

State of New Mexico 'IRONMENT DEPARTMEN'. Alle

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

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

> 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,

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.

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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

Senior Organic Chemist

Idela M Canty

Letitia Krakowski

Acting Laboratory Manager

LAK:jd

Enclosure

Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141



CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

DATE RECEIVED: 07/26/93

PROJECT #

: (NONE)

PROJECT NAME : SPARTON TECH ., CME

REPORT DATE

: 08/13/93

ATI I.D. : 307356

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
	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.



METALS RESULTS

ATI I.D. : 307356

CLIENT: NEW MEXICO ENVIRONMENTAL DEPT. DATE RECEIVED: 07/26/93

PROJECT # : (NONE)

PROJECT NAME : SPARTÓN TECH., CME REPORT DATE : 08/13/93

TROOPER THE TOTAL TEST TO	O. III		•		• (0/13/93
PARAMETER	UNITS	01 _{r/} -5-	0.2 _p /\-ch	03,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	04 _{ma} 1	05 //6 (2)
SILVER (EPA 200.7/6010) ARSENIC (EPA 206.2/7060) BERYLLIUM (EPA 200.7/6010) CADMIUM (EPA 213.2/7131) CHROMIUM (EPA 200.7/6010) COPPER (EPA 200.7/6010) MERCURY (EPA 245.1/7470) NICKEL (EPA 200.7/6010) LEAD (EPA 239.2/7421)	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	<0.010 <0.005 <0.005 <0.0005 0.130 <0.010 <0.0002 <0.020 <0.002	<0.010 <0.005 <0.005 0.0017 0.438 <0.010 <0.0002 <0.020 <0.002	<0.010 0.005 <0.005 <0.0005 0.114 <0.010 <0.0002 <0.020 0.004	<0.010 <0.005 <0.005 <0.0005 0.159 <0.010 <0.0002 <0.020 <0.002	<0.010 <0.005 <0.005 <0.0005 <0.010 <0.010 <0.0002 <0.020 <0.002
ANTIMONY (EPA 200.7/6010) SELENIUM (EPA 270.2/7740)	MG/L MG/L	<0.05	<0.05	<0.05	<0.005	<0.05
THALLIUM (EPA 279.2/7841) ZINC (EPA 200.7/6010)	MG/L MG/L	<0.005 <0.020	<0.005 <0.020	<0.005 <0.020	<0.005 <0.020	<0.005 <0.020



METALS - QUALITY CONTROL

: NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)
PROJECT NAME : SPARTON TECH., CME ATI I.D. : 307356

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

Average Result

Spike Concentration RPD (Relative Percent Difference) = (Sample Result - Duplicate Result) ---- X 100



1,2-DICHLOROETHANE-D4 (%)

BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

GCMS - RESULTS

ATI I.D. : 30735601

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 #55
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	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	
	••

90

99

97

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735601

COMPOUNDS

RESULTS



BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

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

<10 CHLOROMETHANE BROMOMETHANE <10 <1 VINYL CHLORIDE <1 CHLOROETHANE METHYLENE CHLORIDE <5 <10 ACETONE CARBON DISULFIDE <1 7 1,1-DICHLOROETHENE <1 1,1-DICHLOROETHANE 1,2-DICHLOROETHENE (TOTAL) <1 <1 CHLOROFORM 1,2-DICHLOROETHANE <1 2-BUTANONE (MEK) <10 <1 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE <1 <10 VINYL ACETATE BROMODICHLOROMETHANE <1 1,1,2,2-TETRACHLOROETHANE <1 <1 1,2-DICHLOROPROPANE <1 TRANS-1,3-DICHLOROPROPENE 320 D TRICHLOROETHENE DIBROMOCHLOROMETHANE <1 <1 1,1,2-TRICHLOROETHANE <1 BENZENE CIS-1,3-DICHLOROPROPENE <1 2-CHLOROETHYLVINYLETHER <10 BROMOFORM <5 <10 2-HEXANONE (MBK) <10 4-METHYL-2-PENTANONE (MIBK) TETRACHLOROETHENE <1 <1 TOLUENE CHLOROBENZENE <1 ETHYLBENZENE <1 STYRENE <1 TOTAL XYLENES <1 SURROGATE PERCENT RECOVERIES 1,2-DICHLOROETHANE-D4 (%) 92

100

92



Analytical **Technologies**, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735602

RESULTS



GCMS - RESULTS

ATI I.D. : 30735603

TEST:	VOLATILE	ORGANICS	(EPA	8240)	
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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 BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHENE 1,2-DICHLOROETHENE 1,2-DICHLOROETHENE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,2,2-TETRACHLOROETHANE 1,2,2-TETRACHLOROETHANE 1,2-DICHLOROPROPANE TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 2-CHLOROETHENE DIBROMOCHLOROMETHANE 80005CRM 2-HEXANONE (MBK) 4-METHYL-2-PENTANONE (MIBK) TETRACHLOROETHENE TOLUENE CHLOROBENZENE ETHYLBENZENE STYRENE TOTAL XYLENES	<10 <10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%) BROMOFLUOROBENZENE (%) TOLUENE-D8 (%)	97 91 007085



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735603

COMPOUNDS RESULTS



BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

GCMS - RESULTS

ATI I.D.: 30735604

TEST: VOLATILE ORGANICS (EPA 8240)

: NEW MEXICO ENVIRONMENTAL DEPT. DATE SAMPLED : 07/26/93 CLIENT DATE RECEIVED : (NONE) PROJECT # : 07/26/93 PROJECT NAME : SPARTON TECH ., CME DATE EXTRACTED : N/A CLIENT I.D. : MW #58 DATE ANALYZED : 08/04/93 SAMPLE MATRIX : AQUEOUS UNITS : UG/L DILUTION FACTOR:

RESULTS CHLOROMETHANE <10 <10 BROMOMETHANE <1 VINYL CHLORIDE <1 CHLOROETHANE METHYLENE CHLORIDE <5 <10 ACETONE CARBON DISULFIDE <1 <1 1,1-DICHLOROETHENE 1,1-DICHLOROETHANE <1 1,2-DICHLOROETHENE (TOTAL) <1 CHLOROFORM <1 1,2-DICHLOROETHANE <1 <10 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE <1 CARBON TETRACHLORIDE <1 VINYL ACETATE <10 <1 BROMODICHLOROMETHANE 1,1,2,2-TETRACHLOROETHANE <1 1,2-DICHLOROPROPANE <1 <1 TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE 62 DIBROMOCHLOROMETHANE <1 1,1,2-TRICHLOROETHANE <1 <1 BENZENE 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 90 1,2-DICHLOROETHANE-D4 (%)

98

97



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735604

COMPOUNDS

RESULTS



BROMOFLUOROBENZENE (%)
TOLUENE-D8 (%)

GCMS - RESULTS

ATI I.D. : 30735605

TEST: VOLATILE ORGANICS (EPA 8240)

CLIENT	:	NEW MEXICO ENVIRONMENTAL I	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-CHLOROETHYLVINYLETHER	<10	
BROMOFORM	<5	
2-HEXANONE (MBK)	<10	
4-METHYL-2-PENTÁNONE (MIBK)	<10	
TETRACHLOROETHENE	<1	
TOLUENE	<1	
CHLOROBENZENE	<1	
ETHYLBENZENE	<1	
STYRENE	<1	
TOTAL XYLENES	<1	
SURROGATE PERCENT RECOVERIES		
1,2-DICHLOROETHANE-D4 (%)	90	
PROMORI MODORENGENE (%)	100	

100

96

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735605

COMPOUNDS RESULTS



GCMS - RESULTS

ATI I.D.: 30735606

DILUTION FACTOR :

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. : TRIP BLANK DATE ANALYZED : 08/04/93
SAMPLE MATRIX : AQUEOUS UNITS : UG/L

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

1,2-DICHLOROETHANE-D4 (%)	90	007091
BROMOFLUOROBENZENE (%)	95	- 1 001
TOLUENE-D8 (%)	90	



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735606

COMPOUNDS RESULTS



GCMS - RESULTS

REAGENT BLANK

TEST: VOLATILE ORGANICS (EPA 8240) ATI I.D. : 307356 : NEW MEXICO ENVIRONMENTAL DEPT. DATE EXTRACTED : 08/04/93 CLIENT PROJECT # : (NONE) DATE ANALYZED : 08/04/93 PROJECT NAME : SPARTÓN TECH ., CME UNITS : UG/L CLIENT I.D. : REAGENT BLANK DILUTION FACTOR: N/A COMPOUNDS RESULTS <10 CHLOROMETHANE <10 BROMOMETHANE <1 VINYL CHLORIDE <1 CHLOROETHANE <5 METHYLENE CHLORIDE <10 ACETONE <1 CARBON DISULFIDE <1 1,1-DICHLOROETHENE 1,1-DICHLOROETHANE <1 1,2-DICHLOROETHENE (TOTAL) <1 <1 CHLOROFORM <1 1,2-DICHLOROETHANE 2-BUTANONE (MEK) <10 1,1,1-TRICHLOROETHANE <1 CARBON TETRACHLORIDE <1 <10 VINYL ACETATE <1 BROMODICHLOROMETHANE <1 1,1,2,2-TETRACHLOROETHANE 1,2-DICHLOROPROPANE <1 TRANS-1,3-DICHLOROPROPENE <1 <1 TRICHLOROETHENE <1 DIBROMOCHLOROMETHANE 1,1,2-TRICHLORQETHANE <1 BENZENE <1 CIS-1,3-DICHLOROPROPENE <1 <10 2-CHLOROETHYLVINYLETHER <5 BROMOFORM <10 2-HEXANONE (MBK) 4-METHYL-2-PENTANONE (MIBK) <10 <1 TETRACHLOROETHENE <1 TOLUENE <1 CHLOROBENZENE <1 ETHYLBENZENE <1 STYRENE TOTAL XYLENES <1 SURROGATE PERCENT RECOVERIES 91 1,2-DICHLOROETHANE-D4 (%) 93 BROMOFLUOROBENZENE (%) 91 TOLUENE-D8 (%)



QUALITY CONTROL DATA

ATI I.D. : 307356

TEST: VOLATILE ORGANICS (EPA 8240)

CLIENT

: NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT #

: (NONE)

PROJECT NAME : SPARTON TECH ., CME

REF I.D.

: 30735603

DATE ANALYZED: 08/04/93

SAMPLE MATRIX : AQUEOUS

UNITS

: UG/L

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

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% Recovery = (Spike Sample Result - Sample Result)
            Spike Concentration
RPD (Relative % Difference) = (Spiked Sample - Duplicate Spike)
                                Result Sample Result
                                                              X 100
                                 Average of Spiked Sample
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Analytical **Technologies**, Inc., Albuquerque, NM San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY DATE: 7/26/17 PAGE OF

ATI LAB I.D. 307356

PROJECT MANAGER: Steve Alexander	ANALYSIS REQUEST
COMPANY: NONED ADDRESS: PHONE: FAX: BILL TO: Hazardous Radianative Marterials COMPANY: 575 Camino de los Marques ADDRESS: Santa Fa MM 87502	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. 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 - Federal
SAMPLE ID DATE TIME MATRIX LABID	SDW
MU #56 0 7/26 Water 07 10 #56 0 7/26 Water 07 10 #53 7 7/26 11 04 14 58 0 7/26 11 04 14 562 57 7/26 Water 05 15 p Blank 7/26/93 " Op	Petroleum (MOD 801) (MOD 8
PROJECT INFORMATION SAMPLE RECEIPT PROJ. NO.: SAMPLE RECEIPT NO. CONTAINERS PROJ. NAME: SOCIATOR TELL CITY STATE O. NO.: 29 HOLL 108 D RECEIVED INTACT VINNERS INTERCEIPT NO. CONTAINERS Y / N / NA RECEIVED INTACT Y NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO. NO.: 31 HOLL 108 D RECEIVED INTACT Y NO. CONTAINERS Y / N / NA NO.	SAMPLED & RELINQUISHED BY: 1. RELINQUISHED BY: 2. RELINQUISHED BY: 3. Signature: Time: Signature: Time: Signature: Time: Stan Aluban Date: Printed Name: Date: Printed Name: Date: Printed Name: Date: Company: Phone: Company: Phone:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS RUSH) 24hr 48hr 72hr 1 WEEK (NORMAL) 2 WEEK Comments:	Signature: Time: Signature: Time: Signature: Time: Printed Name: Date: Printed Name: Date: Printed Name Date: 7
	Company: Company: Analytical Technologies, Inc.

Chain of Custody

NETWORK PROJECT MANAGER: BETH PROFFITT						Ϋ́,					 -		1	Al	VAL.	YSIS	RE	QUE	ST				v 145	, g %			
COMPANY: Analytical Technologies, Inc. ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107					IC LEAD	SUBFACTANTS (MBAS)		632/632 MOD	619/619 MOD			8240 (TCLP 1311) ZHE	Diesel/Gasoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (62//8240)	History Hille tout Metals	901			COLIFORM	COLIFORM	GBOSS ALPHA/BETA	RADIUM 226/228		AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020)	NUMBER OF CONTAINERS		
		 	·		×	2	ORGANIC SHI FIDE	JEFA (2/632	619/619 N			84 F	esel/G	platile	7,4	NACE	3	800	TOTAL	FECAL	000		2	H/Die	1 N
SAMPLEID	DATE	TIME	MATRIX	LAB ID	TOX	티	Ö 0	ાં		8 3	<u>ت</u> م			82	ā	×	$\stackrel{\cdot}{\perp}$	Ž	4	ĕ	۲	<u> </u>	ë	<u> </u>		\ \	(50,000)
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PROJECT INFORMATION PROJECT NUMBER: 301,356		TOTAL	SAMI NUMBER OI	PLE RECI			10		SAMPL SAN DI	EGO	7			BELI		7		Time:				RELIN ature:	QUIS	HED			
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QC LEVEL: STD. IV		INTACT	7?				Y	7	PENSA			+	14	CPT)ري	410	Date 7	126	9-					_		
OC/REQUIRED MS MSD BLANK RECEIVED GOOD COND.COL		D		Y							alytical	Tech	nolog	ies, la	nc.			Com	pany	:							
TAY: STANDARD) RUSH! LAB NUMBER 30			13	54	0		PHOE			X		RECE		BY:	LAB	1773	1.		F	ECE	IVED	BY: (LAB)		2		
					7-3		BARRII FIBER			-1-		nature				Time:	- P-100	***		ature:	nn) /	Tig	995	9		
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RUSH SURCHARGE:		υ.	0, 21	ra-)(ام								771)	HIEU N	arne,			Date:				od Na 2SE (ime; UA	V	idal	107/	27/93
CLIENT DISCOUNT:	_%											-	Co	mpany	<i>i</i> :						_	pany		A=			



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

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

Senior Organic Chemist

dela M Canta-

Letitia Krakowski

Acting Laboratory Manager

LAK:jd

Enclosure

Analytical **Technologies**, Inc.

CLIENT : SPARTON TECH., INC.

DATE RECEIVED: 07/26/93

PROJECT # : 3Q NMED CME

PROJECT NAME : CRFGW MONITORING

REPORT DATE : 08/13/93

ATI I.D. : 307357

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



ACCESSION #: 307357

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

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



METALS RESULTS

ATI I.D. : 307357

CLIENT : SPARTON TECH., INC. PROJECT # : 3Q NMED CME DATE RECEIVED: 07/26/93

PROJECT NAME : CRFGW MONITORING REPORT DATE : 08/13/93

PRODUCT MAID : CRIGH MONITORI	140		•	CDI OICI DI		0, 13, 33
PARAMETER	UNITS	01	02	03	04	05
SILVER (EPA 200.7/6010) ARSENIC (EPA 206.2/7060) BERYLLIUM (EPA 200.7/6010) CADMIUM (EPA 213.2/7131) CHROMIUM (EPA 200.7/6010) COPPER (EPA 200.7/6010) MERCURY (EPA 245.1/7470) NICKEL (EPA 200.7/6010)	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
	MG/L	<0.005	<0.005	<0.005	0.006	<0.005
	MG/L	<0.005	<0.005	<0.005	<0.005	<0.005
	MG/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	MG/L	0.421	0.129	0.109	0.165	<0.010
	MG/L	<0.010	<0.010	<0.010	<0.010	<0.010
	MG/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	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



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 F	RPD	SPIKED SAMPLE		% REC
SILVER ARSENIC BERYLLIUM CADMIUM CHROMIUM COPPER MERCURY NICKEL LEAD ANTIMONY SELENIUM THALLIUM ZINC	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	30735701 30735701 30735701 30735701 30735701 30735701 30735701 30735701 30735701 30735701 30735701 30735701	<0.005 <0.005 <0.0005 0.421 <0.010 <0.0002 <0.020 <0.002 <0.05 0.014 <0.005	<0.010 <0.005 <0.005 <0.0005 0.421 <0.010 <0.0002 <0.020 <0.020 <0.005 0.013 <0.005 <0.020	NA NA NA O NA NA NA NA NA NA NA NA NA	0.965 0.054 0.924 0.0054 1.38 0.980 0.0051 0.996 0.050 0.97 MSA 0.051 1.05	1.00 0.050 1.00 0.0050 1.00 0.0050 1.00 0.050 1.00 CC= 0.050 1.00	96 108 92 108 96 98 102 100 97 .99 102 105

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

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735701



1,2-DICHLOROETHANE-D4 (%)

BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

· · GCMS - RESULTS

ATI I.D. : 30735701

TEST : VOLATILE ORGANICS (EPA 8240)

CLIENT	:	SPARTON TECH., INC.		SAMPLED		
PROJECT #	:	3Q NMED CME	DATE	RECEIVED	:	07/26/93
PROJECT NAME	:	CRFGW MONITORING		EXTRACTED		
CLIENT I.D.	:	MW-56	DATE	ANALYZED		
SAMPLE MATRIX	:	AQUEOUS	UNITS	S	:	UG/L
			DILU	TION 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-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	

90

98

97



GCMS - RESULTS

ATI I.D. : 30735702

TEST: VOLATILE ORGANICS (EPA 8240)

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	PECIT.TC
CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHENE 1,1-DICHLOROETHENE 1,2-DICHLOROETHENE (TOTAL) CHLOROFORM 1,2-DICHLOROETHANE 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,1,2,2-TETRACHLOROETHANE 1,2,2-TETRACHLOROETHANE 1,1,2-DICHLOROPROPANE TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE BENZENE CIS-1,3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM	<10 <10 <1 <1 <1 <5 <10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1

<1

<1

SURROGATE PERCENT RECOVERIES

ETHYLBENZENE

TOTAL XYLENES

STYRENE

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

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

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735702



BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

- 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 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-TRICHLOROÉTHANE	<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-PENTÁNONE (MIBK)	<10	
TETRACHLOROETHENE	<1	
TOLUENE	<1	
CHLOROBENZENE	<1	
ETHYLBENZENE	<1	
STYRENE	<1	
TOTAL XYLENES	<1	
SURROGATE PERCENT RECOVERIES		
1,2-DICHLOROETHANE-D4 (%)	99 -	

98

94



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

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D.: 30735703



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

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735704



BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

GCMS - RESULTS

ATI I.D.: 30735704

007069

98

98

TEST: VOLATILE ORGANICS (EPA 8240)

CLIENT : SPARTON TECH., INC.

PROJECT # : 3Q NMED CME DATE RECEIVED : 07/26/93

PROJECT NAME : CRFGW MONITORING DATE EXTRACTED : N/A

CLIENT I.D. : MW-58 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	<1	
1,1-DICHLOROETHANE	<1	
1,2-DICHLOROETHENE (TOTAL)	<1	
CHLOROFORM	<1	
1,2-DICHLOROETHANE	<1	
2-BUTANONE (MEK)	<10	
1,1,1-TRICHLOROÉTHANE	<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-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	
DDOMORT HODODENZENE (%)	0.0	0070co

	• ••	NDS (SEMI-QUANTITATED)
TEST : VOLATILE ORGANIC	CS (EPA 8240)	

ATI I.D. : 30735705

COMPOUNDS

RESULTS



ATI I.D.: 30735705

TEST: VOLATILE ORGANICS (EPA 8240)

: 07/26/93 : SPARTON TECH., INC. DATE SAMPLED : 3Q NMED CME DATE RECEIVED : 07/26/93 PROJECT # DATE EXTRACTED : N/A PROJECT NAME : CRFGW MONITORING CLIENT I.D. : MW-62 DATE ANALYZED : 08/04/93 : UG/L SAMPLE MATRIX : AQUEOUS UNITS DILUTION FACTOR : RESULTS COMPOUNDS <10 CHLOROMETHANE <10 BROMOMETHANE VINYL CHLORIDE <1 <1 CHLOROETHANE

<1

<1

METHYLENE CHLORIDE <5 <10 ACETONE CARBON DISULFIDE <1 1,1-DICHLOROETHENE 18 1,1-DICHLOROETHANE <1 <1 1,2-DICHLOROETHENE (TOTAL)

CHLOROFORM 1,2-DICHLOROETHANE <1 2-BUTANONE (MEK) <10 14 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE <1 VINYL ACETATE <10 BROMODICHLOROMETHANE <1

1,1,2,2-TETRACHLOROETHANE <1 1,2-DICHLOROPROPANE <1 TRANS-1, 3-DICHLOROPROPENE <1 TRICHLOROETHENE DIBROMOCHLOROMETHANE <1 1,1,2-TRICHLOROETHANE <1

<1 BENZENE CIS-1,3-DICHLOROPROPENE <1 2-CHLOROETHYLVINYLETHER < 10 BROMOFORM <5 <10 2-HEXANONE (MBK) 4-METHYL-2-PENTANONE (MIBK) <10

TETRACHLOROETHENE <1 <1 TOLUENE CHLOROBENZENE <1 ETHYLBENZENE <1 STYRENE <1

SURROGATE PERCENT RECOVERIES

TOTAL XYLENES

1,2-DICHLOROETHANE-D4 (%) 90 007071 BROMOFLUOROBENZENE (%) 98 98 TOLUENE-D8 (%)



REAGENT BLANK

WE CW		VOLATILE	OPCINTOG	/ בים א	22401	
TEST	•	AOTTATTE	OKGANICS	(LPA	82401	

	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
		ATI I.D.	: 307357
CLIENT	: SPARTON TECH., INC.	DATE EXTRACTED	: 08/04/93
PROJECT #	: 3Q NMED CME	DATE ANALYZED	: 08/04/93
PROJECT NAME	: CRFGW MONITORING	UNITS	: UG/L
CLIENT I.D.	: REAGENT BLANK	DITATITION FACTOR	: N/A

Chibiti 1.D Kmidhiti philit	DIBOTION TACTOR . 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-TRICHLOROÉTHANE	<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-PENTÁNONE (MIBK)	<10
TETRACHLOROETHENE	<1
TOLUENE	<1
CHLOROBENZENE	<1
ETHYLBENZENE	<1
STYRENE	<1
TOTAL XYLENES	<1
SURROGATE PERCENT RECOVER	RIES
1,2-DICHLOROETHANE-D4 (%)	91
BROMOFLUOROBENZENE (%)	93
TOLUENE-D8 (%)	. 01
	007072

007072



TOLUENE-D8 (%)

GCMS - RESULTS

REAGENT BLANK

TEST: VOLATILE ORGANICS (EPA 8240)

		ATI I.D.	:	307357
CLIENT	: SPARTON TECH., INC.	DATE EXTRACTED	:	08/05/93
PROJECT #	: 3Q NMED CME	DATE ANALYZED	:	08/05/93
PROJECT NAME	: CRFGW MONITORING	UNITS	:	UG/L

CLIENT I.D. : REAGENT BLANK DILUTION FACTOR : N/A COMPOUNDS 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

88



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

CHAIN OF CUSTODY

DATE: 7-26-43 PAGE \ OF 1

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1	

PROJECT MANAGER: John M. Wakefield	ANALYSIS REQUEST
COMPANY: Sparton Technology Inc. ADDRESS: 9621 Coors Rd. NW Albuquenque NM 87114 PHONE: (SOS) 892-5300 FAX: BILL TO: 11 COMPANY: 11 ADDRESS: 4901 Roclaway Blud. SE Ric Rancho NM 87124	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. SDWA Volatiles (615/8150) Base/Neutral/Acid Compounds GC/MS (625/8270) X Volatile Organics GC/MS (624/8240) Polynuclear Aromatics (610/8310) SDWA Primary Standards - Arizona SDWA Primary Standards - Arizona SDWA Secondary Standards - Federal SDWA Primary Standards - Federal SDWA Secondary Standards - Federal SDWA Metals by Total Digestion RCRA Metals by TCLP (1311)
SAMPLEID DATE TIME MATRIX LABID	Petrology (MOD Diesel BTXE) BTXE BTXE BTXE SDW/A
MW-56 7-26-43 1238 HC, NNG, 61 MW-55 7-26-43 1249 11 1 62 MW-53 7-26-43 12503 12 11 04 MW-62 17-26-43 1503 12 11 04	
PROJECT INFORMATION SAMPLE RECEIPT	SAMPLED & RELINQUISHED BY: 1. RELINQUISHED BY: 2. RELINQUISHED BY: 3.
PROJ. NO.: 3Q NMED CME NO. CONTAINERS /5 PROJ. NAME: CREGN Mayloring CUSTODY SEALS Y/N/NA P.O. NO.: 39404-1-08 RECEIVED INTACT SHIPPED VIA: Delivered RECEIVED COLD	Signature: Time: Signat
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS RUSH) □ 24hr □ 48hr □ 72hr □ 1 WEEK (NORMAL) № WEEK	RECEIVED BY: 1. RECEIVED BY: 2. NECEIVED BY: (LAB) 3. Signature: Time: Signature: Time:
C.O.C. Deals were placed or outside	Priored Name: Date: 9-25-97 Priored Name: Date: 9-25-97 Priored Name: Date: 9-25-97
of coops.	Company: Analytical Technologies, Inc.

Chain of Custody

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DATE //QJ	PAGE	OF.

NETWORK PROJECT MANAGER: DE	TIL DOOFF			· · · · · · · · · · · · · · · · · · ·		1911								NAL	VSIS	DEC	IIES.	r				derile.		800.7024
NETWORK PROJECT MANAGER: BET	TH PROFF	111			-					·	· T T			-	T	1	TT	'	1	- · ·	T T		 	(3/3/2)
COMPANY: Analytical Techn ADDRESS: 2709-D Pan Ame Albuquerque, NM	rican Fre						C LEAD	SULFIDE	STATES (MDAS)	632/632 MOD 619/619 MOD	0000		8240 (TCLP 1311) ZHE	asoline/BTXE/MTBE/ (MOD 8015/8020)	Volatile Organics GC/MS (624/8240)	Strocky Hallabory Merals	SO		COLIFORM	COLIFORM	GROSS ALPHA/BETA	RADIUM 226/228	2, CO2, METHANE	AIR/Diesel/Gasoline/BTXE/ (MOD 8015/8020) NUMBER OF CONTAINERS
					V		ORGANIC	SULFIDE		/632	610/8310		E o	Sel/G	atie	ي ال	ASBESTOS		TOTAL	FECAL	oss	20	AIR · 02,	/Die
SAMPLE ID	DATE	TIME	MATRIX	LABID	ΤΟX	5	8	200	5	632	18		824	Die	Š	NACE LO	ASI	800	유	H	GB	HA.	¥	¥ 5
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PROJECT INFORMATION	Variation	i i de seria de la compansión de la comp	SAM	PLE RECI	דמו		1.7	1,11	SAMP	LES SEN	IT-TO.	-	VIE	IHOUI	SHED	BY:	· 1	de Ag	F	RELIN	HSIUC	ED BY	: 197	2.
PROJECT NUMBER: 307357			NUMBER OF				Ti			ООВЭК			Signal	~	1	1	me:		Sign	ature:			Time	
PROJECT NAME: 51			OF CUSTOD				1-1	3-	FT. CO	OLLINS			Prihled	Name:	77		ale,	730	Prin	ted Nan	ne:		Date	
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QC BEQUIRED: MS MSD BLANK RECEIVED GOOD COND.CO.			.D		Ŋ						Analytic Albuque	al Tech	vnologi	s, Inc	•		Com	pany:						
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RUSH SURCHARGE:		W.O.=	" LS.	$\supset \omega_{\cdot} \cup$															P	ose	191	hdo	<u>u</u>	127/93
CLIENT DISCOUNT:	%								-				Compa	ny:	•				Con	npany:	1	4-1	1	



· · QUALITY CONTROL DATA

ATI I.D. : 307357

TEST: VOLATILE ORGANICS (EPA 8240)

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

% Recovery = (Spike Sample Result - Sample Result) 100 Spike Concentration RPD (Relative % Difference) = (Spiked Sample - Duplicate Spike) Result Sample Result X 100 Average of Spiked Sample



File Rel 93

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

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

Idela Mantu

Senior Organic Chemist

Letitia Krakowski

Acting Laboratory Manager

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LAK:jd

Enclosure



: NEW MEXICO ENVIRONMENTAL DEPT. DATE RECEIVED: 07/27/93 CLIENT

PROJECT # : (NONE)
PROJECT NAME : SPARTON TECHNOLOGIES REPORT DATE : 08/18/93

ATI I.D.: 307359

 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.



METALS RESULTS

ATI I.D. : 307359

: NEW MEXICO ENVIRONMENTAL DEPT. DATE RECEIVED : 07/27/93 CLIENT

PROJECT # : (NONE)
PROJECT NAME : SPARTON TECHNOLOGIES REPORT DATE : 08/18/93

					_	-,, -
PARAMETER	UNITS	01 m ⁽¹⁾	02 m A - 44	03,	04 mw 32	05 " ·,
SILVER (EPA 200.7/6010) ARSENIC (EPA 206.2/7060) BERYLLIUM (EPA 200.7/6010) CADMIUM (EPA 213.2/7131) CHROMIUM (EPA 200.7/6010) COPPER (EPA 200.7/6010) MERCURY (EPA 245.1/7470) NICKEL (EPA 200.7/6010) LEAD (EPA 239.2/7421)	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	<0.010 0.008 <0.005 <0.0005 <0.010 <0.010 <0.0002 <0.020 <0.002	<0.010 <0.005 <0.005 <0.0005 <0.010 <0.010 <0.0002 <0.020 <0.002	<0.010 <0.005 <0.005 <0.0005 0.057 <0.010 <0.0002 <0.020 <0.020	<0.010 <0.005 <0.005 <0.0005 <0.010 <0.010 <0.0002 0.033 <0.002	<0.010 <0.005 <0.005 <0.0005 <0.010 <0.010 <0.0002 <0.020 <0.002
ANTIMONY (EPA 200.7/6010) SELENIUM (EPA 270.2/7740)	MG/L MG/L	<0.05 <0.005	<0.05 <0.005	<0.05 <0.005	<0.05 <0.005	<0.05 <0.005
THALLIUM (EPA 270.2/7/40)	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



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 mg 6,	08 _{W.} a. ⁴⁴
SILVER (EPA 200.7/6010) ARSENIC (EPA 206.2/7060) BERYLLIUM (EPA 200.7/6010) CADMIUM (EPA 213.2/7131) CHROMIUM (EPA 200.7/6010) COPPER (EPA 200.7/6010) MERCURY (EPA 245.1/7470) NICKEL (EPA 200.7/6010) LEAD (EPA 239.2/7421) ANTIMONY (EPA 200.7/6010)	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	<0.010 <0.005 <0.005 <0.0005 <0.010 <0.010 <0.0002 <0.020 <0.002	<0.010 0.005) <0.005 <0.0005 <0.010 <0.010 <0.0002 <0.020 <0.002
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



METALS - QUALITY CONTROL

: NEW MEXICO ENVIRONMENTAL DEPT. CLIENT

PROJECT # : (NONE)
PROJECT NAME : SPARTON TECHNOLOGIES ATI I.D. : 307359

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT I	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
SILVER ARSENIC BERYLLIUM CADMIUM CHROMIUM COPPER MERCURY NICKEL LEAD ANTIMONY SELENIUM THALLIUM THALLIUM ZINC	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	30735902 30735901 30735902 30735902 30735902 30735902 30735901 30735902 30735902 30793608 30793608 30793608 30793603	<0.010 0.008 <0.005 <0.0005 <0.010 <0.010 <0.020 <0.020 <0.05 <0.005 <0.005 <0.005 <0.005	<0.010 0.008 <0.005 <0.0005 <0.010 <0.010 <0.020 <0.020 <0.05 <0.005 <0.005 <0.005 <0.005	NA 0 NA	1.02 0.059 0.979 0.0057 1.04 1.02 0.0052 1.00 0.049 1.04 0.044 0.052 0.048 1.04	1.00 0.050 1.00 0.0050 1.00 1.00 0.0050 1.00 0.050 0.050 0.050 1.00	102 102 98 114 104 102 104 100 98 104 88 104 96
AIRC	110/11	30733302	.0.020	-0.020	147.7	1.04	1.00	104

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Spike Concentration
RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)
                   ----- X 100
```

Average Result



ATI I.D. : 30735901

TEST: VOLATILE ORGANICS (EPA 8240)

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)	
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-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 (%) 94	
BROMOFLUOROBENZENE (%) 95 007102	
TOLUENE-D8 (%) 96	

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735901

RESULTS COMPOUNDS

NO ADDITIONAL COMPOUNDS



TRICHLOROETHENE

2-HEXANONE (MBK)

TETRACHLOROETHENE

CHLOROBENZENE

TOTAL XYLENES

ETHYLBENZENE

BENZENE

TOLUENE

STYRENE

BROMOFORM

DIBROMOCHLOROMETHANE

1,1,2-TRICHLOROETHANE

CIS-1,3-DICHLOROPROPENE

2-CHLOROETHYLVINYLETHER

4-METHYL-2-PENTANONE (MIBK)

GCMS - RESULTS

ATI I.D.: 30735902

TEST: VOLATILE ORGANICS (EPA 8240)

TEST : VOLHITHE ONORATES (EIN OFTO)	
CLIENT : NEW MEXICO ENVIRONMENTAL DE PROJECT # : (NONE) PROJECT NAME : SPARTON TECHNOLOGIES CLIENT I.D. : MW-41 SAMPLE MATRIX : AQUEOUS	DATE SAMPLED : 07/27/93 DATE RECEIVED : 07/27/93 DATE EXTRACTED : N/A DATE ANALYZED : 08/07/93 UNITS : UG/L DILUTION FACTOR : 2
COMPOUNDS	RESULTS
CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHENE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,2,2-TETRACHLOROETHANE 1,2-DICHLOROPROPANE TRANS-1,3-DICHLOROPROPENE	<20 <20 <2 <2 90 <20 <2 83 <2 <2 <2 <2 <2 <2 <20 <110 <2 <20 <2 <20 <12 <2 <20 <10 <10 <2 <2 <20 <20 <2 <20 <20 <20 <20 <20 <

380

<2

<2

<2

<20

<10

<20

<20

<2

<2

<2

<2

<2

SURROGATE PERCENT RECOVERIES

1,2-DICHLOROETHANE-D4 (%)	94	•
BROMOFLUOROBENZENE (%)	93	007104
TOLUENE-D8 (%)	98	007101



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D.: 30735902

COMPOUNDS RESULTS

NO ADDITIONAL COMPOUNDS



ATI I.D. : 30735903

TEST: VO	LATILE	ORGANICS	(EPA	8240)	
----------	--------	----------	------	-------	--

1EST : VOLATILE ONGANICS (EFA 0240)	
CLIENT : NEW MEXICO ENVIRONMENTAL DEPT. PROJECT # : (NONE) PROJECT NAME : SPARTON TECHNOLOGIES CLIENT I.D. : MW-36 SAMPLE MATRIX : AQUEOUS	UNITS : UG/L DILUTION FACTOR : 1
COMPOUNDS	
CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHENE 1,1-DICHLOROETHANE 1,2-DICHLOROETHENE (TOTAL) CHLOROFORM 1,2-DICHLOROETHANE 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,1,2,2-TETRACHLOROETHANE 1,2-DICHLOROPROPANE TRANS-1,3-DICHLOROPROPENE	<10 <10 <10 <1 <1 <1 <5 <10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%) BROMOFLUOROBENZENE (%) TOLUENE-D8 (%)	96 96 91 007106



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735903

COMPOUNDS RESULTS

NO ADDITIONAL COMPOUNDS



TOLUENE-D8 (%)

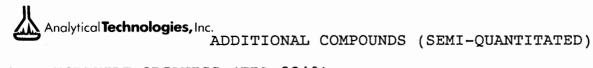
GCMS - RESULTS

ATI I.D.: 30735904

TEST: VOLATILE ORGANICS (EPA 8240)

1001 1 10211120 (1111 0110)	
CLIENT • NEW MEXICO ENVIRONMENTAL	. DEPT DATE SAMPLED • 07/27/93
CLIENT : NEW MEXICO ENVIRONMENTAL PROJECT # : (NONE) PROJECT NAME : SPARTON TECHNOLOGIES	DATE RECEIVED • 07/27/93
PROJECT NAME : SPARTON TECHNOLOGIES	DATE EXTRACTED : N/A
CLIENT I.D. : MW-32	DATE ANALYZED : 08/08/93
SAMPLE MATRIX : AQUEOUS	UNITS : UG/L
DIMITED INTERIOR	DILUTION FACTOR: 50
COMPOUNDS	RESULTS
CHLOROMETHANE	<500
BROMOMETHANE	<500
VINYL CHLORIDE	<50
CHLOROETHANE MEMUNIENE CHIORIDE	<50 <250
METHYLENE CHLORIDE ACETONE	<500
CARBON DISULFIDE	<50
1,1-DICHLOROETHENE	600
1,1-DICHLOROETHENE 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-CHLOROETHYLVINYLETHER	<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 (%)	0.5
()	95 007108

88



TEST : VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735904

NO ADDITIONAL COMPOUNDS



ATI I.D. : 30735905

TEST: VOLATILE ORGANICS (EPA 8240)

TEST: VOLATILE ORGANICS (EPA 0240)	
CLIENT : NEW MEXICO ENVIRONMENTAL DEPT. PROJECT # : (NONE) PROJECT NAME : SPARTON TECHNOLOGIES CLIENT I.D. : MW-60 SAMPLE MATRIX : AQUEOUS	DILUTION FACTOR: 1
CHLOROMETHANE BROMOMETHANE UNIVL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHENE 1,2-DICHLOROETHENE 1,2-DICHLOROETHENE 1,2-DICHLOROETHANE 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,2,2-TETRACHLOROETHANE 1,2-DICHLOROPANE TRANS-1,3-DICHLOROPANE TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROETHANE 2-LICHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 2-CHLOROETHYLVINYLETHER BENZENE CIS-1,3-DICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 2-HEXANONE (MBK) 4-METHYL-2-PENTANONE (MIBK) TETRACHLOROETHENE TOLUENE CHLOROBENZENE ETHYLBENZENE STYRENE TOTAL XYLENES	<10 <10 <1 <1 <1 <5 <10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%) BROMOFLUOROBENZENE (%) TOLUENE-D8 (%)	95 99 92 007110



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D.: 30735905

COMPOUNDS RESULTS

NO ADDITIONAL COMPOUNDS



GCMS - RESULTS

ATI I.D. : 30735906

TEST: VOLATILE ORGANICS (EPA 8240)

,	
CLIENT : NEW MEXICO ENVIRONMENTAL DEPT PROJECT # : (NONE) PROJECT NAME : SPARTON TECHNOLOGIES CLIENT I.D. : MW-61 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 : 2
COMPOUNDS	RESULTS
CHLOROMETHANE BROMOMETHANE VINYL CHLORIDE CHLOROETHANE METHYLENE CHLORIDE ACETONE CARBON DISULFIDE 1,1-DICHLOROETHENE 1,2-DICHLOROETHENE 1,2-DICHLOROETHENE (TOTAL) CHLOROFORM 1,2-DICHLOROETHANE 2-BUTANONE (MEK) 1,1,1-TRICHLOROETHANE CARBON TETRACHLORIDE VINYL ACETATE BROMODICHLOROMETHANE 1,1,2,2-TETRACHLOROETHANE 1,2-DICHLOROPROPANE TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 2-CHLOROETHENE DIBROMOCHLOROMETHANE 1,1,2-TRICHLOROPROPENE 2-CHLOROETHYLVINYLETHER BROMOFORM 2-HEXANONE (MBK) 4-METHYL-2-PENTANONE (MIBK) TETRACHLOROETHENE TOLUENE CHLOROBENZENE ETHYLBENZENE STYRENE TOTAL XYLENES	<20 <20 <2 <2 <10 <20 <20 <2 14 <22 <2 <2 <2 <2 <2 <20 <2 <2 <20 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2
SURROGATE PERCENT RECOVERIES	
1,2-DICHLOROETHANE-D4 (%) BROMOFLUOROBENZENE (%) TOLUENE-D8 (%)	98 97 93 00711.2



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D.: 30735906

COMPOUNDS RESULTS

NO ADDITIONAL COMPOUNDS



TOLUENE-D8 (%)

GCMS - RESULTS

ATI I.D. : 30735907

TEST : VOLATILE ORGANICS (EPA 8240)

COMPOUNDS	UNITS : UG/L DILUTION FACTOR : 1
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 VINYL ACETATE	<1 <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-PENTÁNONE (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 007114
MOTURE DO (%)	97

92



ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735907

COMPOUNDS RESULTS

NO ADDITIONAL COMPOUNDS



1,2-DICHLOROETHANE-D4 (%)

BROMOFLUOROBENZENE (%)

TOLUENE-D8 (%)

GCMS - RESULTS

ATI I.D. : 30735908

TEST: VOLATILE ORGANICS (EPA 8240)

: NEW MEXICO ENVIRONMENTAL DEPT. : 07/27/93 CLIENT DATE SAMPLED PROJECT # DATE RECEIVED : 07/27/93 : (NONE) 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

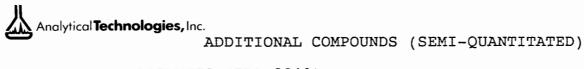
COMPOUNDS	RESULTS
CHLOROMETHANE	<10
BROMOMETHANE	<10
VINYL CHLORIDE	<1
CHLOROETHANE	<1
METHYLENE CHLORIDE	<5
ACETONE	<10
CARBON DISULFIDE	<1
1,1-DICHLOROETHENE	<1
1,1-DICHLOROETHANE	<1
1,2-DICHLOROETHENE (TOTAL)	<1
CHLOROFORM	<1
1,2-DICHLOROETHANE	<1
2-BUTANONE (MEK)	<10
1,1,1-TRICHLOROETHANE	<1
CARBON 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-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	
1.0 p. a.	0.0

89

101

103

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TEST: VOLATILE ORGANICS (EPA 8240)

ATI I.D. : 30735908

RESULTS

NO ADDITIONAL COMPOUNDS



REAGENT BLANK

TEST: VOLATILE ORGANICS (EPA 8240) ATI I.D. : 307359 : NEW MEXICO ENVIRONMENTAL DEPT. DATE EXTRACTED : 08/05/93 CLIENT PROJECT # : (NONE) DATE ANALYZED : 08/05/93 PROJECT NAME : SPARTÓN TECHNOLOGIES UNITS : UG/L CLIENT I.D. : REAGENT BLANK DILUTION FACTOR : N/A COMPOUNDS RESULTS CHLOROMETHANE BROMOMETHANE <10 VINYL CHLORIDE <1 <1 CHLOROETHANE METHYLENE CHLORIDE <5 <10 ACETONE 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



REAGENT BLANK

TEST: VOLATILE ORGANICS (EPA 8240) ATI I.D. : 307359 DATE EXTRACTED : 08/07/93 CLIENT : NEW MEXICO ENVIRONMENTAL DEPT. PROJECT # : (NONE) DATE ANALYZED : 08/07/93 PROJECT NAME : SPARTON TECHNOLOGIES UNITS : UG/L CLIENT I.D. : REAGENT BLANK 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 <1 ETHYLBENZENE STYRENE <1 TOTAL XYLENES <1 SURROGATE PERCENT RECOVERIES 94 1,2-DICHLOROETHANE-D4 (%) BROMOFLUOROBENZENE (%) 92 TOLUENE-D8 (%) 98



REAGENT BLANK

TEST: VOLATILE ORGANICS (EPA 8240) ATI I.D. : 307359
: NEW MEXICO ENVIRONMENTAL DEPT. DATE EXTRACTED : 08/08/93 CLIENT PROJECT # : (NONE) DATE ANALYZED : 08/08/93 PROJECT NAME : SPARTÓN TECHNOLOGIES UNITS : UG/L CLIENT I.D. : REAGENT BLANK DILUTION FACTOR: N/A COMPOUNDS <10 CHLOROMETHANE <10 BROMOMETHANE VINYL CHLORIDE <1 <1 CHLOROETHANE METHYLENE CHLORIDE <5 <10 ACETONE 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 <10 2-CHLOROETHYLVINYLETHER BROMOFORM <5 2-HEXANONE (MBK) <10 <10 4-METHYL-2-PENTANONE (MIBK) TETRACHLOROETHENE <1 TOLUENE <1 <1 CHLOROBENZENE ETHYLBENZENE <1 STYRENE <1 TOTAL XYLENES <1 SURROGATE PERCENT RECOVERIES 1,2-DICHLOROETHANE-D4 (%) 88 BROMOFLUOROBENZENE (%) 100 TOLUENE-D8 (%) 99



QUALITY CONTROL DATA

ATI I.D. : 307359

TEST: VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT. PROJECT # : (NONE) DATE ANALYZED: 08/05/93 PROJECT NAME : SPARTÓN TECHNOLOGIES SAMPLE MATRIX : AQUEOUS

REF I.D. : 30735703 UNITS : UG/L

COMPOUNDS	SAMPLE RESULT	CONC. SPIKED	SPIKED SAMPLE	% REC	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
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

% Recovery = (Spike Sample Result - Sample Result) ---- X 100 Spike Concentration RPD (Relative % Difference) = (Spiked Sample - Duplicate Spike)
Result Sample Result ---- X 100 Average of Spiked Sample



QUALITY CONTROL DATA

ATI I.D. : 307359

TEST: VOLATILE ORGANICS (EPA 8240)

CLIENT : NEW MEXICO ENVIRONMENTAL DEPT.

PROJECT # : (NONE)

PROJECT NAME : SPARTON TECHNOLOGIES

DATE ANALYZED : 08/09/93

SAMPLE MATRIX : AQUEOUS

REF I.D. : 30736007 UNITS : UG/L

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

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

CHAIN OF CUSTODY DATE: 7/97 PAGE OF

PROJECT MANAGE	IR: Steve	e 1910	exand	les							,			A٨	IAL'	YSIS	RE	QUEST								كبها
COMPANY:! ADDRESS: PHONE: FAX:	NMED FIRMB 525 Cam. Souta Fo					Petroleum Hydrocarbons (418.1)	(MOD 8015) Gas/Diesel	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)	UCACI MULIALICS (010/0010)	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	אווטין עי ויטין עי וואין עי אומינען אי אומינען אי
SAMPLE	ID	DATE	TIME	MATRIX	LAB ID	Petrol		BTXE		Chlor	Arom	SDW,		Pestic	Herbi	Base/	Volati	<u>\$</u>	SDW	SDW.	SDW	SDW		2	HCH BCH BCH	<u>:</u>
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MW-41		7/27		11	00_								\top				2							i	\top	
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nw -32	0	H27	-	cl	07		\top									-	2							it	1	
mw-60	700	7/27		11	05												2							1		
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PROJ. NAME:	· · · · · · · · · · · · · · · · · · ·	7"	CUSTODY S	EALS \	/ / N / NA	Print	od Na	462y	K	Date:	51	16	Prin	ted N	ama'		Dat	o.		P,	rinted	Name:		Date	·····	
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SHIPPED VIA:			RECEIVED (COLD	Ÿ	Con	ipany: M3	. •	(2)	Phone.	1 121	'ኛ	Cor	npany						C	ompa	ny:				
PRIOR AUTH	ORIZATION IS F	REQUIRE			S		CEIV	ED B		- 1	<u> </u>	_], [IECEI	VED	BY:			2.		RMC	CEIVED	BY:(ĹA	(B)		
RUSH) 24hr 48	Bhr □72hr □1	1 WEEK	(N	ORMAL)	12WEEK		ature:			Time:				nature:			Tirr	e:	\	Si		ire: ,		Time);	
Comments:						Drint	ed Na	mc.		Date:			Drin	ted N	amo.		Dat	o.	_	\	inter	Name:	ىكى	X T. C Date	E	151
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						Соп	рапу:						Cor	npany:	:							Analytic	al Tech	inolo	gies,	Inc.
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Chain of Custody

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DATE	1/93 PAGE 1 OF 1	

NETWORK PROJECT MANAGER: BETH PROFFITT								:					ş (19)	AN	ALY	SIS	RE	QUE	ST				•					
COMPANY: Analytical Technologie ADDRESS: 2709-D Pan American I Albuquerque, NM 8710 CLIENT PROJECT MANAGER: SAMPLE ID DATE 309359-1 7/27/1 - 3 - 4 - 5 - 6 - 9/21/2 - 8 (7/27/1	s, Inc. reeway, N	MATRIX	LAB ID 1 2 3 4 5 6 7 8	TOX	201	ORGANIC LEAD	SURFACTANTS (MBAS)		632/632 MOD	619/619 MOD	610/8310		11 th 1770 th 1750 th	0740 1151 715 0740 1151 715	D 8015/8020)	大 大 大 大 Volatile Organics GCMS (6248240)	inity tollatont 11) etals	NACE .		800	TOTAL COLIFORM	FECAL COLIFORM		GROSS ALPHA/BETA	DADIOM ZEO/ZEO	AIR - 02, CO2, METHANE		
PRO IFOT ILFORMATION			O E DECI	-107				SAMP	ESS	FNTT	<u> </u>	4	- h	ELIM	ZUIS	HED	RY:		1.			RFLI	NOU	SHE	D BY:		2.	
PROJECT INFORMATION PROJECT NUMBER: 307359	TOTAL	SAM L NUMBER O	PLE REC			22		SAN D	EGO		Ľ	#	Signa			<u>~</u>	7	ime:				ature		J		Time		
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RUSH SURCHARGE: CLIENT DISCOUNT: 0 %											-	\dashv	Co-								2	$\chi \alpha$	ell	6 1 Idal 128/9				
* Seals on VOA's only	,										\dashv	-	Com	pany:							Con	npan	j.					

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 Stak Well mw-15 for

CME parameters + Annual Prant

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

Ja M Cantu

Letitia Krakowski

Acting Laboratory Manager

LAK:jd

Enclosure



ACCESSION #: 307360

PARAMETER	METHOD	DATE ANALYZED	ANALYST
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
рН	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.)



CLIENT : SPARTON TECH., INC.

DATE RECEIVED: 07/27/93

PROJECT # : 3Q NMED CME

PROJECT NAME : CRFGW MON

REPORT DATE : 08/19/93

ATI I.D. : 307360

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



GENERAL CHEMISTRY RESULTS

ATI I.D. : 307360

DATE RECEIVED: 07/27/93

CLIENT : SPARTON TECH., INC. PROJECT # : 3Q NMED CME PROJECT NAME : CRFGW MON REPORT DATE : 08/19/93

	: 08/19/93
ARAMETER UNITS 07	
HLORIDE (EPA 325.2) MG/L 29 HROMIUM HEXAVALENT EPA 7196 MG/L <0.02 ONDUCTIVITY, (UMHOS/CM) 650 ITRATE AS N (EPA 353.2) MG/L 4.3 H (EPA 150.1) UNITS 8.0 ULFATE (EPA 375.2) MG/L 89 JELDAHL NITROGEN (351.2) MG/L <0.2 OTAL ORGANIC CARBON MG/L 1 OTAL ORGANIC HALIDE UG/L 70	



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

% Recovery = (Spike Sample Result - Sample Result) _____X 100 Spike Concentration RPD (Relative Percent Difference) = (Sample Result - Duplicate Result) 100

Average Result



METALS RESULTS

ATI I.D. : 307360

CLIENT : SPARTON TECH., INC. PROJECT # : 3Q NMED CME DATE RECEIVED: 07/27/93

REPORT DATE : 08/19/93 PROJECT NAME : CRFGW MON 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 <0.005 <0.005 <0.005 BERYLLIUM (EPA 200.7/6010) <0.005 MG/L <0.005 CADMIUM (EPA 213.2/7131) <0.0005 <0.0005 <0.0005 <0.0005 <0.0005 MG/L <0.010 0.052 <0.010 <0.010 CHROMIUM (EPA 200.7/6010) MG/L <0.010 COPPER (EPA 200.7/6010) MERCURY (EPA 245.1/7470) MG/L <0.010 0.012 <0.010 <0.010 <0.010 MG/L <0.0002 <0.0002 <0.0002 <0.0002 <0.0002 <0.020 <0.020 <0.020 <0.020 0.038 NICKEL (EPA 200.7/6010) MG/L <0.002 LEAD (EPA 239.2/7421) MG/L <0.002 <0.002 <0.002 <0.002 ANTIMONY (EPA 200.7/6010) SELENIUM (EPA 270.2/7740) <0.05 <0.05 <0.05 MG/L <0.05 <0.05 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) <0.020 <0.020 <0.020 <0.020 <0.020 MG/L



METALS RESULTS

ATI I.D. : 307360

DATE RECEIVED: 07/27/93

CLIENT : SPARTON TECH., INC.
PROJECT # : 3Q NMED CME
PROJECT NAME : CRFGW MON REPORT DATE : 08/19/93

PROJECT NAME : CRIGW MON				REPORT	DATE	:	08/19/9	3
PARAMETER	UNITS	06	07					_
SILVER (EPA 200.7/6010) ARSENIC (EPA 206.2/7060) BORON (EPA 200.7/6010) BERYLLIUM (EPA 200.7/6010) CADMIUM (EPA 213.2/7131) CHROMIUM (EPA 200.7/6010) TRIVALENT CHROMIUM (EPA 7196 COPPER (EPA 200.7/6010) MERCURY (EPA 245.1/7470) MANGANESE (EPA 200.7/6010) SODIUM (EPA 200.7/6010) NICKEL (EPA 200.7/6010) LEAD (EPA 239.2/7421) ANTIMONY (EPA 270.2/7740)	MG/L MG/L MG/L MG/L MG/L MG/L MG/L MG/L	<0.010 <0.005 - <0.005 <0.0005 <0.010 - <0.010 <0.0002 - <0.020 0.003 <0.05 <0.005	0.008 0.13 <0.005 <0.010 <0.02 <0.010 <0.000 <0.010 51.1 <0.020 <0.002 <0.05 <0.05	5				
THALLIUM (EPA 279.2/7841) ZINC (EPA 200.7/6010)	MG/L MG/L	<0.005 <0.020	<0.005 <0.020					



METALS - QUALITY CONTROL

CLIENT : SPARTON TECH., INC.

PROJECT # : 3Q NMED CME
PROJECT NAME : CRFGW MON

PROJECT NAME : CRFGW MON ATI I.D. : 307360

D. D. V. D. W. D. D. D. W. D. D. D. W. D. D. D. D. W. D.	TIX T T T T	> T	SAMPLE	DUP.		SPIKED		8
PARAMETER	UNITS	ATI I.D.	RESULT	RESULT I	RPD	SAMPLE	CONC	REC
SILVER	MG/L	30736002	<0.010	<0.010	NA	0.462	0.500	92
SILVER	MG/L	30736005		<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	NA	0.480	0.500	96
MERCURY	MG/L	30735901	<0.0002	<0.0002	NA	0.0052	0.0050	104
MERCURY	$\mathtt{MG/L}$	30736003	<0.0002	<0.0002	NA	0.0049	0.0050	98
MANGANESE	MG/L	30849902			0.9	3.09	1.00	96
SODIUM	MG/L	30791301	23.7	23.7	0	75.3	50.0	103
NICKEL	$\mathtt{MG/L}$	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

```
% Recovery = (Spike Sample Result - Sample Result)
----- X 100
Spike Concentration
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Spike Concentration

RPD (Relative Percent Difference) = (Sample Result - Duplicate Result)

----- X 100

Average Result
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