics



Client Name: Sparton Technology Inc.
Client ID: DEIONIZED WATER FIELD BLANK
Lab ID: 013035-0010-SA
Matrix: AQUEOUS
Authorized: 08 JAN 91
Sampled: 08 JAN 91
Prepared: See Below
Received: 09 JAN 91
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
pH	6.5	units	--	9040	NA	09 JAN 91
Specific Conductance at 25 deg.C	1.5	umhos/cm	1.0	120.1	NA	09 JAN 91
Total Organic Carbon	ND	mg/L	0.50	9060	NA	16 JAN 91
Total Organic Halogen as Cl	ND	ug/L	30.0	9020	NA	12 JAN 91

ND = Not detected
NA = Not applicable

Reported By: Steve Pope

Approved By: Roxanne Sullivan

002687

Quality Control Results

The Enseco laboratories operate under a vigorous QA/QC program designed to ensure the generation of scientifically valid, legally defensible data by monitoring every aspect of laboratory operations. Routine QA/QC procedures include the use of approved methodologies, independent verification of analytical standards, use of duplicate Laboratory Control Samples to assess the precision and accuracy of the methodology on a routine basis, and a rigorous system of data review.

In addition, the Enseco laboratories maintain a comprehensive set of certifications from both state and federal governmental agencies which require frequent analyses of blind audit samples. Enseco - Rocky Mountain Analytical Laboratory is certified by the EPA under the EPA/CLP program for both Organic and Inorganic analyses, under the USATHAMA (U.S. Army) program, by the Army Corps of Engineers, and the states of Colorado, New Jersey, New York, Utah, and Florida, among others.

The standard laboratory QC package is designed to:

- 1) establish a strong, cost-effective QC program that ensures the generation of scientifically valid, legally defensible data
- 2) assess the laboratory's performance of the analytical method using control limits generated with a well-defined matrix
- 3) establish clear-cut guidelines for acceptability of analytical data so that QC decisions can be made immediately at the bench, and
- 4) provide a standard set of reportables which assures the client of the quality of his data.

The Enseco QC program is based upon monitoring the precision and accuracy of an analytical method by analyzing a set of Duplicate Control Samples (DCS) at frequent, well-defined intervals. Each DCS is a well-characterized matrix which is spiked with target compounds at 5-100 times the reporting limit, depending upon the methodology being monitored. The purpose of the DCS is not to duplicate the sample matrix, but rather to provide an interference-free, homogeneous matrix from which to gather data to establish control limits. These limits are used to determine whether data generated by the laboratory on any given day is in control.

Control limits for accuracy (percent recovery) are based on the average, historical percent recovery +/- 3 standard deviation units. Control limits for precision (relative percent difference) range from 0 (identical duplicate DCS results) to the average, historical relative percent difference + 3 standard deviation units. These control limits are fairly narrow based on the consistency of the matrix being monitored and are updated on a quarterly basis.

For each batch of samples analyzed, an additional control measure is taken in the form of a Single Control Sample (SCS). The SCS consists of a control matrix that is spiked with either representative target compounds or surrogate compounds appropriate to the method being used. An SCS is prepared for each sample lot for which the DCS pair are not analyzed.

Accuracy for DCS and SCS is measured by Percent Recovery.

$$\% \text{ Recovery} = \frac{\text{Measured Concentration}}{\text{Actual Concentration}} \times 100$$

Precision for DCS is measured by Relative Percent Difference (RPD).

$$\text{RPD} = \frac{|\text{Measured Concentration DCS1} - \text{Measured Concentration DCS2}|}{(\text{Measured Concentration DCS1} + \text{Measured Concentration DCS2})/2} \times 100$$

All samples analyzed concurrently by the same test are assigned the same QC lot number. Projects which contain numerous samples, analyzed over several days, may have multiple QC lot numbers associated with each test. The QC information which follows includes a listing of the QC lot numbers associated with each of the samples reported, DCS and SCS (where applicable) recoveries from the QC lots associated with the samples, and control limits for these lots. The QC data is reported by test code, in the order that the tests are reported in the analytical results section of this report.

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
013035-0001-SA	AQUEOUS	624-A	19 DEC 90-B	09 JAN 91-B
013035-0002-SA	AQUEOUS	624-A	19 DEC 90-B	09 JAN 91-B
013035-0003-SA	AQUEOUS	624-A	19 DEC 90-B	09 JAN 91-B
013035-0004-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B
013035-0005-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B
013035-0006-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B
013035-0007-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B
013035-0008-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B
013035-0009-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B
013035-0010-SA	AQUEOUS	624-A	11 JAN 91-B	11 JAN 91-B

METHOD BLANK REPORT
Volatile Organics by GC/MS

Analyte	Result	Units	Reporting Limit
Test: 8240CP-TCL-AP Matrix: AQUEOUS QC Lot: 19 DEC 90-B QC Run: 09 JAN 91-B			
1,1-Dichloroethene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Test: 8240CP-TCL-AP Matrix: AQUEOUS QC Lot: 11 JAN 91-B QC Run: 11 JAN 91-B			
1,1-Dichloroethene	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0

QC LOT ASSIGNMENT REPORT
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
013035-0001-SA	AQUEOUS	PH-A	08 JAN 91-A	-
013035-0001-SA	AQUEOUS	COND-A	08 JAN 91-A	-
013035-0001-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0001-SA	AQUEOUS	TOX-A	11 JAN 91-A	-
013035-0002-SA	AQUEOUS	PH-A	08 JAN 91-A	-
013035-0002-SA	AQUEOUS	COND-A	08 JAN 91-A	-
013035-0002-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0002-SA	AQUEOUS	TOX-A	11 JAN 91-A	-
013035-0003-SA	AQUEOUS	PH-A	08 JAN 91-A	-
013035-0003-SA	AQUEOUS	COND-A	08 JAN 91-A	-
013035-0003-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0003-SA	AQUEOUS	TOX-A	11 JAN 91-A	-
013035-0004-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0004-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0004-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0004-SA	AQUEOUS	TOX-A	11 JAN 91-A	-
013035-0005-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0005-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0005-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0005-SA	AQUEOUS	TOX-A	11 JAN 91-A	-
013035-0006-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0006-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0006-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0006-SA	AQUEOUS	TOX-A	12 JAN 91-M	-
013035-0007-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0007-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0007-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0007-SA	AQUEOUS	TOX-A	12 JAN 91-M	-
013035-0008-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0008-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0008-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0008-SA	AQUEOUS	TOX-A	15 JAN 91-M	-
013035-0009-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0009-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0009-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0009-SA	AQUEOUS	TOX-A	12 JAN 91-M	-
013035-0010-SA	AQUEOUS	PH-A	09 JAN 91-F	-
013035-0010-SA	AQUEOUS	COND-A	09 JAN 91-F	-
013035-0010-SA	AQUEOUS	TOC-A	16 JAN 91-M	-
013035-0010-SA	AQUEOUS	TOX-A	12 JAN 91-M	-

DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation

Analyte	Concentration		Measured	AVG	Accuracy		Precision	
	Spiked	DCS1			DCS2	DCS	Limits	(RPD)
Category: PH-A Matrix: AQUEOUS QC Lot: 08 JAN 91-A Concentration Units: units								
pH	9.2	9.08	9.08	9.08	99	98-102	0.0	5
Category: COND-A Matrix: AQUEOUS QC Lot: 08 JAN 91-A Concentration Units: umhos/cm								
Specific Conductance at 25 deg.C	1910	1910	1890	1900	99	95-105	1.1	20
Category: TOC-A Matrix: AQUEOUS QC Lot: 16 JAN 91-M Concentration Units: mg/L								
Total Organic Carbon	25	26.3	24.8	25.6	102	91-109	5.9	20
Category: TOX-A Matrix: AQUEOUS QC Lot: 11 JAN 91-A Concentration Units: ug Cl/L								
Total Organic Halogen as Cl	100	90.8	91.2	91.0	91	80-120	0.4	20
Category: PH-A Matrix: AQUEOUS QC Lot: 09 JAN 91-F Concentration Units: units								
pH	9.2	9.07	9.06	9.06	99	98-102	0.1	5

Calculations are performed before rounding to avoid round-off errors in calculated results.

DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation (cont.)

Analyte	Concentration		Measured DCS2	AVG	Accuracy Average(%)		Precision (RPD)		
	Spiked	DCS1			DCS	Limits	DCS Limit	DCS Limit	
Category: COND-A Matrix: AQUEOUS QC Lot: 09 JAN 91-F Concentration Units: umhos/cm									
Specific Conductance at 25 deg.C	1910	1950	1950	1950	102	95-105	0.0	20	
Category: TOX-A Matrix: AQUEOUS QC Lot: 12 JAN 91-M Concentration Units: ug Cl/L									
Total Organic Halogen as Cl	100	92.1	86.4	89.2	89	80-120	6.4	20	
Category: TOX-A Matrix: AQUEOUS QC Lot: 15 JAN 91-M Concentration Units: ug Cl/L									
Total Organic Halogen as Cl	100	96.3	90.3	93.3	93	80-120	6.4	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.