



BRUCE KING  
GOVERNOR

State of New Mexico  
**IRONMENT DEPARTMENT**  
Harold Runnels Building  
1190 St. Francis Drive, P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-2850

*file*  
*ST / rec / 93*  
JUDITH M. ESPINOSA  
SECRETARY

RON CURRY  
DEPUTY SECRETARY

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

August 23, 1993

Mr. Richard D. Mico  
Vice President and General Manager  
Sparton Technology, Inc.  
4901 Rockaway Blvd., SE  
Rio Rancho, New Mexico 87124

Re: **Split Sampling from Comprehensive Groundwater Monitoring  
Evaluation Conducted on July 26-27, 1993, Sparton  
Technology, Inc., Albuquerque**

Dear Mr. Mico:

In accordance with general provisions of Section IV.B of the October, 1988 Administrative Order on Consent (AOC), the Hazardous and Radioactive Materials Bureau (HRMB) is providing a copy of the analytical results from the July 26-27, 1993 Comprehensive Groundwater Monitoring Evaluation (CME) conducted at Sparton Technology, Inc (Sparton). These data represent the final validated results for groundwater from monitoring wells 15, 32, 36, 41, 44, 53, 55, 56, 58, 60, 61, and 62. In compliance with Section IV.B of the AOC, please transmit as soon as possible a complete copy of Sparton's validated analytical results of split samples acquired during the CME.

Sparton-CME  
August 23, 1993  
Page 2

HRMB personnel, who conducted the on-site portion of the CME and who monitored the groundwater sampling procedures conducted by Metric Corp. for Sparton, concluded that the groundwater sampling was performed well within accepted guidelines.

If there are any questions, please contact Ron Kern of my staff at (505) 827-4313.

Sincerely,

A handwritten signature in cursive script that reads "Steven M. Alexander".

Steven M. Alexander, Program Manager

Enclosures

cc: (w/ enclosures)  
Vincent Malott, 6H-CX, EPA Region VI

cc: (w/o enclosures)  
Garth Graves, NMED District I, Albuquerque  
Ron Kern, HRMB  
File



Analytical**Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107  
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 307356



August 13, 1993

New Mexico Environment Dept.  
P.O. Box 26110  
Santa Fe, NM 87502

Project Name/Number: SPARTON TECH., CME

Attention: Steve Alexander

On **07/26/93**, Analytical Technologies, Inc. received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

D indicates the compound was analyzed at a greater dilution.

Due to matrix interferences, Selenium spike analysis was performed using the Method of Standards Additions (MSA). The spike result given is the correlation coefficient (CC), which is  $\geq 0.995$ .

All analyses were performed by ATI, Phoenix.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

*Adela M Cantu*

Adela M. Cantu  
Senior Organic Chemist

*Letitia Krakowski*

Letitia Krakowski  
Acting Laboratory Manager

LAK:jd

Enclosure



Analytical **Technologies**, Inc.

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECH., CME  
ATI I.D. : 307356

DATE RECEIVED : 07/26/93  
REPORT DATE : 08/13/93

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	MW #55	AQUEOUS	07/26/93
02	MW #56	AQUEOUS	07/26/93
03	MW #53	AQUEOUS	07/26/93
04	MW #58	AQUEOUS	07/26/93
05	MW #62	AQUEOUS	07/26/93
06	TRIP BLANK	AQUEOUS	07/26/93

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	6

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

007078



Analytical Technologies, Inc.

## METALS RESULTS

ATI I.D. : 307356

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECH., CME

DATE RECEIVED : 07/26/93

REPORT DATE : 08/13/93

PARAMETER	UNITS	01 <sub>NA-S</sub>	02 <sub>NA-Sb</sub>	03 <sub>NA-S</sub>	04 <sub>NA-S</sub>	05 <sub>NA-S</sub>
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	<0.005	<0.005	0.005	<0.005	<0.005
BERYLLIUM (EPA 200.7/6010)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	0.0017	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	0.130	0.438	0.114	0.159	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	<0.020
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	0.004	<0.002	<0.002
ANTIMONY (EPA 200.7/6010)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	<0.005	<0.005	<0.005	0.014
THALLIUM (EPA 279.2/7841)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	<0.020

007079



Analytical Technologies, Inc.

## METALS - QUALITY CONTROL

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)

PROJECT NAME : SPARTON TECH ., CME

ATI I.D. : 307356

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER	MG/L	30735701	<0.010	<0.010	NA	0.965	1.00	96
ARSENIC	MG/L	30735601	<0.005	<0.005	NA	0.056	0.050	112
BERYLLIUM	MG/L	30735701	<0.005	<0.005	NA	0.924	1.00	92
CADMIUM	MG/L	30735601	<0.0005	<0.0005	NA	0.0048	0.0050	96
CHROMIUM	MG/L	30735701	0.421	0.421	0	1.38	1.00	96
COPPER	MG/L	30735701	<0.010	<0.010	NA	0.980	1.00	98
MERCURY	MG/L	30735702	<0.0002	<0.0002	NA	0.0051	0.0050	102
MERCURY	MG/L	30735602	<0.0002	<0.0002	NA	0.0051	0.0050	102
NICKEL	MG/L	30735701	<0.020	<0.020	NA	0.996	1.00	100
LEAD	MG/L	30735602	<0.002	<0.002	NA	0.049	0.050	98
ANTIMONY	MG/L	30735701	<0.05	<0.05	NA	0.97	1.00	97
SELENIUM	MG/L	30735605	0.014	0.013	7	MSA	CC=	.997
THALLIUM	MG/L	30735701	<0.005	<0.005	NA	0.051	0.050	102
ZINC	MG/L	30735701	<0.020	<0.020	NA	1.05	1.00	105

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

007080



Analytical Technologies, Inc.

## GCMS - RESULTS

ATI I.D. : 30735601

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECH ., CME  
CLIENT I.D. : MW #55  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

## COMPOUNDS

## RESULTS

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	250 D
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	90
BROMOFLUOROBENZENE (%)	99
TOLUENE-D8 (%)	97

007081



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735601

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007082



## GCMS - RESULTS

ATI I.D. : 30735602

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/26/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/26/93
PROJECT NAME	: SPARTON TECH., CME	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW #56	DATE ANALYZED	: 08/04/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	7
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	320 D
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	92
BROMOFLUOROBENZENE (%)	100
TOLUENE-D8 (%)	92

007083



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735602

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007084



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 30735603

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECH., CME  
CLIENT I.D. : MW #53  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS RESULTS  
-----

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	30
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	88
BROMOFLUOROBENZENE (%)	97
TOLUENE-D8 (%)	91

007085



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735603

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007086



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 30735604

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECH., CME  
CLIENT I.D. : MW #58  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS RESULTS  
-----

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	62
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	90
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	97

007087



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735604

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007088



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 30735605

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/26/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/26/93
PROJECT NAME	: SPARTON TECH ., CME	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW #62	DATE ANALYZED	: 08/04/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	15
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	15
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	4
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLEETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	90
BROMOFLUOROBENZENE (%)	100
TOLUENE-D8 (%)	96

007089



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735605

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007090





Analytical Technologies, Inc.

# GCMS - RESULTS

ATI I.D. : 30735606

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECH., CME  
CLIENT I.D. : TRIP BLANK  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

## COMPOUNDS RESULTS

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	90
BROMOFLUOROBENZENE (%)	95
TOLUENE-D8 (%)	90

007091



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735606

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007092



Analytical Technologies, Inc.

## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	ATI I.D.	: 307356
PROJECT #	: (NONE)	DATE EXTRACTED	: 08/04/93
PROJECT NAME	: SPARTON TECH., CME	DATE ANALYZED	: 08/04/93
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	93
TOLUENE-D8 (%)	91

007093



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 307356

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)

DATE ANALYZED : 08/04/93

PROJECT NAME : SPARTON TECH ., CME

SAMPLE MATRIX : AQUEOUS

REF I.D. : 30735603

UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.		RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<1	50	52	104	46	92	12
TRICHLOROETHENE	30	50	77	94	78	96	1
CHLOROBENZENE	<1	50	48	96	48	96	0
TOLUENE	<1	50	47	94	47	94	0
BENZENE	<1	50	49	98	48	96	2

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

007094

# CHAIN OF CUSTODY

DATE: 7/26/93 PAGE 1 OF 1

ATI LAB I.D. 307356

PROJECT MANAGER: Steve Alexander

COMPANY: NMED

ADDRESS:

PHONE:

FAX:

BILL TO: Hazardous Radiactive Materials

COMPANY: 525 Camino de los Marquez

ADDRESS: Santa Fe, NM 87502

## ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
MW #55	7/26		Water	01
MW #56	7/26		Water	02
MW #53	7/26		"	03
MW #58	7/26		"	04
MW #62	7/26		Water	05
Trip Blank	7/26/93		"	06

Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal	The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)	NUMBER
																			3
																			3
																			3
																			3
																			3
																			1

PROJECT INFORMATION	SAMPLE RECEIPT	
PROJ. NO.: Spenton Tech, CIVIC	NO. CONTAINERS	16
PROJ. NAME: Spenton Tech, CIVIC	CUSTODY SEALS	Y/N/NA
P.O. NO.: 394041-08	RECEIVED INTACT	Y
SHIPPED VIA:	RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒ 2 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Steve Alexander Time: 16:20	Signature:	Signature:
Printed Name: Steve Alexander Date: 7/26/93	Printed Name:	Printed Name:
Company: HRMB Phone: 827-4313	Company:	Company:
RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: (LAB) 3.
Signature:	Signature:	Signature: [Signature] Time: 1620
Printed Name:	Printed Name:	Printed Name: [Signature] Date: 7/26/93
Company:	Company:	Analytical Technologies, Inc.



## Chain of Custody

DATE 7/26/93 PAGE 1 OF 1

NETWORK PROJECT MANAGER: BETH PROFFITT					ANALYSIS REQUEST																						
COMPANY: Analytical Technologies, Inc. ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107					TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/6310		8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (62/8240)	13 Priority Pollutant Metals	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O <sub>2</sub> , CO <sub>2</sub> , METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
CLIENT PROJECT MANAGER:																											
SAMPLE ID	DATE	TIME	MATRIX	LAB ID																							
307356-1	7/26/93		RO	1											X	X											
-2				2											X	X											
-3				3											X	X											
-4				4											X	Y											
-5				5											X	Y											
-6 (TB)				6											X												

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:	RELINQUISHED BY: 1.	RELINQUISHED BY: 2.
PROJECT NUMBER: 307356	TOTAL NUMBER OF CONTAINERS: 16	PROJECT NAME: NMED	CHAIN OF CUSTODY SEALS: 2	SAN DIEGO	Signature: [Signature]	Signature: [Signature]
QC LEVEL: STD. IV	INTACT?: Y	QC REQUIRED: MS MSD BLANK	RECEIVED GOOD COND./COLD: Y	FT. COLLINS	Date: 7/30	Date: [Date]
TAT: STANDARD RUSH!	LAB NUMBER: 307356			RENTON	Printed Name: [Name]	Printed Name: [Name]
				PENSACOLA	Company: Analytical Technologies, Inc.	Company: [Company]
				PHOENIX	RECEIVED BY: (LAB) 1.	RECEIVED BY: (LAB) 2.
				BARRINGER	Signature: [Signature]	Signature: [Signature]
				FIBERQUANT	Date: [Date]	Date: [Date]
DUE DATE: 8/9/93					Printed Name: [Name]	Printed Name: [Name]
RUSH SURCHARGE: 0					Date: [Date]	Date: [Date]
CLIENT DISCOUNT: 10%					Company: [Company]	Company: [Company]

960200



Analytical**Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107  
Phone (505) 344-3777 FAX (505) 344-4413

Received 8-16-93  
3 Q 1993 CME  
MW-56, 55, 53, 58, 62 for  
MS240 + 13 PP metals

ATI I.D. 307357

August 13, 1993

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

Project Name/Number: CRFGW MONITORING 3QNMED CME

Attention: John Wakefield

On 07/26/93, Analytical Technologies, Inc. received a request to analyze aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

D indicates the compound was analyzed at a greater dilution.

All analyses were performed by ATI, Phoenix.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

*Adela M. Cantu*

Adela M. Cantu  
Senior Organic Chemist

*Letitia Krakowski*

Letitia Krakowski  
Acting Laboratory Manager

LAK:jd

Enclosure



Analytical Technologies, Inc.

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING

DATE RECEIVED : 07/26/93

REPORT DATE : 08/13/93

ATI I.D. : 307357

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	MW-56	AQUEOUS	07/26/93
02	MW-55	AQUEOUS	07/26/93
03	MW-53	AQUEOUS	07/26/93
04	MW-58	AQUEOUS	07/26/93
05	MW-62	AQUEOUS	07/26/93

----- TOTALS -----

MATRIX	# SAMPLES
-----	-----
AQUEOUS	5

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

007058





Analytical Technologies, Inc.

ACCESSION #: 307357

<u>PARAMETER</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>	<u>ANALYST</u>
Volatile Organics (1,2,4,5)	8240	08/04/93	M. Bergenheier
Volatile Organics (3)	8240	08/05/93	M. Bergenheier
Silver	6010	07/28/93	J. Hrubant
Arsenic	7060	07/27/93	M. Wilson
Beryllium	6010	07/28/93	J. Hrubant
Cadmium	7131	07/27/93	K. Jagger
Chromium	6010	07/28/93	J. Hrubant
Copper	6010	07/28/93	J. Hrubant
Mercury	7470	07/29/93	P. Van Cooney
Nickel	6010	07/28/93	J. Hrubant
Lead	7421	07/27/93	M. Wilson
Antimony	6010	07/28/93	J. Hrubant
Selenium	7740	07/27/93	M. Wilson
Thallium	7841	07/28/93	K. Jagger
Zinc	6010	07/28/93	J. Hrubant

Reference: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, (SW 846, 3rd ed.)

007059



Analytical Technologies, Inc.

## METALS RESULTS

ATI I.D. : 307357

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING

DATE RECEIVED : 07/26/93

REPORT DATE : 08/13/93

PARAMETER	UNITS	01	02	03	04	05
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	<0.005	<0.005	<0.005	0.006	<0.005
BERYLLIUM (EPA 200.7/6010)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	0.421	0.129	0.109	0.165	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	<0.020
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	<0.002	<0.002	<0.002
ANTIMONY (EPA 200.7/6010)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
THALLIUM (EPA 279.2/7841)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	0.034

007060



Analytical Technologies, Inc.

## METALS - QUALITY CONTROL

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING

ATI I.D. : 307357

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER	MG/L	30735701	<0.010	<0.010	NA	0.965	1.00	96
ARSENIC	MG/L	30735701	<0.005	<0.005	NA	0.054	0.050	108
BERYLLIUM	MG/L	30735701	<0.005	<0.005	NA	0.924	1.00	92
CADMIUM	MG/L	30735705	<0.0005	<0.0005	NA	0.0054	0.0050	108
CHROMIUM	MG/L	30735701	0.421	0.421	0	1.38	1.00	96
COPPER	MG/L	30735701	<0.010	<0.010	NA	0.980	1.00	98
MERCURY	MG/L	30735702	<0.0002	<0.0002	NA	0.0051	0.0050	102
NICKEL	MG/L	30735701	<0.020	<0.020	NA	0.996	1.00	100
LEAD	MG/L	30735705	<0.002	<0.002	NA	0.050	0.050	100
ANTIMONY	MG/L	30735701	<0.05	<0.05	NA	0.97	1.00	97
SELENIUM	MG/L	30735605	0.014	0.013	7	MSA	CC=	.99
THALLIUM	MG/L	30735701	<0.005	<0.005	NA	0.051	0.050	102
ZINC	MG/L	30735701	<0.020	<0.020	NA	1.05	1.00	105

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

007061



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735701

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007062



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 30735701

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : MW-56  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	9
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	320 D
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	90
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	97

007063



Analytical Technologies, Inc.

## GCMS - RESULTS

ATI I.D. : 30735702

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : MW-55  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	240 D
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	101
TOLUENE-D8 (%)	101

007064



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735702

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007065



Analytical Technologies, Inc.

## GCMS - RESULTS

ATI I.D. : 30735703

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : MW-53  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/05/93  
UNITS : UG/L  
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	33
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	99
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	94

007066





Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735703

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007067



Analytical **Technologies**, Inc. ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735704

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007068



Analytical Technologies, Inc.

## GCMS - RESULTS

ATI I.D. : 30735704

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : MW-58  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	62
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	98

007069



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735705

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007070



Analytical Technologies, Inc.

## GCMS - RESULTS

ATI I.D. : 30735705

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : MW-62  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/26/93  
DATE RECEIVED : 07/26/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : 1

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	18
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	14
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	3
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	90
BROMOFLUOROBENZENE (%)	98
TOLUENE-D8 (%)	98

007071



Analytical Technologies, Inc.

## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 307357  
DATE EXTRACTED : 08/04/93  
DATE ANALYZED : 08/04/93  
UNITS : UG/L  
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	93
TOLUENE-D8 (%)	91

007072



Analytical Technologies, Inc.

## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 307357  
DATE EXTRACTED : 08/05/93  
DATE ANALYZED : 08/05/93  
UNITS : UG/L  
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	91
TOLUENE-D8 (%)	88

007073



DATE: 7-26-93 PAGE 1 OF 1

307357

ADDRESS: 4901 Rockaway Blvd. SE  
Red Rancho NM 87124

[illegible]

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
MW-56	7-26-93	1238	HCl, HNO <sub>3</sub>	01
MW-55	7-26-93	1249	" "	02
MW-53	7-26-93	1457	" "	03
MW-58	7-26-93	1503	" "	04
MW-62	7-26-93	1541	" "	05

C.O.C. seals were placed on outside of cooler.

the





Analytical Technologies, Inc. Albuquerque, NM

## Chain of Custody

DATE 7/26/93 PAGE 1 OF 1

NETWORK PROJECT MANAGER: BETH PROFFITT					ANALYSIS REQUEST																					
COMPANY: Analytical Technologies, Inc. ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107					TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatiles Organics GC/MS (62/8240)	13 Priority Pollutant Metals	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O <sub>2</sub> , CO <sub>2</sub> , METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
SAMPLE ID	DATE	TIME	MATRIX	LAB ID																						
307357-1	7/26/93	1238	AD	1											X	X									3	
-2		1249		2											X	X									3	
-3		1457		3											X	X									3	
-4		1503		4											X	X									3	
-5		1541		5											X	X									3	

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJECT NUMBER: 307357	TOTAL NUMBER OF CONTAINERS: 15	PROJECT NAME: STI	CHAIN OF CUSTODY SEALS: 2	SAN DIEGO	Signature: [Signature]	Time: 1730	Signature: [Signature]	Time: [Time]	
QC LEVEL: STD IV	INTACT?: Y	QC REQUIRED: MS MSD BLANK	RECEIVED GOOD COND. COLD: Y	FT. COLLINS	Printed Name: [Name]	Date: 7/26/93	Printed Name: [Name]	Date: [Date]	
TAT: STANDARD RUSH	LAB NUMBER: 307357			RENTON	Analytical Technologies, Inc. Albuquerque		Company: [Company]		
				PENSACOLA	RECEIVED BY: (LAB) 1.		RECEIVED BY: (LAB) 2.		
				PHOENIX	Signature: [Signature]	Time: [Time]	Signature: [Signature]	Time: [Time]	
				BARRINGER	Printed Name: [Name]	Date: [Date]	Printed Name: [Name]	Date: [Date]	
				FIBERQUANT	Company: [Company]		Company: [Company]		
DUE DATE: 8/2/93				W.O. # 12560					
RUSH SURCHARGE: [Blank]									
CLIENT DISCOUNT: 10%									
				ATL					

007075



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 307357

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MONITORING  
REF I.D. : 30735703

DATE ANALYZED : 08/05/93  
SAMPLE MATRIX : AQUEOUS  
UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
					% SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	<1	50	47	94	41	82	14
TRICHLOROETHENE	33	50	79	92	79	92	0
CHLOROBENZENE	<1	50	48	96	48	96	0
TOLUENE	<1	50	44	88	42	84	5
BENZENE	<1	50	46	92	45	90	2

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

007076



Analytical**Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107  
Phone (505) 344-3777 FAX (505) 344-4413

File Rel  
ST / ~~10/2~~ / 93

ATI I.D. 307359



August 18, 1993

New Mexico Environment Dept.  
P.O. Box 26110  
Santa Fe, NM 87502

Project Name/Number: SPARTON TECHNOLOGIES

Attention: Steve Alexander

On 07/27/93, Analytical Technologies, Inc. received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

All analyses were performed by ATI, Phoenix.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

*Adela M. Cantu*

Adela M. Cantu  
Senior Organic Chemist

*Letitia Krakowski*

Letitia Krakowski  
Acting Laboratory Manager

LAK:jd

Enclosure



Analytical**Technologies**, Inc.

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECHNOLOGIES  
ATI I.D. : 307359

DATE RECEIVED : 07/27/93  
REPORT DATE : 08/18/93

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	MW-15	AQUEOUS	07/27/93
02	MW-41	AQUEOUS	07/27/93
03	MW-36	AQUEOUS	07/27/93
04	MW-32	AQUEOUS	07/27/93
05	MW-60	AQUEOUS	07/27/93
06	MW-61	AQUEOUS	07/27/93
07	TRIP BLANK	AQUEOUS	07/26/93
08	MW-44	AQUEOUS	07/27/93

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	8

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

007098



Analytical Technologies, Inc.

## METALS RESULTS

ATI I.D. : 307359

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

DATE RECEIVED : 07/27/93

PROJECT # : (NONE)

PROJECT NAME : SPARTON TECHNOLOGIES

REPORT DATE : 08/18/93

PARAMETER	UNITS	01 <i>m...l</i>	02 <i>m...l</i>	03 <i>m...l</i>	04 <i>m...l</i>	05 <i>m...l</i>
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	0.008	<0.005	<0.005	<0.005	<0.005
BERYLLIUM (EPA 200.7/6010)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010	0.057	<0.010	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	0.033	<0.020
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	<0.002	<0.002	<0.002
ANTIMONY (EPA 200.7/6010)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
THALLIUM (EPA 279.2/7841)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	<0.020

007099



Analytical Technologies, Inc.

## METALS RESULTS

ATI I.D. : 307359

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

DATE RECEIVED : 07/27/93

PROJECT # : (NONE)

PROJECT NAME : SPARTON TECHNOLOGIES

REPORT DATE : 08/18/93

PARAMETER	UNITS	06 <i>ppm</i>	08 <i>ppm</i>
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	<0.005	0.005
BERYLLIUM (EPA 200.7/6010)	MG/L	<0.005	<0.005
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	<0.010
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002
NICKEL (EPA 200.7/6010)	MG/L	<0.020	<0.020
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002
ANTIMONY (EPA 200.7/6010)	MG/L	<0.05	<0.05
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	<0.005
THALLIUM (EPA 279.2/7841)	MG/L	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.020	<0.020

007100



Analytical Technologies, Inc.

## METALS - QUALITY CONTROL

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)

PROJECT NAME : SPARTON TECHNOLOGIES

ATI I.D. : 307359

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER	MG/L	30735902	<0.010	<0.010	NA	1.02	1.00	102
ARSENIC	MG/L	30735901	0.008	0.008	0	0.059	0.050	102
BERYLLIUM	MG/L	30735902	<0.005	<0.005	NA	0.979	1.00	98
CADMIUM	MG/L	30735901	<0.0005	<0.0005	NA	0.0057	0.0050	114
CHROMIUM	MG/L	30735902	<0.010	<0.010	NA	1.04	1.00	104
COPPER	MG/L	30735902	<0.010	<0.010	NA	1.02	1.00	102
MERCURY	MG/L	30735901	<0.0002	<0.0002	NA	0.0052	0.0050	104
NICKEL	MG/L	30735902	<0.020	<0.020	NA	1.00	1.00	100
LEAD	MG/L	30735901	<0.002	<0.002	NA	0.049	0.050	98
ANTIMONY	MG/L	30735902	<0.05	<0.05	NA	1.04	1.00	104
SELENIUM	MG/L	30793608	<0.005	<0.005	NA	0.044	0.050	88
THALLIUM	MG/L	30793608	<0.005	<0.005	NA	0.052	0.050	104
THALLIUM	MG/L	30793603	<0.005	<0.005	NA	0.048	0.050	96
ZINC	MG/L	30735902	<0.020	<0.020	NA	1.04	1.00	104

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

007101

## GCMS - RESULTS

ATI I.D. : 30735901

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/27/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/27/93
PROJECT NAME	: SPARTON TECHNOLOGIES	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW-15	DATE ANALYZED	: 08/05/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	5
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	24
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	61
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	94
BROMOFLUOROBENZENE (%)	95
TOLUENE-D8 (%)	96

007102





Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735901

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007103



Analytical Technologies, Inc.

## GCMS - RESULTS

ATI I.D. : 30735902

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/27/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/27/93
PROJECT NAME	: SPARTON TECHNOLOGIES	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW-41	DATE ANALYZED	: 08/07/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 2

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<20
BROMOMETHANE	<20
VINYL CHLORIDE	<2
CHLOROETHANE	<2
METHYLENE CHLORIDE	90
ACETONE	<20
CARBON DISULFIDE	<2
1,1-DICHLOROETHENE	83
1,1-DICHLOROETHANE	<2
1,2-DICHLOROETHENE (TOTAL)	<2
CHLOROFORM	<2
1,2-DICHLOROETHANE	<2
2-BUTANONE (MEK)	<20
1,1,1-TRICHLOROETHANE	110
CARBON TETRACHLORIDE	<2
VINYL ACETATE	<20
BROMODICHLOROMETHANE	<2
1,1,2,2-TETRACHLOROETHANE	<2
1,2-DICHLOROPROPANE	<2
TRANS-1,3-DICHLOROPROPENE	<2
TRICHLOROETHENE	380
DIBROMOCHLOROMETHANE	<2
1,1,2-TRICHLOROETHANE	<2
BENZENE	<2
CIS-1,3-DICHLOROPROPENE	<2
2-CHLOROETHYL VINYLETHER	<20
BROMOFORM	<10
2-HEXANONE (MBK)	<20
4-METHYL-2-PENTANONE (MIBK)	<20
TETRACHLOROETHENE	7
TOLUENE	<2
CHLOROBENZENE	<2
ETHYLBENZENE	<2
STYRENE	<2
TOTAL XYLENES	<2

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	94
BROMOFLUOROBENZENE (%)	93
TOLUENE-D8 (%)	98

007104



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735902

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007105

## GCMS - RESULTS

ATI I.D. : 30735903

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
 PROJECT # : (NONE)  
 PROJECT NAME : SPARTON TECHNOLOGIES  
 CLIENT I.D. : MW-36  
 SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/27/93  
 DATE RECEIVED : 07/27/93  
 DATE EXTRACTED : N/A  
 DATE ANALYZED : 08/05/93  
 UNITS : UG/L  
 DILUTION FACTOR : 1

---

COMPOUNDS	RESULTS
-----------	---------

---

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	4
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	96
BROMOFLUOROBENZENE (%)	96
TOLUENE-D8 (%)	91

007106



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735903

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007107



## GCMS - RESULTS

ATI I.D. : 30735904

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECHNOLOGIES  
CLIENT I.D. : MW-32  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/27/93  
DATE RECEIVED : 07/27/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/08/93  
UNITS : UG/L  
DILUTION FACTOR : 50

COMPOUNDS	RESULTS
CHLOROMETHANE	<500
BROMOMETHANE	<500
VINYL CHLORIDE	<50
CHLOROETHANE	<50
METHYLENE CHLORIDE	<250
ACETONE	<500
CARBON DISULFIDE	<50
1,1-DICHLOROETHENE	600
1,1-DICHLOROETHANE	<50
1,2-DICHLOROETHENE (TOTAL)	<50
CHLOROFORM	<50
1,2-DICHLOROETHANE	<50
2-BUTANONE (MEK)	<500
1,1,1-TRICHLOROETHANE	360
CARBON TETRACHLORIDE	<50
VINYL ACETATE	<500
BROMODICHLOROMETHANE	<50
1,1,2,2-TETRACHLOROETHANE	<50
1,2-DICHLOROPROPANE	<50
TRANS-1,3-DICHLOROPROPENE	<50
TRICHLOROETHENE	4300
DIBROMOCHLOROMETHANE	<50
1,1,2-TRICHLOROETHANE	<50
BENZENE	<50
CIS-1,3-DICHLOROPROPENE	<50
2-CHLOROETHYL VINYLETHER	<500
BROMOFORM	<250
2-HEXANONE (MBK)	<500
4-METHYL-2-PENTANONE (MIBK)	<500
TETRACHLOROETHENE	<50
TOLUENE	<50
CHLOROBENZENE	<50
ETHYLBENZENE	<50
STYRENE	<50
TOTAL XYLENES	<50

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	86
BROMOFLUOROBENZENE (%)	95
TOLUENE-D8 (%)	88

007108



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735904

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007109



Analytical Technologies, Inc.

# GCMS - RESULTS

ATI I.D. : 30735905

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECHNOLOGIES  
CLIENT I.D. : MW-60  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 07/27/93  
DATE RECEIVED : 07/27/93  
DATE EXTRACTED : N/A  
DATE ANALYZED : 08/05/93  
UNITS : UG/L  
DILUTION FACTOR : 1

## ----- COMPOUNDS RESULTS -----

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	5
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	95
BROMOFLUOROBENZENE (%)	99
TOLUENE-D8 (%)	92

007110





Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735905

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

**007111**



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 30735906

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/27/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/27/93
PROJECT NAME	: SPARTON TECHNOLOGIES	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW-61	DATE ANALYZED	: 08/05/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 2

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<20
BROMOMETHANE	<20
VINYL CHLORIDE	<2
CHLOROETHANE	<2
METHYLENE CHLORIDE	<10
ACETONE	<20
CARBON DISULFIDE	<2
1,1-DICHLOROETHENE	14
1,1-DICHLOROETHANE	<2
1,2-DICHLOROETHENE (TOTAL)	<2
CHLOROFORM	<2
1,2-DICHLOROETHANE	<2
2-BUTANONE (MEK)	<20
1,1,1-TRICHLOROETHANE	5
CARBON TETRACHLORIDE	<2
VINYL ACETATE	<20
BROMODICHLOROMETHANE	<2
1,1,2,2-TETRACHLOROETHANE	<2
1,2-DICHLOROPROPANE	<2
TRANS-1,3-DICHLOROPROPENE	<2
TRICHLOROETHENE	410
DIBROMOCHLOROMETHANE	<2
1,1,2-TRICHLOROETHANE	<2
BENZENE	<2
CIS-1,3-DICHLOROPROPENE	<2
2-CHLOROETHYL VINYLETHER	<20
BROMOFORM	<10
2-HEXANONE (MBK)	<20
4-METHYL-2-PENTANONE (MIBK)	<20
TETRACHLOROETHENE	3
TOLUENE	<2
CHLOROBENZENE	<2
ETHYLBENZENE	<2
STYRENE	<2
TOTAL XYLENES	<2

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	98
BROMOFLUOROBENZENE (%)	97
TOLUENE-D8 (%)	93

007112



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735906

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007113

## GCMS - RESULTS

ATI I.D. : 30735907

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/26/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/27/93
PROJECT NAME	: SPARTON TECHNOLOGIES	DATE EXTRACTED	: N/A
CLIENT I.D.	: TRIP BLANK	DATE ANALYZED	: 08/05/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLEETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	95
BROMOFLUOROBENZENE (%)	97
TOLUENE-D8 (%)	92

007114



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735907

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007115

## GCMS - RESULTS

ATI I.D. : 30735908

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	DATE SAMPLED	: 07/27/93
PROJECT #	: (NONE)	DATE RECEIVED	: 07/27/93
PROJECT NAME	: SPARTON TECHNOLOGIES	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW-44	DATE ANALYZED	: 08/08/93
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 1

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	89
BROMOFLUOROBENZENE (%)	101
TOLUENE-D8 (%)	103

007116



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735908

-----  
COMPOUNDS

-----  
RESULTS  
-----

NO ADDITIONAL COMPOUNDS

007117

## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	: NEW MEXICO ENVIRONMENTAL DEPT.	ATI I.D.	: 307359
PROJECT #	: (NONE)	DATE EXTRACTED	: 08/05/93
PROJECT NAME	: SPARTON TECHNOLOGIES	DATE ANALYZED	: 08/05/93
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
-----------	---------

CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	91
TOLUENE-D8 (%)	88

007118



Analytical**Technologies**, Inc.

## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECHNOLOGIES  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 307359  
DATE EXTRACTED : 08/07/93  
DATE ANALYZED : 08/07/93  
UNITS : UG/L  
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYLVINYLEETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	94
BROMOFLUOROBENZENE (%)	92
TOLUENE-D8 (%)	98

007119



Analytical Technologies, Inc.

## GCMS - RESULTS

## REAGENT BLANK

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.  
PROJECT # : (NONE)  
PROJECT NAME : SPARTON TECHNOLOGIES  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 307359  
DATE EXTRACTED : 08/08/93  
DATE ANALYZED : 08/08/93  
UNITS : UG/L  
DILUTION FACTOR : N/A

COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON TETRACHLORIDE	<1
VINYL ACETATE	<10
BROMODICHLOROMETHANE	<1
1,1,2,2-TETRACHLOROETHANE	<1
1,2-DICHLOROPROPANE	<1
TRANS-1,3-DICHLOROPROPENE	<1
TRICHLOROETHENE	<1
DIBROMOCHLOROMETHANE	<1
1,1,2-TRICHLOROETHANE	<1
BENZENE	<1
CIS-1,3-DICHLOROPROPENE	<1
2-CHLOROETHYL VINYLETHER	<10
BROMOFORM	<5
2-HEXANONE (MBK)	<10
4-METHYL-2-PENTANONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1

## SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	88
BROMOFLUOROBENZENE (%)	100
TOLUENE-D8 (%)	99

007120



Analytical **Technologies**, Inc.

QUALITY CONTROL DATA

ATI I.D. : 307359

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)

PROJECT NAME : SPARTON TECHNOLOGIES

REF I.D. : 30735703

DATE ANALYZED : 08/05/93

SAMPLE MATRIX : AQUEOUS

UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP. SPIKED		RPD
	RESULT	SPIKED			SAMPLE	REC.	
1,1-DICHLOROETHENE	<1	50	47	94	41	82	14
TRICHLOROETHENE	33	50	79	92	79	92	0
CHLOROBENZENE	<1	50	48	96	48	96	0
TOLUENE	<1	50	44	88	42	84	5
BENZENE	<1	50	46	92	45	90	2

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

007121



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 307359

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)

DATE ANALYZED : 08/09/93

PROJECT NAME : SPARTON TECHNOLOGIES

SAMPLE MATRIX : AQUEOUS

REF I.D. : 30736007

UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
					% SPIKED SAMPLE	% REC.	
1,1-DICHLOROETHENE	3	50	55	104	51	96	8
TRICHLOROETHENE	56	50	106	100	101	90	5
CHLOROBENZENE	<1	50	48	96	49	98	2
TOLUENE	<1	50	50	100	51	102	2
BENZENE	<1	50	51	102	51	102	0

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

007122



Analytical Technologies, Inc., Albuquerque, NM  
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

# CHAIN OF CUSTODY

DATE: 7/27/93 PAGE 1 OF 1

ATI LAB I.D.

307359

PROJECT MANAGER: Steve Alexander

COMPANY: NMED

ADDRESS:

PHONE:

FAX:

BILL TO: HRMB

COMPANY: 525 Camino de los Marquez

ADDRESS: Santa Fe NM 87502

## ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	BTXE/MTBE (8020)	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1) 502.2 Reg. & Unreg.	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal	The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)	NUMBER OF CONTAINERS
MW-15	7/27		H <sub>2</sub> O	01											2						1			3
MW-41	7/27		"	02											2						1			3
MW-36	7/27		"	03											2						1			3
MW-32	7/27		"	04											2						1			3
MW-60	7/27		"	05											2						1			3
MW-61	7/27		H <sub>2</sub> O	06											2						1			3
Tryp Dlk	7/27		"	07										1										1
MW-44	7/27		H <sub>2</sub> O	08											2						1			3

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.: <u>93-01</u>	NO. CONTAINERS: <u>8</u>	CUSTODY SEALS: <u>Y/N/NA</u>	RECEIVED INTACT: <u>Y</u>
PROJ. NAME: <u>Spurlock Technologies</u>	RECEIVED COLD: <u>Y</u>		
P.O. NO.:			
SHIPPED VIA:			

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒ 12 WEEK

Comments:

SAMPLED & RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Signature: <u>Steve Alexander</u>	Time: <u>15:16</u>	Signature:	Time:	Signature:	Time:
Printed Name: <u>Steve Alexander</u>	Date: <u>7/27/93</u>	Printed Name:	Date:	Printed Name:	Date:
Company: <u>HRMB</u>	Phone: <u>827-4313</u>	Company:		Company:	
RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: (LAB) 3.	
Signature:	Time:	Signature:	Time:	Signature: <u>John Dettre</u>	Time: <u>1516</u>
Printed Name:	Date:	Printed Name:	Date:	Printed Name: <u>John Dettre</u>	Date: <u>7/27/93</u>
Company:		Company:		Analytical Technologies, Inc.	

PLEASE FILL THIS FORM IN COMPLETELY. SHADED AREAS ARE FOR LAB USE ONLY.



## Chain of Custody

DATE 7/27/93 PAGE 1 OF 1

NETWORK PROJECT MANAGER: BETH PROFFITT					ANALYSIS REQUEST																					
COMPANY: <b>Analytical Technologies, Inc.</b> ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107					TOX	TOC	ORGANIC LEAD	SULFIDE	SURFACTANTS (MBAS)	632/632 MOD	619/619 MOD	610/8310	8240 (TCCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	13 Priority Pollutant Metals	NACE	ASBESTOS	BOD	TOTAL COLIFORM	FECAL COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	AIR - O <sub>2</sub> , CO <sub>2</sub> , METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS
CLIENT PROJECT MANAGER:	SAMPLE ID	DATE	TIME	MATRIX	LAB ID																					
	307359-1	7/27/93		ND	1																					
	-2				2																					
	-3				3																					
	-4				4																					
	-5				5																					
	-6				6																					
	-7 TB	7/26/93			7																					
	-8 (TB)	7/27/93			8																					

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJECT NUMBER: 307359	TOTAL NUMBER OF CONTAINERS 22	SAN DIEGO	Signature: [Signature]	Signature: [Signature]	Time: 1730	Signature: [Signature]	Time: [Time]		
PROJECT NAME: NMED	CHAIN OF CUSTODY SEALS *Y	FT. COLLINS	Printed Name: [Name]	Printed Name: [Name]	Date: 7/27/93	Printed Name: [Name]	Date: [Date]		
QC LEVEL: STD IV	INTACT? Y	RENTON	Analytical Technologies, Inc.	Company: [Company]					
QC REQUIRED: MS MSD BLANK	RECEIVED GOOD COND./COLD Y	PENSACOLA	Albuquerque						
TAT: STANDARD RUSHI	LAB NUMBER 307359	PHOENIX							
		BARRINGER							
		FIBERQUANT							
DUE DATE: 8/10/93		RECEIVED BY: (LAB) 1.		RECEIVED BY: (LAB) 2.					
RUSH SURCHARGE: [Blank]		Signature: [Signature]		Signature: [Signature]					
CLIENT DISCOUNT: 10 %		Printed Name: [Name]		Printed Name: [Name]					
* Seals on VOA's only		Company: [Company]		Company: [Company]					



Analytical Technologies, Inc.

Received 8-24-93  
3 Q 1993 CME 12 wells.  
mw-61, 60, 36, 44, 32, 41, 15  
for m8240 + 13 PP metals  
and State Well mw-15 for  
CME parameters + Annual Parameter

2709-D Pan American Freeway, NE Albuquerque, NM 87107  
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 307360

August 19, 1993

Sparton Technology, Inc.  
4901 Rockaway Blvd., SE  
Rio Rancho, NM 87124-4469

Project Name/Number: CRFGW MON 3QNMED CME

Attention: John Wakefield

On 07/27/93, Analytical Technologies, Inc. received a request to analyze aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

D indicates the compound was analyzed at a greater dilution.

Total Organic Halide and Total Organic Carbon analyses were performed by ATI, Fort Collins.

All other analyses were performed by ATI, Phoenix.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Adela M. Cantu  
Senior Organic Chemist

Letitia Krakowski  
Acting Laboratory Manager

LAK:jd

Enclosure

ACCESSION #: 307360

<u>PARAMETER</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>	<u>ANALYST</u>
Chloride	325.2	07/29/93	C. Warren
Electrical Conductivity	120.1	07/29/93	M. Jarman
Nitrate	353.2	07/28/93	M. Rivera
pH	150.1	08/04/93	T. Kehler
Sulfate	375.2	07/29/93	C. Warren
Total Kjeldahl Nitrogen	351.2	08/11/93	N. Milan
Silver	200.7	08/04/93	J. Hrubant
Arsenic	206.2	07/30/93	K. Jagger
Boron	200.7	07/30/93	J. Hrubant
Beryllium	200.7	08/04/93	J. Hrubant
Cadmium	213.2	08/02/93	K. Jagger
Chromium, Total	200.7	08/04/93	J. Hrubant
Chromium, Hexavalent	7196	07/28/93	V. Nielsen
Copper	200.7	08/04/93	J. Hrubant
Mercury	245.1	07/30/93	P. Van Cooney
Manganese	200.7	08/04/93	J. Hrubant
Sodium	200.7	07/30/93	J. Hrubant
Nickel	200.7	08/04/93	J. Hrubant
Lead	239.2	07/29/93	K. Jagger
Antimony	200.7	08/04/93	J. Hrubant
Selenium	270.2	08/02/93	M. Wilson
Thallium	279.2	08/03/93	K. Jagger
Zinc	200.7	08/04/93	J. Hrubant
Volatile Organics (1)	8240	08/08/93	M. Bergenheier
Volatile Organics (2-6)	8240	08/07/93	M. Bergenheier
Volatile Organics (7)	8240	08/09/93	M. Bergenheier
Total Organic Carbon	415.2	08/06/93	S. Hall
Total Organic Halide	9020M	08/03/93	S. Hall

Reference(s): Methods for Chemical Analysis of Water and Wastes,  
March, 1983 EPA-600 4-79-020.

Test Methods for Evaluating Solid Waste,  
Physical/Chemical Methods, (SW 846, 3rd ed.)





Analytical Technologies, Inc.

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MON

DATE RECEIVED : 07/27/93

REPORT DATE : 08/19/93

ATI I.D. : 307360

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	MW-61	AQUEOUS	07/27/93
02	MW-60	AQUEOUS	07/27/93
03	MW-36	AQUEOUS	07/27/93
04	MW-44	AQUEOUS	07/27/93
05	MW-32	AQUEOUS	07/27/93
06	MW-41	AQUEOUS	07/27/93
07	MW-15	AQUEOUS	07/27/93

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	7

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

007127



Analytical Technologies, Inc.

# GENERAL CHEMISTRY RESULTS

ATI I.D. : 307360

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MON

DATE RECEIVED : 07/27/93

REPORT DATE : 08/19/93

PARAMETER	UNITS	07
CHLORIDE (EPA 325.2)	MG/L	29
CHROMIUM HEXAVALENT EPA 7196	MG/L	<0.02
CONDUCTIVITY, (UMHOS/CM)		650
NITRATE AS N (EPA 353.2)	MG/L	4.3
PH (EPA 150.1)	UNITS	8.0
SULFATE (EPA 375.2)	MG/L	89
KJELDAHL NITROGEN (351.2)	MG/L	<0.2
TOTAL ORGANIC CARBON	MG/L	1
TOTAL ORGANIC HALIDE	UG/L	70

007128



## GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MON

ATI I.D. : 307360

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CHLORIDE	MG/L	30792601	150	150	0	310	150	107
CHROMIUM HEXAVALENT	MG/L	30736007	<0.02	<0.02	NA	0.16	0.15	107
CONDUCTIVITY(UMHOS/CM)		30796911	4210	4230	0.5	NA	NA	NA
NITRATE AS NITROGEN	MG/L	30793601	0.06	0.06	0	2.09	2.00	102
PH	UNITS	30796701	8.6	8.6	0	NA	NA	NA
SULFATE	MG/L	30792601	50	51	2	100	50	100
TOTAL KJELDAHL NITROGE	MG/L	30736201	<0.2	<0.2	NA	1.9	2.0	95
TOTAL ORGANIC CARBON	MG/L	30736007	1	1	0	NA	NA	NA
TOTAL ORGANIC HALIDE	UG/L	930717102	790	NA	NA	4900	4000	103

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

007129



Analytical Technologies, Inc.

# METALS RESULTS

ATI I.D. : 307360

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MON

DATE RECEIVED : 07/27/93

REPORT DATE : 08/19/93

PARAMETER	UNITS	01	02	03	04	05
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
BERYLLIUM (EPA 200.7/6010)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010	0.052	<0.010	<0.010
COPPER (EPA 200.7/6010)	MG/L	<0.010	0.012	<0.010	<0.010	<0.010
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
NICKEL (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	0.038
LEAD (EPA 239.2/7421)	MG/L	<0.002	<0.002	<0.002	<0.002	<0.002
ANTIMONY (EPA 200.7/6010)	MG/L	<0.05	<0.05	<0.05	<0.05	<0.05
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
THALLIUM (EPA 279.2/7841)	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.020	<0.020	<0.020	<0.020	<0.020

007130



Analytical Technologies, Inc.

# METALS RESULTS

ATI I.D. : 307360

CLIENT : SPARTON TECH., INC.

DATE RECEIVED : 07/27/93

PROJECT # : 3Q NMED CME

PROJECT NAME : CRFGW MON

REPORT DATE : 08/19/93

PARAMETER	UNITS	06	07
SILVER (EPA 200.7/6010)	MG/L	<0.010	<0.010
ARSENIC (EPA 206.2/7060)	MG/L	<0.005	0.008
BORON (EPA 200.7/6010)	MG/L	-	0.13
BERYLLIUM (EPA 200.7/6010)	MG/L	<0.005	<0.005
CADMIUM (EPA 213.2/7131)	MG/L	<0.0005	<0.0005
CHROMIUM (EPA 200.7/6010)	MG/L	<0.010	<0.010
TRIVALENT CHROMIUM (EPA 7196)	MG/L	-	<0.02
COPPER (EPA 200.7/6010)	MG/L	<0.010	<0.010
MERCURY (EPA 245.1/7470)	MG/L	<0.0002	<0.0002
MANGANESE (EPA 200.7/6010)	MG/L	-	<0.010
SODIUM (EPA 200.7/6010)	MG/L	-	51.1
NICKEL (EPA 200.7/6010)	MG/L	<0.020	<0.020
LEAD (EPA 239.2/7421)	MG/L	0.003	<0.002
ANTIMONY (EPA 200.7/6010)	MG/L	<0.05	<0.05
SELENIUM (EPA 270.2/7740)	MG/L	<0.005	<0.005
THALLIUM (EPA 279.2/7841)	MG/L	<0.005	<0.005
ZINC (EPA 200.7/6010)	MG/L	<0.020	<0.020

007131



# METALS - QUALITY CONTROL

CLIENT : SPARTON TECH., INC.  
PROJECT # : 3Q NMED CME  
PROJECT NAME : CRFGW MON

ATI I.D. : 307360

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER	MG/L	30736002	<0.010	<0.010	NA	0.462	0.500	92
SILVER	MG/L	30736005	<0.010	<0.010	NA	0.460	0.500	92
ARSENIC	MG/L	30736004	<0.005	<0.005	NA	0.058	0.050	116
ARSENIC	MG/L	30736007	0.008	0.009	12	0.061	0.050	106
BORON	MG/L	30791301	<0.10	<0.10	NA	1.02	1.00	102
BERYLLIUM	MG/L	30736002	<0.005	<0.005	NA	0.464	0.500	93
BERYLLIUM	MG/L	30736005	<0.005	<0.005	NA	0.461	0.500	92
CADMIUM	MG/L	30736004	<0.0005	<0.0005	NA	0.0055	0.0050	110
CADMIUM	MG/L	30736007	<0.0005	<0.0005	NA	0.0050	0.0050	100
CHROMIUM	MG/L	30736002	<0.010	<0.010	NA	0.989	1.00	99
CHROMIUM	MG/L	30736005	<0.010	<0.010	NA	0.985	1.00	98
COPPER	MG/L	30736002	0.012	<0.010	NA	0.478	0.500	93
COPPER	MG/L	30736005	<0.010	<0.010	NA	0.480	0.500	96
MERCURY	MG/L	30735901	<0.0002	<0.0002	NA	0.0052	0.0050	104
MERCURY	MG/L	30736003	<0.0002	<0.0002	NA	0.0049	0.0050	98
MANGANESE	MG/L	30849902	2.13	2.15	0.9	3.09	1.00	96
SODIUM	MG/L	30791301	23.7	23.7	0	75.3	50.0	103
NICKEL	MG/L	30736002	<0.020	<0.020	NA	0.970	1.00	97
NICKEL	MG/L	30736005	0.038	0.033	14	1.01	1.00	97
LEAD	MG/L	30736004	<0.002	<0.002	NA	0.051	0.050	102
LEAD	MG/L	30736007	<0.002	<0.002	NA	0.051	0.050	102
ANTIMONY	MG/L	30736002	<0.05	<0.05	NA	1.02	1.00	102
ANTIMONY	MG/L	30736005	<0.05	<0.05	NA	1.01	1.00	101
SELENIUM	MG/L	30736004	<0.005	<0.005	NA	0.048	0.050	96
SELENIUM	MG/L	30736007	<0.005	<0.005	NA	0.049	0.050	98
THALLIUM	MG/L	30736004	<0.005	<0.005	NA	0.052	0.050	104
THALLIUM	MG/L	30736007	<0.005	<0.005	NA	0.054	0.050	108
ZINC	MG/L	30736002	<0.020	<0.020	NA	0.506	0.500	101
ZINC	MG/L	30736005	<0.020	<0.020	NA	0.500	0.500	100

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

007132