This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

Document number: SD-WM-DP-183

Section 2 **of** 4

Title: 222S Lab Analytical Report for Tank 241C106 Grab Samples 6C-96-1 Thru 6C-96-16 & 6C-96-17-FB [Pgs 574 Thru 1182]

Date: 08/06/1996 **Revision:** A000

Originator: Esch RA
Co: WHC

Recipient:
Co:

References: EDT-614793

W.L. # 6871

S96T000855

1mL → 25mL

DOUBLE KNOWN ADDITION SELECTED
AT 03:30, 01-26-00

SAMPLE VOL= 25.000 AT 03:31, 01-26-00
ENTERED

EMF= 10.1 mV AT 03:34, 01-26-00

EMF= 11.5 mV AT 03:35, 01-26-00

EMF= 11.9 mV AT 03:35, 01-26-00

EMF= 12.1 mV AT 03:36, 01-26-00

EMF= 12.2 mV AT 03:36, 01-26-00

EMF= 12.4 mV AT 03:36, 01-26-00
ENTERED

STD CONCN= 1000 AT 03:36, 01-26-00
ENTERED

STD VOL= .25000 AT 03:37, 01-26-00
ENTERED

EMF=-103.2 mV AT 03:37, 01-26-00

EMF=-103.3 mV AT 03:38, 01-26-00

EMF=-103.2 mV AT 03:38, 01-26-00
ENTERED

STD VOL= 2.5000 AT 03:38, 01-26-00
ENTERED

EMF=-161.2 mV AT 03:39, 01-26-00

EMF=-161.1 mV AT 03:40, 01-26-00

EMF=-161.0 mV AT 03:41, 01-26-00

EMF=-161.1 mV AT 03:41, 01-26-00
ENTERED

1:NH3 SLOPE=-58.1 mV/DEC
AT 03:41, 01-26-00

1:NH3 CONCN= .103 — 0.0575 x 25 D.F. = 1.14 mg/mL or <5.00

W.L. # 6871

596T0008555 DUP

1mL → 25mL

WHC-SD-WM-DP-183, REV. 0

DOUBLE KNOWN ADDITION SELECTED
AT 03:43, 01-26-00

SAMPLE VOL= 25.000 AT 03:43, 01-26-00
ENTERED

EMF= 12.9 mV AT 03:46, 01-26-00

EMF= 13.2 mV AT 03:46, 01-26-00

EMF= 13.6 mV AT 03:46, 01-26-00

EMF= 14.9 mV AT 03:47, 01-26-00
ENTERED

STD CONCN= 1000 AT 03:48, 01-26-00
ENTERED

STD VOL= .25000 AT 03:48, 01-26-00
ENTERED

EMF=-102.4 mV AT 03:49, 01-26-00

EMF=-102.4 mV AT 03:49, 01-26-00

EMF=-102.3 mV AT 03:50, 01-26-00

EMF=-102.3 mV AT 03:50, 01-26-00
ENTERED

STD VOL= 2.5000 AT 03:51, 01-26-00
ENTERED

EMF=-160.6 mV AT 03:51, 01-26-00

EMF=-160.5 mV AT 03:52, 01-26-00

EMF=-160.5 mV AT 03:52, 01-26-00
ENTERED

1:NH3 SLOPE=-58.4 mV/DEC
AT 03:52, 01-26-00

1:NH3 CONCN= .0984 - 0.0575 x 25 D.F. = 1.02 mg/ml or < 5.00

W.L. # 6871

S96T000855 SPIKE
1mL → 25mL

DOUBLE KNOWN ADDITION SELECTED
AT 03:53, 01-26-00

SAMPLE VOL= 25.000 AT 03:54, 01-26-00
ENTERED

EMF=-59.6 mV AT 03:56, 01-26-00

EMF=-59.1 mV AT 03:56, 01-26-00

EMF=-58.7 mV AT 03:57, 01-26-00

EMF=-58.7 mV AT 03:57, 01-26-00
ENTERED

STD CONCN= 1000 AT 03:57, 01-26-00
ENTERED

STD VOL= .25000 AT 03:57, 01-26-00
ENTERED

EMF=-106.8 mV AT 03:58, 01-26-00

EMF=-106.7 mV AT 03:59, 01-26-00

EMF=-106.5 mV AT 03:59, 01-26-00

EMF=-106.5 mV AT 03:59, 01-26-00
ENTERED

STD VOL= 2.5000 AT 04:00, 01-26-00
ENTERED

EMF=-161.8 mV AT 04:00, 01-26-00

EMF=-161.9 mV AT 04:01, 01-26-00

EMF=-161.7 mV AT 04:02, 01-26-00

EMF=-161.7 mV AT 04:02, 01-26-00
ENTERED

1:NH3 SLOPE=-59.0 mV/DEC
AT 04:02, 01-26-00

1:NH3 CONCN= 1.81 $-0.103 \times 25 = 42.7 / 411 \times 100 = 103.8\%$ Spike recovery

W.L. # 6011

STANDARD
145N16-A
1mL → 25mL

DOUBLE KNOWN ADDITION SELECTED
AT 04:02, 01-26-00

SAMPLE VOL= 25.000 AT 04:03, 01-26-00
ENTERED

EMF=-116.2 mV AT 04:04, 01-26-00

EMF=-116.1 mV AT 04:05, 01-26-00

EMF=-115.8 mV AT 04:06, 01-26-00

EMF=-115.6 mV AT 04:06, 01-26-00

EMF=-115.5 mV AT 04:06, 01-26-00

EMF=-115.3 mV AT 04:07, 01-26-00
ENTERED

STD CONCN= 1000 AT 04:07, 01-26-00
ENTERED

STD VOL= .25000 AT 04:07, 01-26-00
ENTERED

EMF=-127.0 mV AT 04:08, 01-26-00

EMF=-126.9 mV AT 04:08, 01-26-00

EMF=-126.7 mV AT 04:09, 01-26-00

EMF=-126.7 mV AT 04:09, 01-26-00
ENTERED

STD VOL= 2.5000 AT 04:09, 01-26-00
ENTERED

EMF=-164.5 mV AT 04:10, 01-26-00

EMF=-164.4 mV AT 04:11, 01-26-00

EMF=-164.1 mV AT 04:12, 01-26-00

EMF=-164.1 mV AT 04:12, 01-26-00
ENTERED

1:NH3 SLOPE=-60.1 mV/DEC
AT 04:12, 01-26-00

1:NH3 CONCN= 17.8 -0.0575×25 D.F. $= 443.6/411 \times 100 = 107.9$

LABCORE Data Entry Template for Worklist# 6216

Analyst: KLM **Instrument:** IC00 IC02 **Book#** 133N9-A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 @IC-01. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T000538	0		@IC-01	LIQUID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T000538	0		@IC-01	LIQUID		
5	SPK	S96T000538	0		@IC-01	LIQUID		

Final page for worklist # 6216

Noel Smith for KLM 4/2/96

Analyst Signature **Date**

Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 6216

Analyst: vlm **Instrument:** IC02 **Book#** 133N94

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 @IC-01. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1		<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1		5.00e-02	0.050	ug/mL
1	CCB			0	@IC-QC	NO2	QC	1		<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1		<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1		<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1		<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1		<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	59		5.94e+01	100.678	% Recovery
2	CCV			0	@IC-QC	CL	QC	79		8.10e+01	102.532	% Recovery
2	CCV			0	@IC-QC	NO2	QC	537		5.56e+02	103.538	% Recovery
2	CCV			0	@IC-QC	BR	QC	575		5.86e+02	101.913	% Recovery
2	CCV			0	@IC-QC	NO3	QC	614		6.27e+02	102.117	% Recovery
2	CCV			0	@IC-QC	PO4	QC	546		5.63e+02	103.114	% Recovery
2	CCV			0	@IC-QC	SO4	QC	631		6.28e+02	99.525	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	509		5.36e+02	105.305	% Recovery
3	SAMPLE	S96T000538		0	@IC-01	F-02	LIQUID	N/A		3.170e+02	132.600	ug/mL
3	REJECT	S96T000538		0	@IC-01	F-02	LIQUID	N/A		3.170e+02		ug/mL
3	SAMPLE	S96T000538		0	@IC-01	CL-02	LIQUID	N/A		2.478e+02	173.400	ug/mL
3	REJECT	S96T000538		0	@IC-01	CL-02	LIQUID	N/A		2.478e+02		ug/mL
3	SAMPLE	S96T000538		0	@IC-01	NO2-02	LIQUID	N/A		2.911e+04	1092.000	ug/mL
3	REJECT	S96T000538		0	@IC-01	NO2-02	LIQUID	N/A		2.911e+04		ug/mL
3	SAMPLE	S96T000538		0	@IC-01	NO3-02	LIQUID	N/A		2.044e+03	1428.000	ug/mL
3	REJECT	S96T000538		0	@IC-01	NO3-02	LIQUID	N/A		2.044e+03		ug/mL
3	SAMPLE	S96T000538		0	@IC-01	PO4-02	LIQUID	N/A	<	1.213e+03	1213.000	ug/mL
3	REJECT	S96T000538		0	@IC-01	PO4-02	LIQUID	N/A	<	1.213e+03		ug/mL
3	REJECT	S96T000538		0	@IC-01	PO4-02	LIQUID	N/A	<	1.223e+03		ug/mL
3	SAMPLE	S96T000538		0	@IC-01	SO4-02	LIQUID	N/A		7.464e+03	1386.000	ug/mL
3	REJECT	S96T000538		0	@IC-01	SO4-02	LIQUID	N/A		7.464e+03		ug/mL
3	SAMPLE	S96T000538		0	@IC-01	OXALATE2	LIQUID	N/A		3.654e+03	1071.000	ug/mL
3	REJECT	S96T000538		0	@IC-01	OXALATE2	LIQUID	N/A		3.654e+03		ug/mL
4	DUP	S96T000538		0	@IC-01	F-02	LIQUID	3.17e+02		3.47e+02	9.036	RPD
4	DUP	S96T000538		0	@IC-01	CL-02	LIQUID	2.48e+02		4.28e+02	53.254	RPD
4	DUP	S96T000538		0	@IC-01	NO2-02	LIQUID	2.91e+04		2.87e+04	1.384	RPD
4	DUP	S96T000538		0	@IC-01	NO3-02	LIQUID	2.04e+03		1.58e+03	25.414	RPD
4	DUP	S96T000538		0	@IC-01	PO4-02	LIQUID	<1.21e3		<1.21e3		RPD
4	DUP	S96T000538		0	@IC-01	SO4-02	LIQUID	7.46e+03		7.86e+03	5.222	RPD
4	DUP	S96T000538		0	@IC-01	OXALATE2	LIQUID	3.65e+03		3.70e+03	1.361	RPD
5	SPK	S96T000538		0	@IC-01	F-02	LIQUID	59		5.70e+01	96.610	% Recovery
5	SPK	S96T000538		0	@IC-01	CL-02	LIQUID	79		8.06e+01	102.025	% Recovery
5	SPK	S96T000538		0	@IC-01	NO2-02	LIQUID	537		5.71e+02	106.331	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6216

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
5	SPK	S96T000538		0	@IC-01	NO3-02	LIQUID	614	6.33e+02	103.094	% Recovery
5	SPK	S96T000538		0	@IC-01	PO4-02	LIQUID	546	5.66e+02	103.663	% Recovery
5	SPK	S96T000538		0	@IC-01	SO4-02	LIQUID	631	6.37e+02	100.951	% Recovery
5	SPK	S96T000538		0	@IC-01	OXALATE2	LIQUID	509	5.52e+02	108.448	% Recovery

Final page for worklist# 6216

Analyst Signature Date

Analyst Signature Date

Reviewer Signature Date 4/19/96

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Reprocessed On 04/01/1996 09:36:21

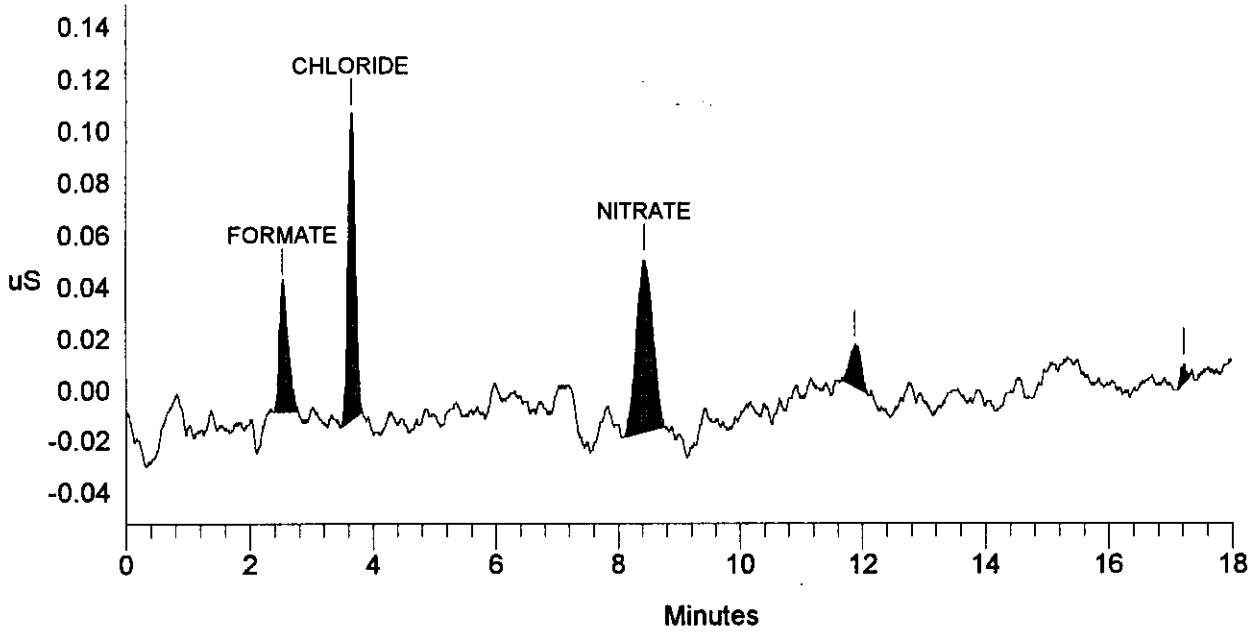
Sample Name: INSTR BLANK Date: 03/20/1996 08:31:49
Data File : C:\DX\DATA\96032031.d01
Method : C:\DX\METHOD\AS12A.MET
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : 4/2/96 Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	5400	5Hz	0.00	18.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	2.53	FORMATE	12.517	49	490	1	-1.30
2	3.65	CHLORIDE	0.050	117	973	1	0.46
3	8.43	NITRATE	0.128	66	1230	1	7.43
4	11.88		0.000	15	205	1	
		Totals	12.696	248	2897		

File: 96032031.d01 Sample: INSTR BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 581 TO 586.

Data Reprocessed On 04/01/1996 09:36:23

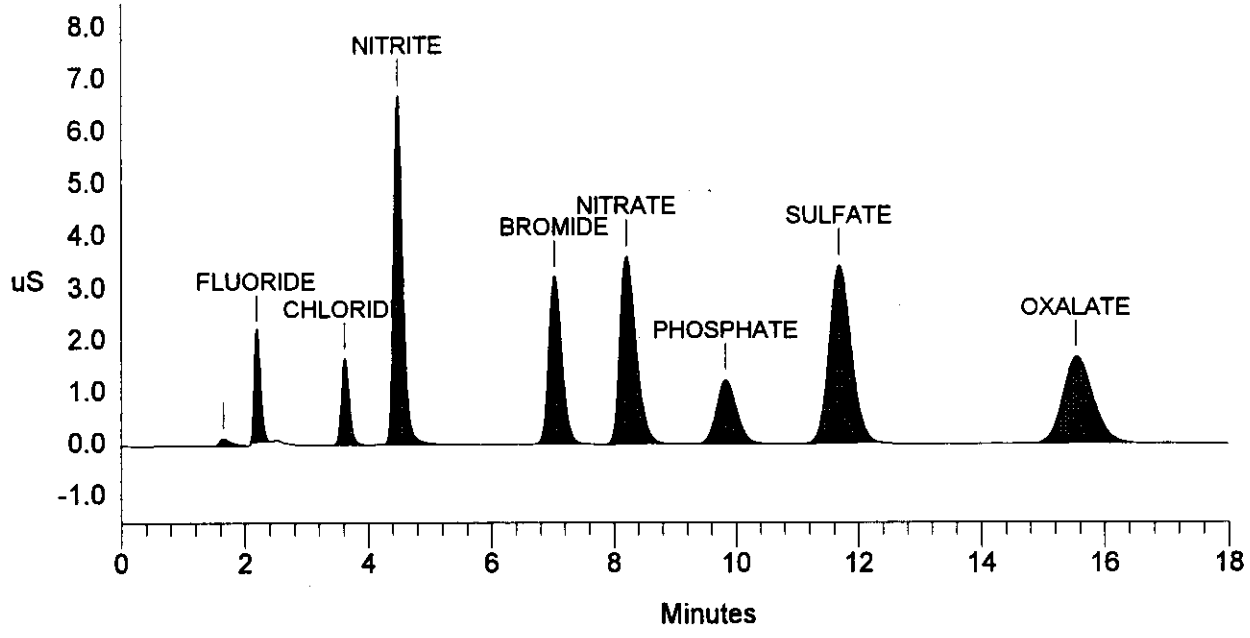
Sample Name: 133N9-A STD	Date: 03/20/1996 09:17:43
Data File : C:\DX\DATA\96032031.d02	
Method : C:\DX\METHOD\AS12A.MET	
ACI Address: 1 System: 1 Inject#: 2	Detector:CDM-1
Analyst : Column: AG4A-SC,AS4A-SC, SRS	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	5400	5Hz	0.00	18.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.65		0.000	147	1725	1	
2	2.18	FLUORIDE	61.458	2144	15260	1	0.00
3	3.62	CHLORIDE	88.816	1670	14393	1	-0.46
4	4.48	NITRITE	575.368	6698	69440	1	0.37
5	7.03	BROMIDE	609.195	3233	47351	1	2.68
6	8.22	NITRATE	646.878	3623	65759	1	4.67
7	9.83	PHOSPHATE	583.077	1243	28429	1	4.80
8	11.70	SULFATE	653.855	3443	86351	1	3.08
9	15.55	OXALATE	559.514	1674	56529	1	3.44
		Totals	3778.161	23874	385237		

File: 96032031.d02 Sample: 133N9-A STD



Data Reprocessed On 04/01/1996 09:36:26

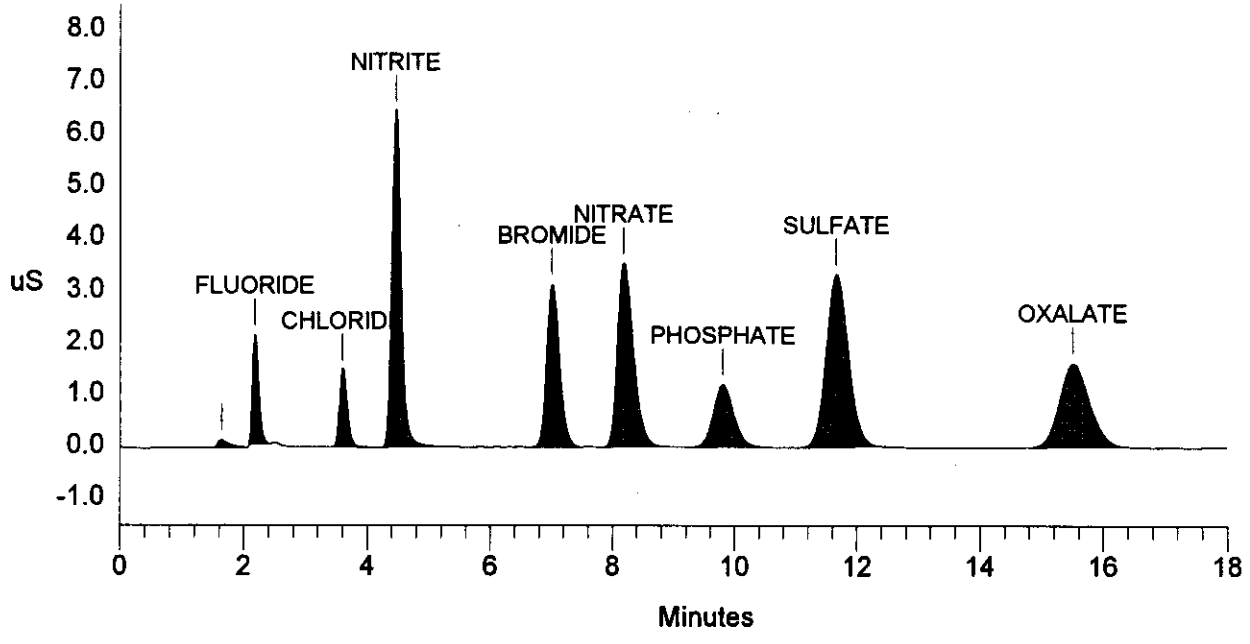
Sample Name: 133N9-A STD Date: 03/20/1996 09:42:13
Data File : C:\DX\DATA\96032031.d03
Method : C:\DX\METHOD\AS12A.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	5400	5Hz	0.00	18.00		50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.65		0.000	143	1753	1	
2	2.18	FLUORIDE	59.416	2104	14725	1	0.00
3	3.60	CHLORIDE	80.982	1476	13111	1	-0.92
4	4.47	NITRITE	556.022	6437	67020	1	0.00
5	7.02	BROMIDE	585.668	3110	45460	1	2.43
6	8.18	NITRATE	626.989	3505	63694	1	4.25
7	9.82	PHOSPHATE	563.335	1205	27434	1	4.62
8	11.67	SULFATE	627.593	3303	82778	1	2.79
9	15.52	OXALATE	535.958	1619	54079	1	3.22
		Totals	3635.964	22902	370053		

File: 96032031.d03 Sample: 133N9-A STD



Data Reprocessed On 04/01/1996 09:36:28

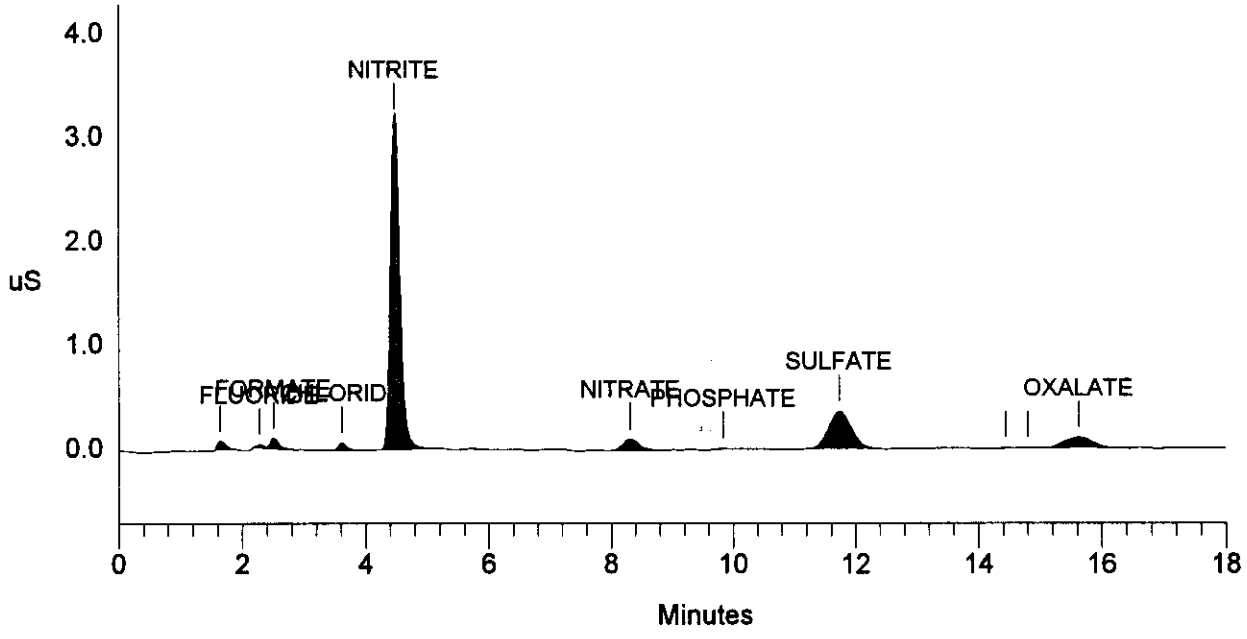
Sample Name: S96T000538 SAMPLE Date: 03/20/1996 11:21:42
Data File : C:\DX\DATA\96032031.d04
Method : C:\DX\METHOD\AS12A.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	10201	5400	5Hz	0.00	18.00		50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.63		0.000	77	701	1	
2	2.28	FLUORIDE	317.015	28	211	2	4.58
3	2.50	FORMATE	93139.377	95	875	2	-2.60
4	3.62	CHLORIDE	247.758	69	563	1	-0.46
5	4.47	NITRITE	29112.241	3172	33841	1	0.00
6	8.32	NITRATE	2044.423	107	1956	1	5.94
7	9.83	PHOSPHATE	846.017	11	97	1	4.80
8	11.73	SULFATE	7463.722	357	9018	1	3.38
11	15.63	OXALATE	3654.018	101	3041	1	3.99
		Totals	136824.571	4015	50301		

File: 96032031.d04 Sample: S96T000538 SAMPLE



Data Reprocessed On 04/01/1996 09:36:30

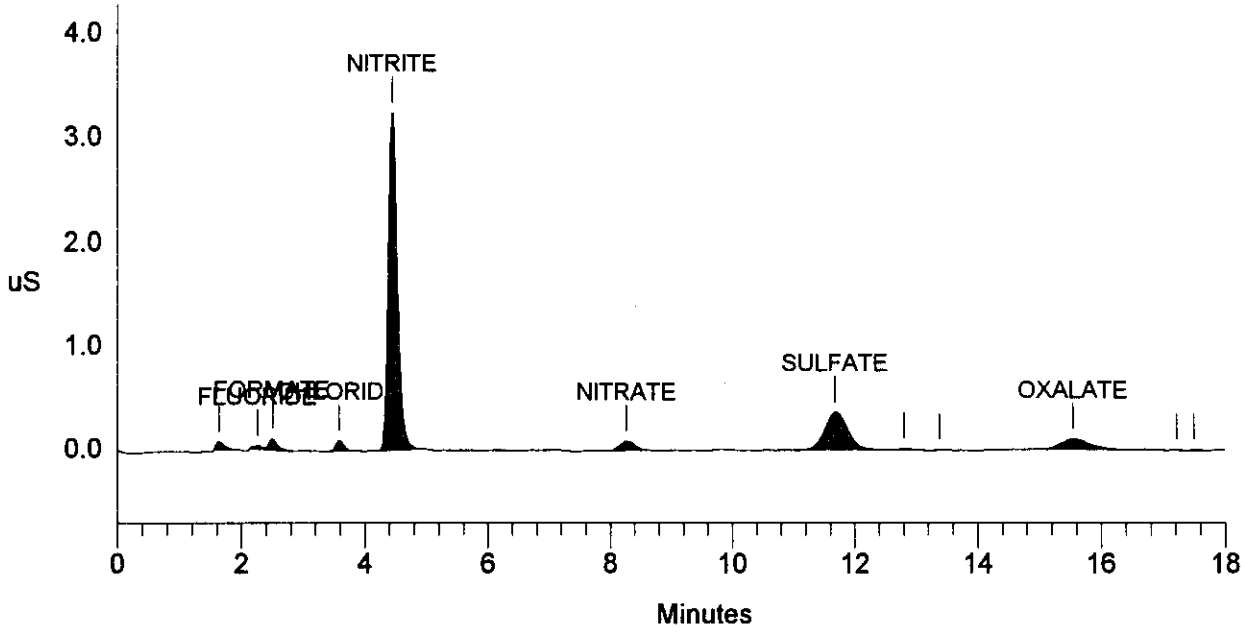
Sample Name: S96T000538 DUP Date: 03/20/1996 11:48:20
Data File : C:\DX\DATA\96032031.d05
Method : C:\DX\METHOD\AS12A.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	10201	5400	5Hz	0.00	18.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.63		0.000	78	754	1	
2	2.27	FLUORIDE	347.385	33	287	2	3.82
3	2.50	FORMATE	85085.773	106	975	2	-2.60
4	3.58	CHLORIDE	428.137	101	842	1	-1.38
5	4.45	NITRITE	28678.143	3241	33313	1	-0.37
6	8.27	NITRATE	1581.067	91	1498	1	5.31
7	11.68	SULFATE	7863.196	368	9534	1	2.94
8	12.80		0.000	7	50	1	
10	15.55	OXALATE	3704.520	100	3091	1	3.44
11	17.22		0.000	8	73	1	
12	17.50		0.000	7	70	1	
		Totals	127688.221	4140	50488		

File: 96032031.d05 Sample: S96T000538 DUP



Data Reprocessed On 04/01/1996 09:36:32

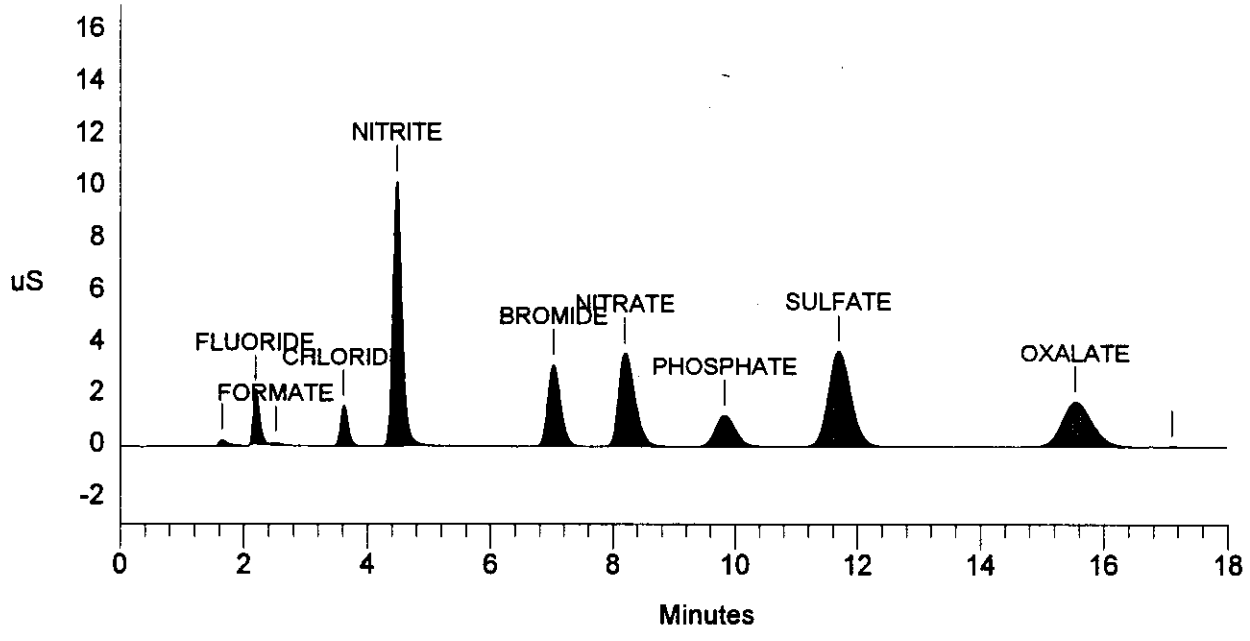
Sample Name: S96T000538 SPIKE Date: 03/20/1996 13:43:15
Data File : C:\DX\DATA\96032031.d06
Method : C:\DX\METHOD\AS12A.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A-SC,AS4A-SC, SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	10201	5400	5Hz	0.00	18.00	50

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.65		0.000	229	2509	1	
2	2.18	FLUORIDE	6077.245	2067	14923	3	0.00
3	2.52	FORMATE	69512.463	120	1186	4	-1.95
4	3.62	CHLORIDE	8386.639	1564	13446	1	-0.46
5	4.48	NITRITE	86830.238	10213	105392	1	0.37
6	7.03	BROMIDE	60076.953	3164	46195	1	2.68
7	8.20	NITRATE	65945.259	3623	66388	1	4.46
8	9.83	PHOSPHATE	57156.697	1211	27563	1	4.80
9	11.70	SULFATE	71809.002	3735	94147	1	3.08
10	15.55	OXALATE	59370.349	1747	59478	1	3.44
11	17.10		0.000	13	165	1	
		Totals	485164.845	27685	431392		

File: 96032031.d06 Sample: S96T000538 SPIKE



96032931.003 → 001

LABCORE Data Entry Template for Worklist# 6888

Analyst: VLM **Instrument:** IC00 IC01 **Book#** 133N9-C

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 FB IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T000855	0		@IC-01	LIQUID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T000855	0		@IC-01	LIQUID		

Final page for worklist # 6888

Valerie L Massie 03-29-96
Analyst Signature **Date**

Analyst Signature **Date**

Exported 4/1/96
In Shell
Uploaded 4/4/96

Data Entry Comments:
S96T000855 had alot of rusty solids in liquid. sample + dup filtered before analyed. —— VMassie 03-29-96

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 6888

Analyst: vlm **Instrument:** IC01 **Book#** 133N9C

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 FB IC. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	3.61e-01	0.360	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	59	5.96e+01	101.020	% Recovery
2	CCV			0	@IC-QC	CL	QC	79	7.72e+01	97.720	% Recovery
2	CCV			0	@IC-QC	NO2	QC	534	5.50e+02	103.000	% Recovery
2	CCV			0	@IC-QC	BR	QC	575	5.74e+02	99.830	% Recovery
2	CCV			0	@IC-QC	NO3	QC	614	6.31e+02	102.770	% Recovery
2	CCV			0	@IC-QC	PO4	QC	546	5.38e+02	98.530	% Recovery
2	CCV			0	@IC-QC	SO4	QC	631	6.38e+02	101.110	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	504	5.25e+02	104.170	% Recovery
3	SAMPLE	S96T000855		0	@IC-01	F-02	LIQUID	N/A	9.600e-02	1.300e-002	ug/mL
3	SAMPLE	S96T000855		0	@IC-01	CL-02	LIQUID	N/A	1.498e+01	1.700e-002	ug/mL
3	SAMPLE	S96T000855		0	@IC-01	NO2-02	LIQUID	N/A	6.320e-01	0.107	ug/mL
3	SAMPLE	S96T000855		0	@IC-01	NO3-02	LIQUID	N/A	1.567e+00	0.140	ug/mL
3	SAMPLE	S96T000855		0	@IC-01	PO4-02	LIQUID	N/A	4.590e-01	0.120	ug/mL
3	SAMPLE	S96T000855		0	@IC-01	SO4-02	LIQUID	N/A	1.342e+00	0.136	ug/mL
3	SAMPLE	S96T000855		0	@IC-01	OXALATE2	LIQUID	N/A <	1.050e-01	0.105	ug/mL
4	DUP	S96T000855		0	@IC-01	F-02	LIQUID	9.60e-02	1.08e-01	11.760	RPD
4	DUP	S96T000855		0	@IC-01	CL-02	LIQUID	1.50e+01	1.50e+01	0.000	RPD
4	DUP	S96T000855		0	@IC-01	NO2-02	LIQUID	6.32e-01	6.22e-01	1.590	RPD
4	DUP	S96T000855		0	@IC-01	NO3-02	LIQUID	1.57e+00	1.60e+00	1.890	RPD
4	DUP	S96T000855		0	@IC-01	PO4-02	LIQUID	4.59e-01	4.18e-01	9.350	RPD
4	DUP	S96T000855		0	@IC-01	SO4-02	LIQUID	1.34e+00	1.28e+00	4.580	RPD
4	DUP	S96T000855		0	@IC-01	OXALATE2	LIQUID	<1.05e-1	<1.05e-1		RPD

Final page for worklist# 6888

Analyst Signature **Date** **Analyst Signature** **Date**

Janis Frye 5/10/96
Reviewer Signature **Date**

Val. 5/10/96 JMF

Units shown for QC (BLK/BKG) may not reflect the actual units.

A-0010-IC DATA FILE/WORKLIST RESOLUTION 04-Apr-96

Worklist#: 6888

	Seq	Type	Sample #
=>	1	CCB	
=>	2	CCV	
=>	3	SAMPLE	S96T000855
=>	4	DUP	S96T000855

Data File: 6888MAR.CSV

Seq#	Data File	Sample Name	Dilution
1	96032931.d03	INSTR BLANK	1.00
2	96032931.d04	133N9-C STD	101.00
	96032931.d05	S96T000855 SAMPL	101.00
3	96032931.d06	S96T000855 SAMPL	1.00
4	96032931.d07	S96T000855 DUP	1.00

Save(F4) Abort(Shift-F3) ListFiles(Shift-F1) UploadFile(F8)

Data Reprocessed On 07/29/1996 14:18:28

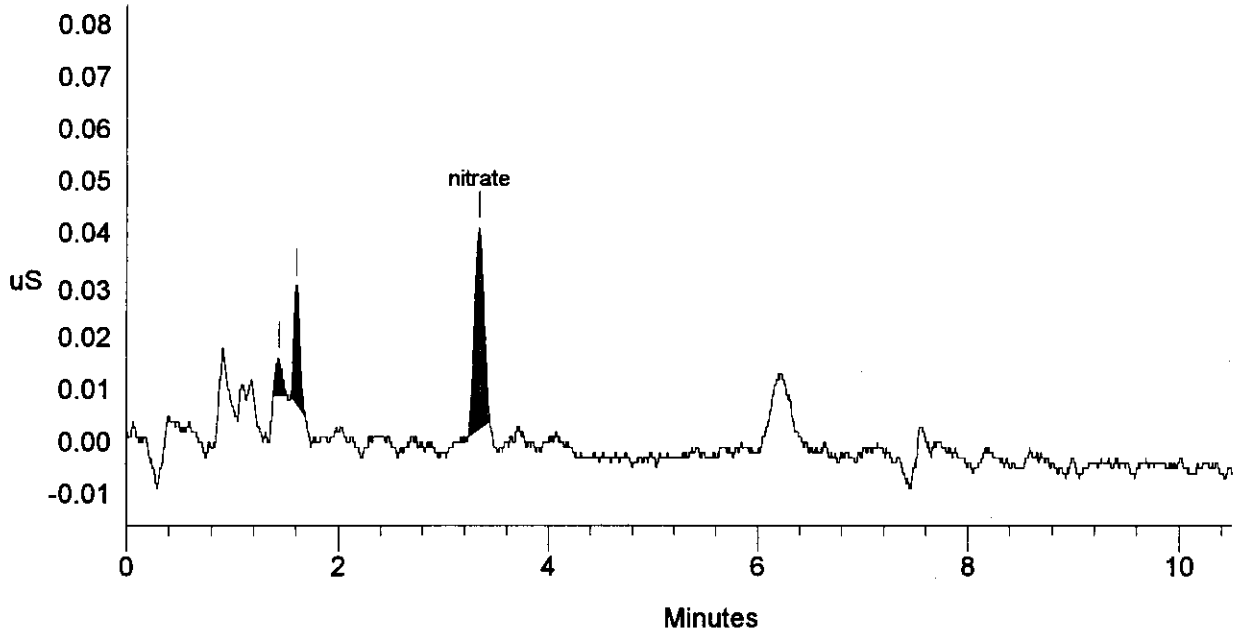
Sample Name: INSTR BLANK Date: 03/29/1996 09:34:14
Data File : C:\DX\DATA\96032931.d03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : [illegible] for VRM 7/29/96 Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
3	3.34	nitrate	0.361	39	234	1	6.37
		Totals	0.361	39	234		

File: 96032931.d03 Sample: INSTR BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 590 TO 594.

Data Reprocessed On 07/29/1996 14:18:31

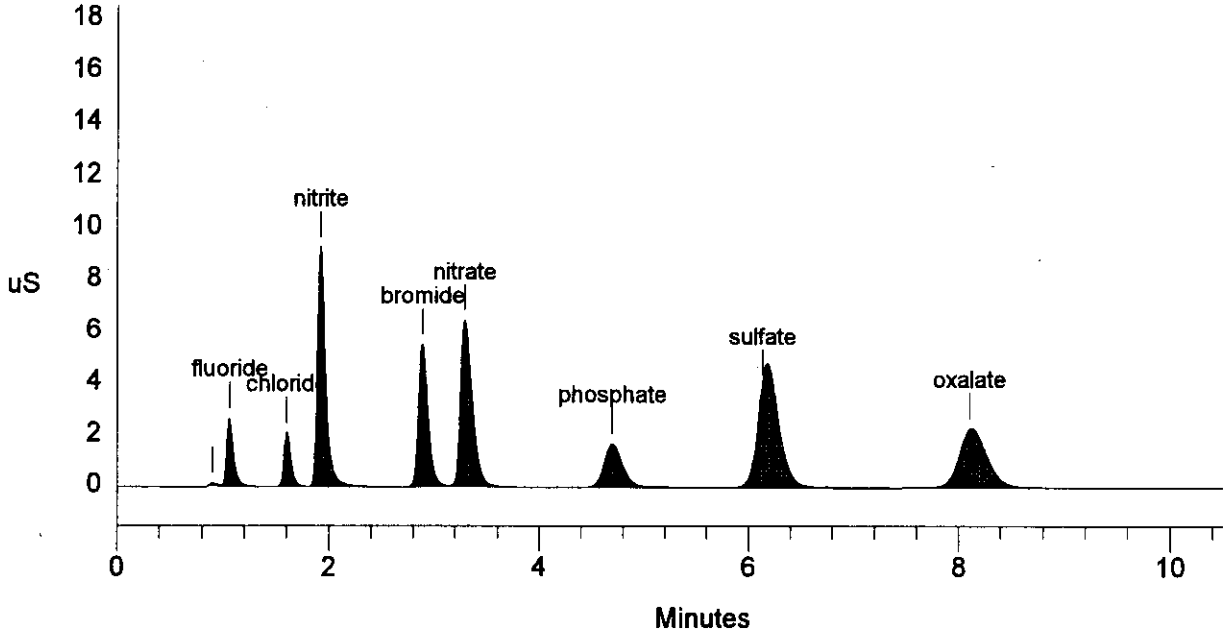
Sample Name: 133N9-C STD Date: 03/29/1996 10:47:36
Data File : C:\DX\DATA\96032931.d04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	98	438	2	
2	1.06	fluoride	59.611	2620	11629	2	0.95
3	1.60	chloride	77.188	2093	9593	1	0.00
4	1.92	nitrite	550.120	9251	49731	1	-1.03
5	2.89	bromide	574.166	5500	34298	1	2.61
6	3.29	nitrate	630.596	6397	49456	1	4.67
7	4.69	phosphate	538.095	1698	21470	1	0.57
8	6.13	sulfate	637.593	3934	65739	1	0.88
9	8.11	oxalate	525.409	2280	42424	1	2.01
		Totals	3592.778	33871	284777		

File: 96032931.d04 Sample: 133N9-C STD



Data Reprocessed On 07/29/1996 14:18:33

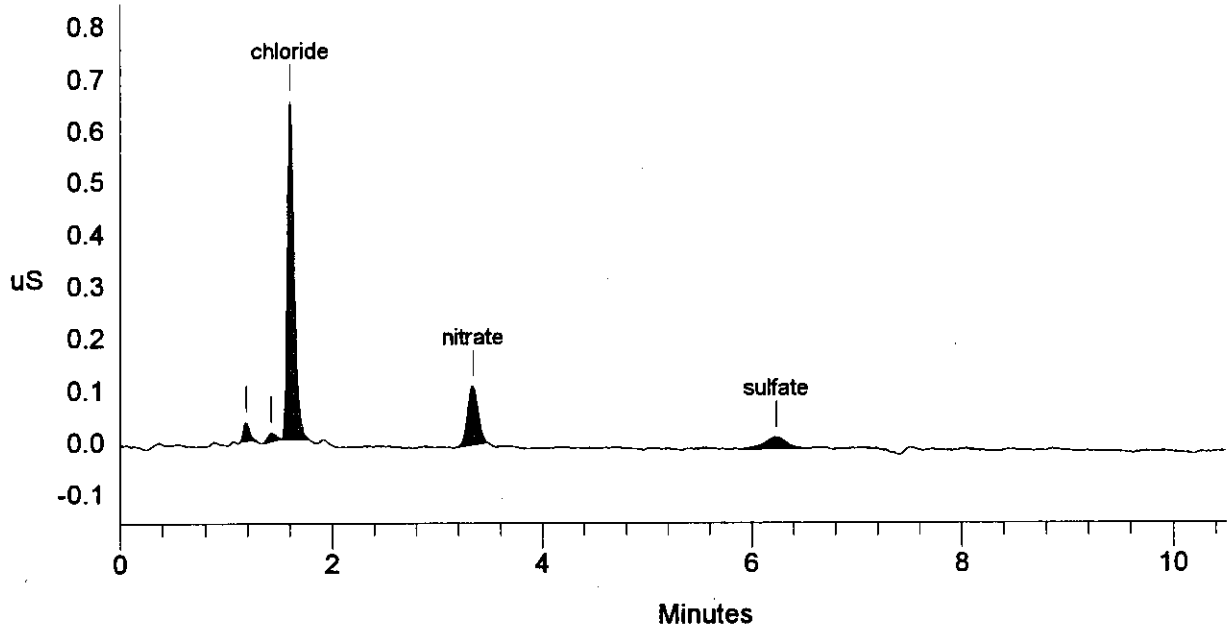
Sample Name: S96T000855 SAMPLE Date: 03/29/1996 11:10:45
Data File : C:\DX\DATA\96032931.d05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.19		0.000	36	142	1	
3	1.61	chloride	24.098	650	2890	1	0.42
4	3.34	nitrate	43.116	112	781	1	6.37
5	6.24	sulfate	26.008	21	327	1	2.63
		Totals	93.222	820	4139		

File: 96032931.d05 Sample: S96T000855 SAMPLE



Data Reprocessed On 07/29/1996 14:18:35

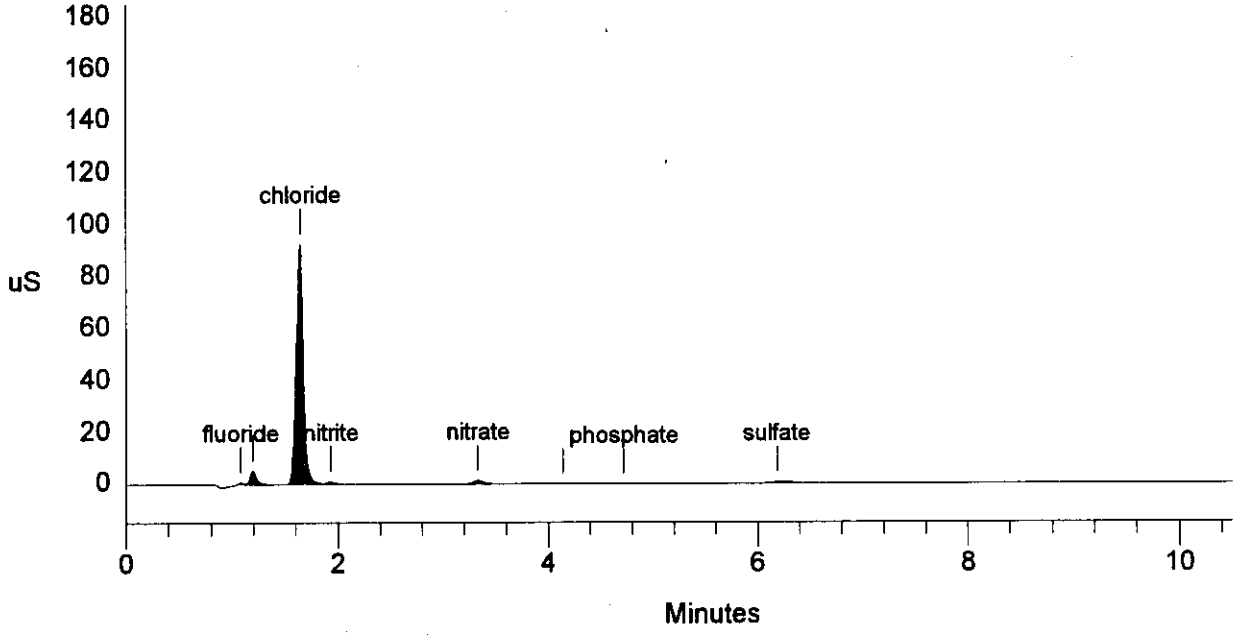
Sample Name: S96T000855 SAMPLE Date: 03/29/1996 11:25:09
Data File : C:\DX\DATA\96032931.d06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.08	fluoride	0.096	572	1655	2	2.86
2	1.19		0.000	5086	20849	2	
3	1.65	chloride	14.980	92463	421582	1	2.92
4	1.93	nitrite	0.632	865	3763	1	-0.34
5	3.33	nitrate	1.567	1425	10225	1	5.94
6	4.14		0.000	18	135	1	
7	4.72	phosphate	0.459	31	414	1	1.14
8	6.19	sulfate	1.342	687	11892	1	1.75
		Totals	19.076	101147	470515		

File: 96032931.d06 Sample: S96T000855 SAMPLE



Data Reprocessed On 07/29/1996 14:18:37

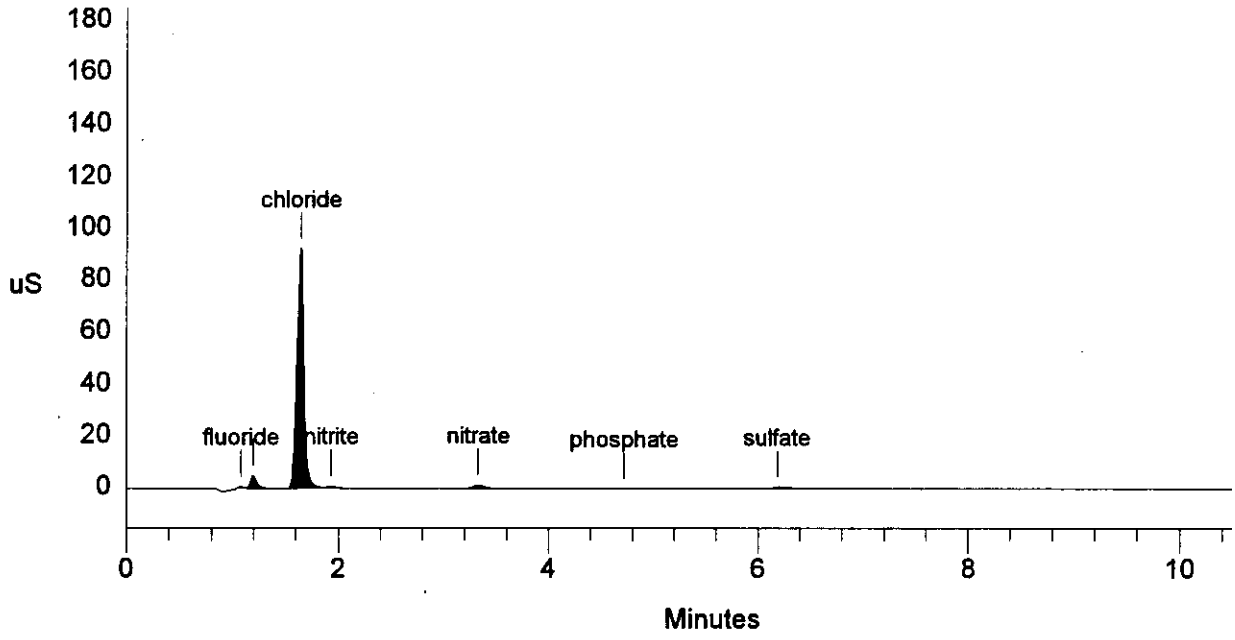
Sample Name: S96T000855 DUP Date: 03/29/1996 11:43:27
Data File : C:\DX\DATA\96032931.d07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.08	fluoride	0.108	607	1885	2	2.86
2	1.19		0.000	5105	21081	2	
3	1.65	chloride	15.001	92482	419096	1	2.92
4	1.93	nitrite	0.622	862	3668	1	-0.34
5	3.33	nitrate	1.604	1480	10531	1	5.94
6	4.72	phosphate	0.418	25	237	1	1.14
7	6.19	sulfate	1.278	691	11207	1	1.75
		Totals	19.030	101252	467704		

File: 96032931.d07 Sample: S96T000855 DUP



96040411.DUS → 9

LABCORE Data Entry Template for Worklist# 7276

Analyst: SLH **Instrument:** IC00 IC01 **Book#** 133N9-C

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: Rerun for Cl due to std fail. Use 1111 df. JMF For C 106

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T001023	0		@IC-01	LIQUID	96000174	C-106 GRAB
		Analytes Requested:			CL-02			
4	DUP	S96T001023	0		@IC-01	LIQUID		
5	SPK	S96T001023	0		@IC-01	LIQUID		

Final page for worklist # 7276

Sandra L Hood Boatright
Analyst Signature **Date** 4-5-96

Analyst Signature **Date**

Shell

Data Entry Comments: ~~Corrected sam#~~ Spike .100ml 133N9-C

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 7276

Analyst: slh **Instrument:** IC01 **Book#** 133N9C

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: Rerun for Cl due to std fail. Use 1111 df. JMF C-106

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	59	6.30e+01	106.780	% Recovery
2	CCV			0	@IC-QC	CL	QC	79	7.86e+01	99.494	% Recovery
2	CCV			0	@IC-QC	NO2	QC	534	5.53e+02	103.558	% Recovery
2	CCV			0	@IC-QC	BR	QC	575	5.79e+02	100.696	% Recovery
2	CCV			0	@IC-QC	NO3	QC	614	6.33e+02	103.094	% Recovery
2	CCV			0	@IC-QC	PO4	QC	546	5.42e+02	99.267	% Recovery
2	CCV			0	@IC-QC	SO4	QC	631	6.43e+02	101.902	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	504	5.34e+02	105.952	% Recovery
3	SAMPLE	S96T001023		0	@IC-01	CL-02	LIQUID	N/A	3.204e+02	36.060	ug/mL
4	DUP	S96T001023		0	@IC-01	CL-02	LIQUID	3.20e+02	3.17e+02	0.942	RPD
5	SPK	S96T001023		0	@IC-01	CL-02	LIQUID	79	7.28e+01	92.152	% Recovery

Comments Section:

Comments for sample# S96T001023 **and test** @IC-01 .

Cl std failed rerun ~~necessary.jmf~~
Cl std failed ~~rerun~~ necessary.jmf
~~Cl std~~ failed rerun necessary.jmf

This comment was carried over from the original run. The standard is acceptable on this run. [signature] 8/2/96

Final page for worklist# 7276

Analyst Signature **Date** **Analyst Signature** **Date**

[signature] 4/22/96
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

A-0010-1 WORKLIST DATA ENTRY USING SODIUM::LIMS3 19-Apr-96

PROTOCOL DETAIL INFORMATION

Seq: 3 Type: SAMPLE Sample#: S96T001023 Aliquot: Rep: 0

Code	Name	Raw Result	R	Result	Dil/Conc	D	C	Det Limit
CL-02	Chloride-IC-	320.42		3.204e+02	2121.00	*		36.0570

<Alt-Enter> Clear from cursor/move to next <Tab> Move to next

Defaults(F5) ClearRow(F6) Save(F3)

Data Reprocessed On 04/09/1996 11:05:49

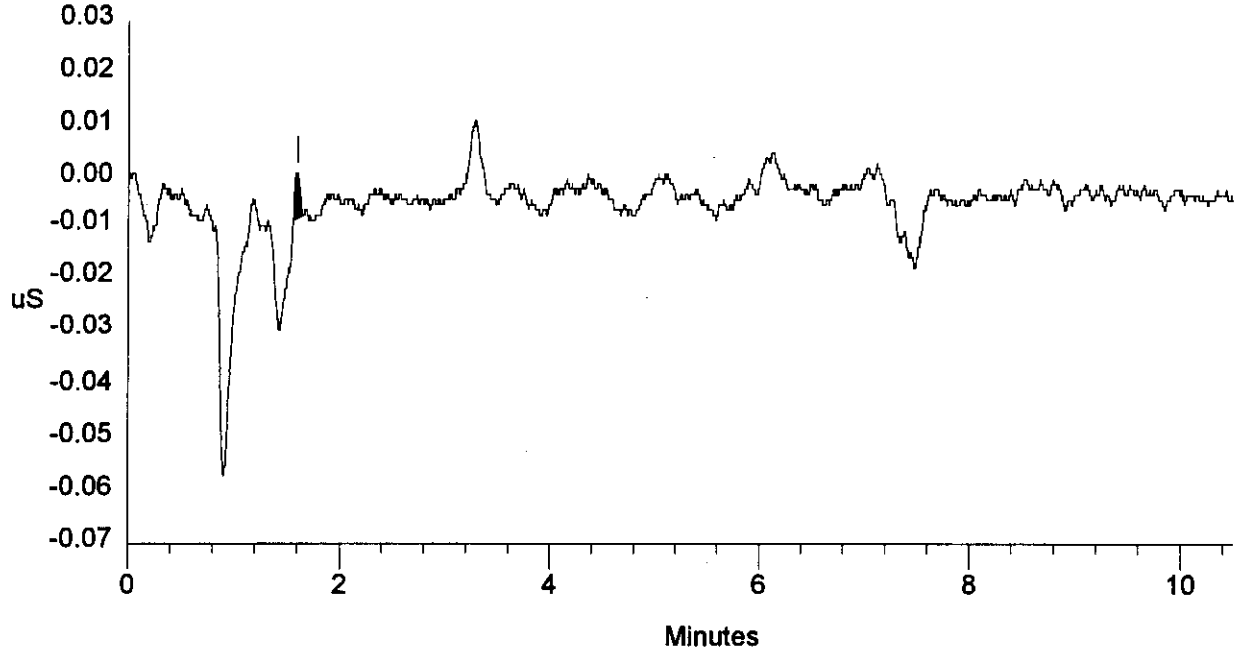
Sample Name: BLK	Date: 04/04/1996 22:51:24
Data File : C:\DX\DATA\96040411.d05	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 5	Detector:CDM-1
Analyst : Smith SLH 4/11/96	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

File: 96040411.d05 Sample: BLK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 598 TO 602.

Data Reprocessed On 04/09/1996 11:05:51

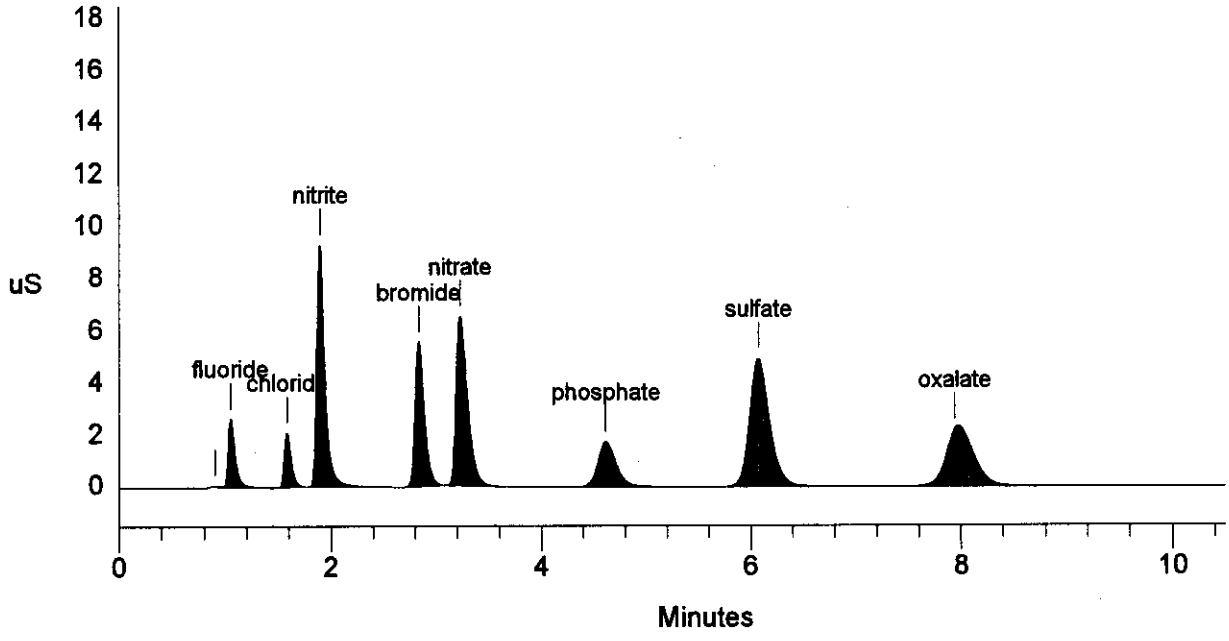
Sample Name: STD 133N9-C Date: 04/04/1996 23:19:20
Data File : C:\DX\DATA\96040411.d06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	50	221	2	
2	1.05	fluoride	62.997	2645	12314	2	0.32
3	1.59	chloride	78.570	2120	9769	1	-0.83
4	1.90	nitrite	553.472	9295	50050	1	-2.06
5	2.83	bromide	578.847	5544	34595	1	-2.30
6	3.23	nitrate	633.245	6512	49678	1	-4.25
7	4.61	phosphate	542.173	1758	21646	1	-1.14
8	6.08	sulfate	642.700	4944	66294	1	0.00
9	7.95	oxalate	534.194	2240	43148	1	0.00
		Totals	3626.198	35108	287716		

File: 96040411.d06 Sample: STD 133N9-C



Data Reprocessed On 04/09/1996 11:05:53

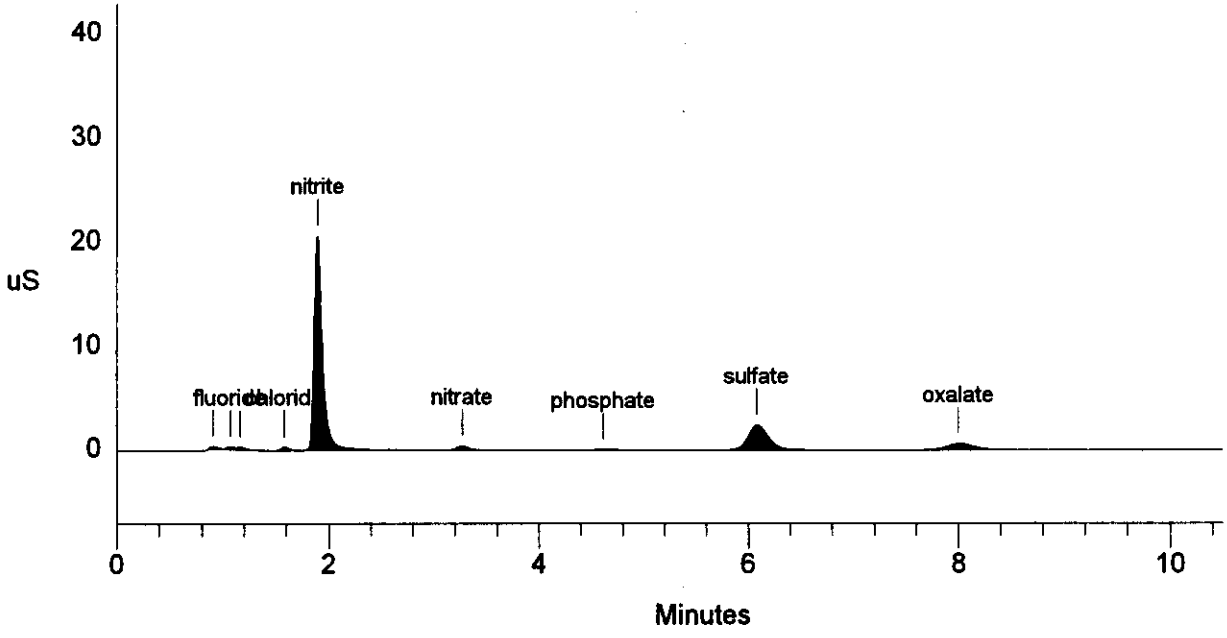
Sample Name: S96T001023 Date: 04/04/1996 23:37:48
Data File : C:\DX\DATA\96040411.d07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	267	1338	2	
2	1.07	fluoride	194.512	306	1567	2	2.22
3	1.17		0.000	275	1636	2	
4	1.58	chloride	320.420	362	1785	1	-1.25
5	1.90	nitrite	25595.787	20630	114221	1	-2.06
6	3.27	nitrate	1508.374	429	3131	1	-3.07
7	4.61	phosphate	1144.820	63	759	1	-1.14
8	6.08	sulfate	7102.459	2426	33455	1	0.00
9	8.00	oxalate	3274.138	643	12132	1	0.67
		Totals	39140.511	25400	170025		

File: 96040411.d07 Sample: S96T001023



Data Reprocessed On 04/09/1996 11:05:55

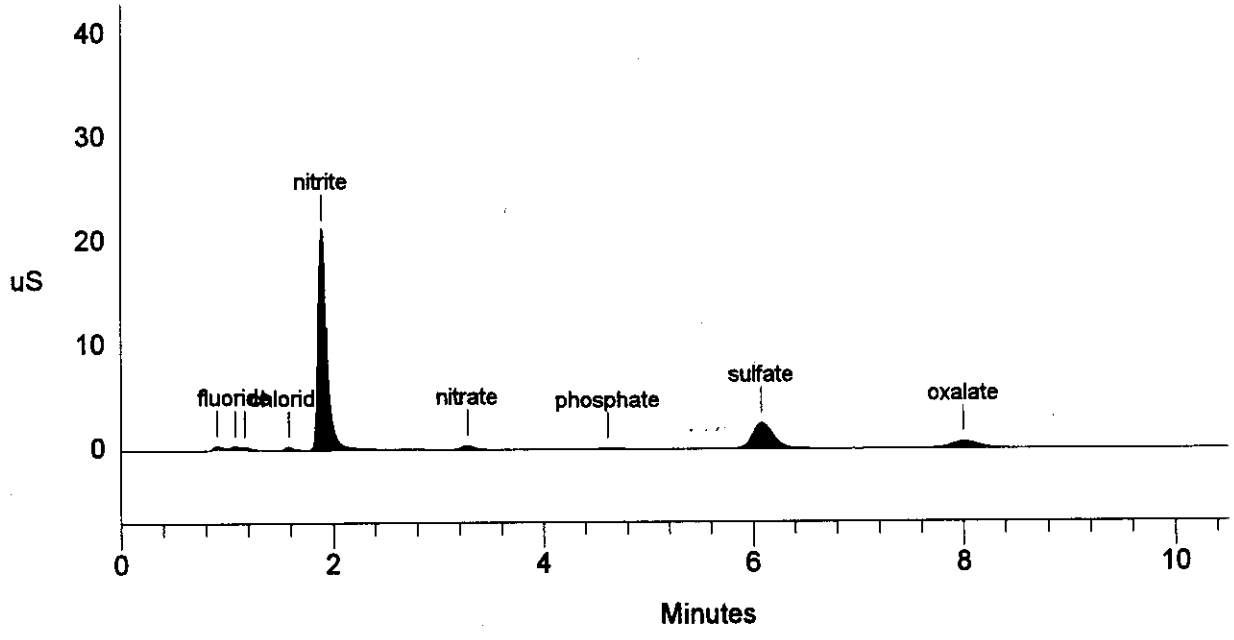
Sample Name: S96T001023 DUP Date: 04/04/1996 23:58:22
Data File : C:\DX\DATA\96040411.d08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	268	1313	2	
2	1.07	fluoride	200.495	307	1623	2	2.22
3	1.17		0.000	276	1525	2	
4	1.58	chloride	317.357	350	1767	1	-1.25
5	1.89	nitrite	27021.733	21149	120856	1	-2.41
6	3.27	nitrate	1442.391	403	2874	1	-2.87
7	4.61	phosphate	1146.155	61	762	1	-1.14
8	6.08	sulfate	7333.990	2522	34635	1	0.00
9	8.00	oxalate	3179.835	655	11766	1	0.67
		Totals	40641.956	25991	177121		

File: 96040411.d08 Sample: S96T001023 DUP



Data Reprocessed On 04/09/1996 11:05:58

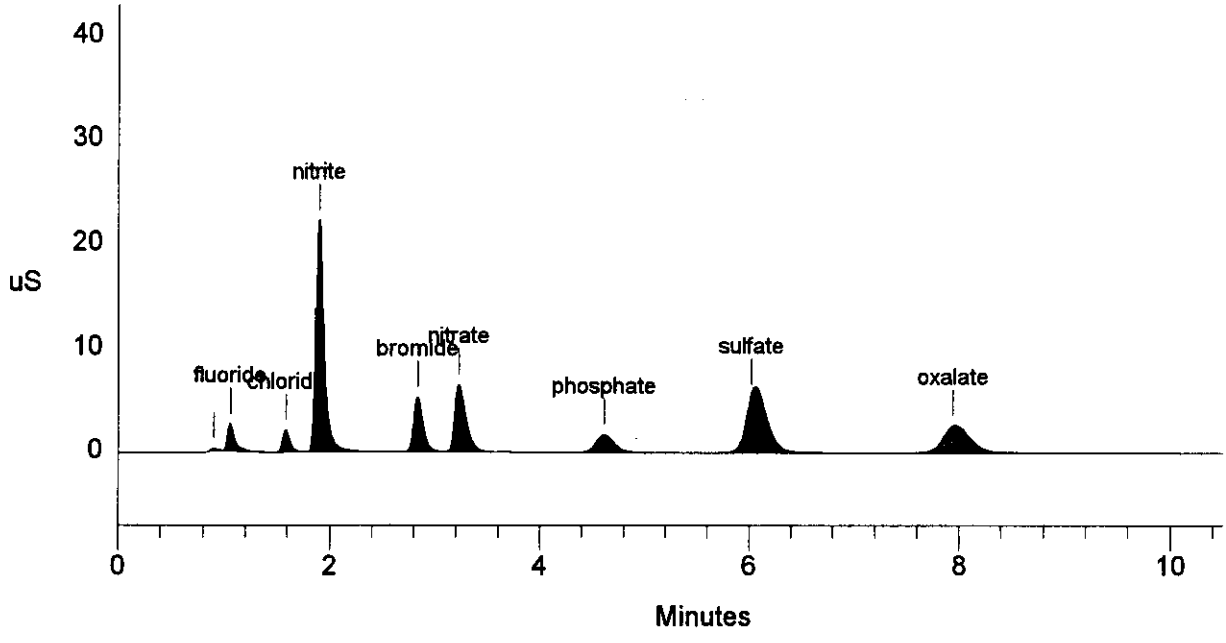
Sample Name: S96T001023 SPK Date: 04/05/1996 00:13:36
Data File : C:\DX\DATA\96040411.d09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	207	927	2	
2	1.06	fluoride	1434.173	2644	13389	2	0.95
3	1.59	chloride	1791.147	2158	10627	1	-0.83
4	1.90	nitrite	27868.788	22208	124805	1	-2.06
5	2.83	bromide	11721.745	5310	33284	1	-2.30
6	3.23	nitrate	13030.130	6489	48607	1	-4.25
7	4.61	phosphate	11224.425	1720	21315	1	-1.14
8	6.03	sulfate	17413.445	5617	86680	1	-0.88
9	7.95	oxalate	12696.505	2632	48962	1	0.00
		Totals	97180.358	48985	388595		

File: 96040411.d09 Sample: S96T001023 SPK



05/09/96 09:17
A-0004-1

96051071-D04 → 8

LABCORE Data Entry Template for Worklist# 7407

Analyst: EAL **Instrument:** IC00 IC01 **Book#** 133N9-F

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 IC try a 2121 dilution. nds

RUSH

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T000563	0		@IC-01	LIQUID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T000563	0		@IC-01	LIQUID		
5	SPK	S96T000563	0		@IC-01	LIQUID		

Final page for worklist # 7407

A. Lambel 05.10.96

Analyst Signature **Date**

Analyst Signature **Date**

Shell
Uploaded 5/10/96 MSmith
Validated 5/10/96 MSmith

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 7407

Analyst: **Instrument:** IC01 **Book#** 133N9-F

Method: LA-533-105 Rev/Mod D1

Worklist Comment: C-106 IC try a 2121 dilution. nds

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	5.55e-01	0.555	ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	2.05e-01	0.205	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.63e+01	95.424	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.14e+01	90.380	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.37e02	5.26e+02	97.952	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	5.45e+02	94.783	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	5.77e+02	93.974	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.29e+02	96.886	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.03e+02	95.563	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.09e02	4.84e+02	95.088	% Recovery
3	SAMPLE	S96T000563		0	@IC-01	F-02	LIQUID	N/A	2.355e+02	27.570	ug/mL
3	SAMPLE	S96T000563		0	@IC-01	CL-02	LIQUID	N/A	3.042e+02	36.060	ug/mL
3	SAMPLE	S96T000563		0	@IC-01	NO2-02	LIQUID	N/A	2.908e+04	226.900	ug/mL
3	SAMPLE	S96T000563		0	@IC-01	NO3-02	LIQUID	N/A	1.166e+03	296.900	ug/mL
3	SAMPLE	S96T000563		0	@IC-01	PO4-02	LIQUID	N/A	6.490e+02	252.200	ug/mL
3	SAMPLE	S96T000563		0	@IC-01	SO4-02	LIQUID	N/A	7.764e+03	288.200	ug/mL
3	SAMPLE	S96T000563		0	@IC-01	OXALATE2	LIQUID	N/A	3.081e+03	222.700	ug/mL
4	DUP	S96T000563		0	@IC-01	F-02	LIQUID	2.36e+02	2.30e+02	2.575	RPD
4	DUP	S96T000563		0	@IC-01	CL-02	LIQUID	3.04e+02	3.26e+02	6.984	RPD
4	DUP	S96T000563		0	@IC-01	NO2-02	LIQUID	2.91e+04	2.83e+04	2.787	RPD
4	DUP	S96T000563		0	@IC-01	NO3-02	LIQUID	1.17e+03	1.14e+03	2.597	RPD
4	DUP	S96T000563		0	@IC-01	PO4-02	LIQUID	6.49e+02	6.09e+02	6.359	RPD
4	DUP	S96T000563		0	@IC-01	SO4-02	LIQUID	7.76e+03	7.61e+03	1.952	RPD
4	DUP	S96T000563		0	@IC-01	OXALATE2	LIQUID	3.08e+03	3.09e+03	0.324	RPD
5	SPK	S96T000563		0	@IC-01	F-02	LIQUID	5.90e01	6.40e+01	108.475	% Recovery
5	SPK	S96T000563		0	@IC-01	CL-02	LIQUID	7.90e01	7.24e+01	91.646	% Recovery
5	SPK	S96T000563		0	@IC-01	NO2-02	LIQUID	5.37e02	5.51e+02	102.607	% Recovery
5	SPK	S96T000563		0	@IC-01	NO3-02	LIQUID	6.14e02	5.80e+02	94.463	% Recovery
5	SPK	S96T000563		0	@IC-01	PO4-02	LIQUID	5.46e02	5.34e+02	97.802	% Recovery
5	SPK	S96T000563		0	@IC-01	SO4-02	LIQUID	6.31e02	6.24e+02	98.891	% Recovery
5	SPK	S96T000563		0	@IC-01	OXALATE2	LIQUID	5.09e02	5.01e+02	98.428	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 7407

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit

Final page for worklist# 7407

Analyst Signature Date

Analyst Signature Date

Joel Smith 5/10/96
Reviewer Signature Date

Validated 5/10/96 JDS

Units shown for QC (BLK/BKG) may not reflect the actual units.

```
==============================================================================
| Sample Name: INSTR. BLANK                    Date: 05/10/1996 11:00:09      |
| Data File  : C:\DX\DATA\96051071.D04                                        |
| Method     : C:\DX\METHOD\KIT.MET                                           |
| ACI Address: 1  System: 1  Inject#: 4                  Detector:CDM-1       |
| Analyst    : A. Lambel      Column: AG4A/AS4A anion column                  |
==============================================================================
```

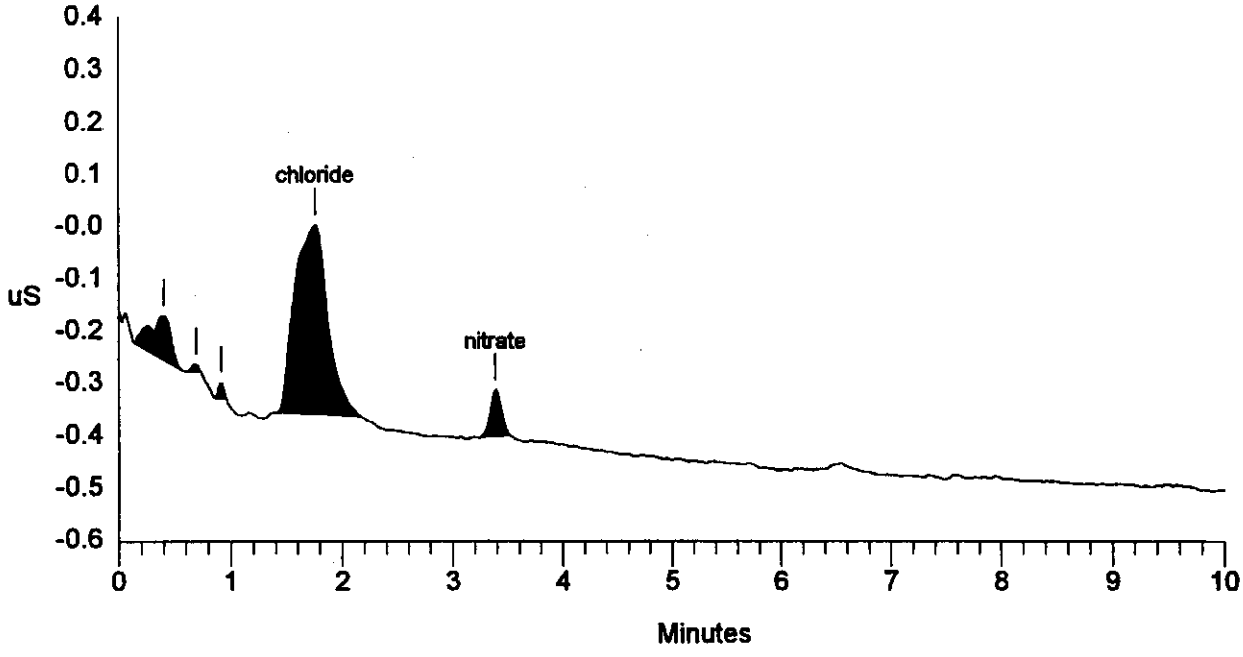
5-10-96

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.40		0.000	84	1108	1	
4	1.76	chloride	0.555	363	7449	1	6.45
5	3.39	nitrate	0.205	88	629	1	2.21
		Totals	0.760	535	9187		

File: 96051071.D04 Sample: INSTR. BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 606 TO 610.

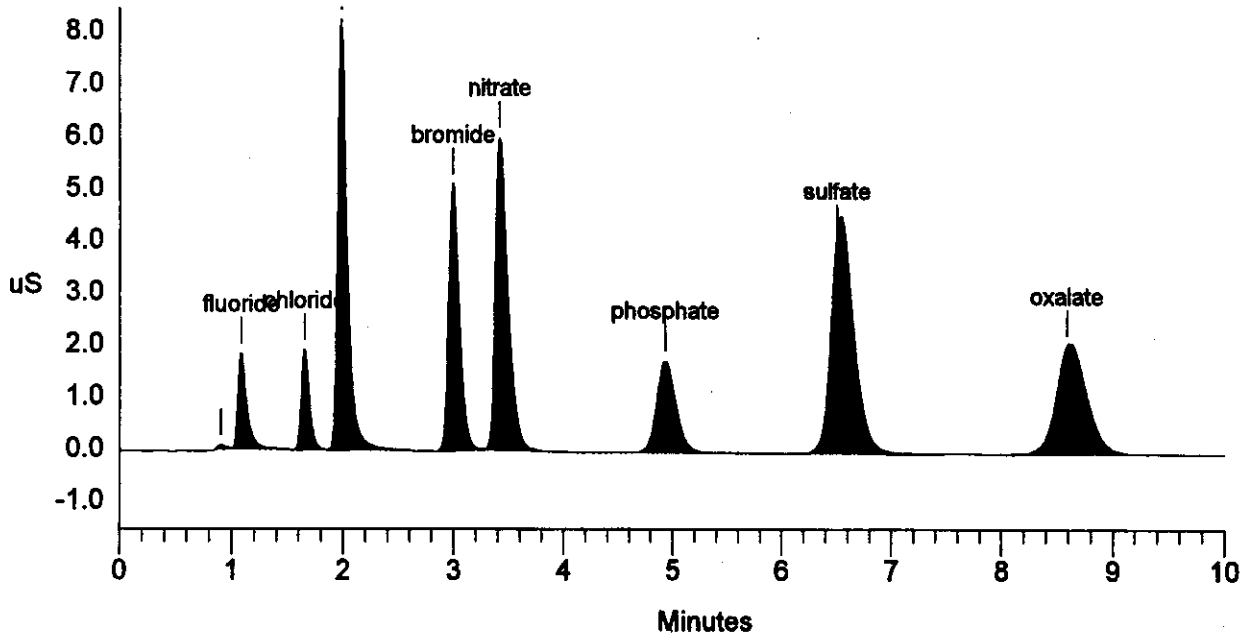
Sample Name: 133N9-F STD. Date: 05/10/1996 11:13:34
Data File : C:\DX\DATA\96051071.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	79	388	2	
2	1.09	fluoride	56.262	1828	10050	2	1.88
3	1.65	chloride	71.375	1923	9510	1	0.00
4	1.99	nitrite	525.937	8261	48856	1	-1.32
5	2.99	bromide	544.634	5116	33933	1	1.13
6	3.42	nitrate	577.017	5993	47134	1	3.22
7	4.93	phosphate	528.732	1767	21558	1	0.00
8	6.51	sulfate	603.240	4093	64445	1	0.00
9	8.59	oxalate	483.503	2081	40415	1	0.63
		Totals	3390.700	31142	276290		

File: 96051071.D05 Sample: 133N9-F STD.



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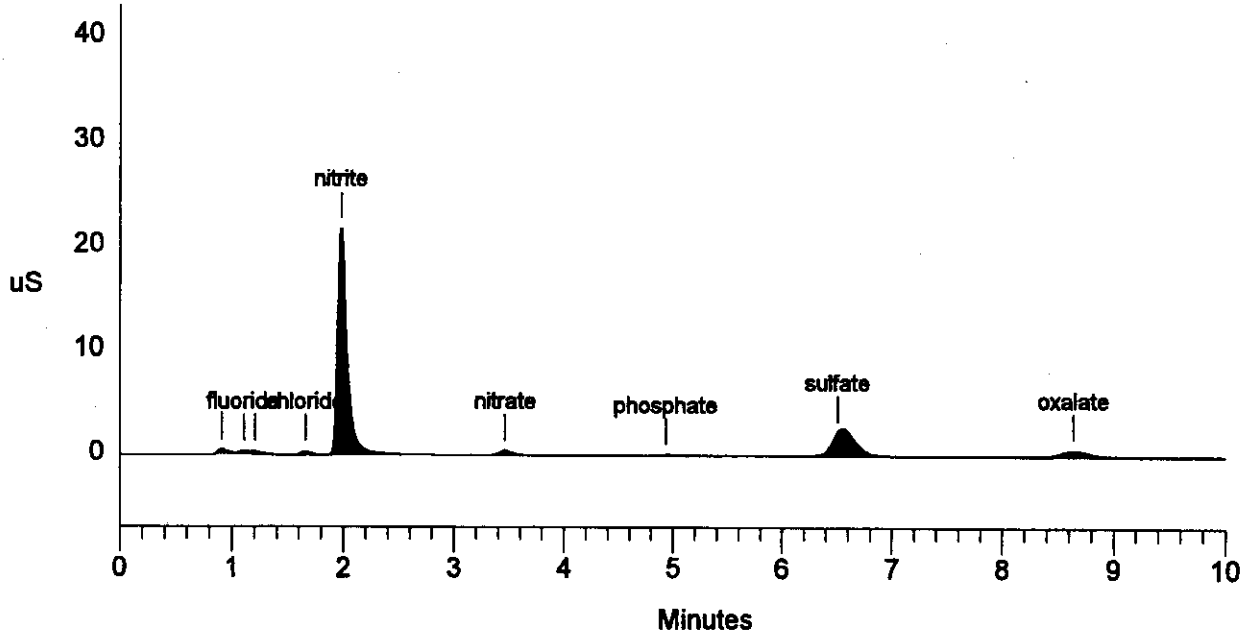
==============================================================================
| Sample Name: S96T000563                    Date: 05/10/1996 11:42:37       |
| Data File  : C:\DX\DATA\96051071.D06                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 6                  Detector:CDM-1      |
| Analyst    :                Column: AG4A/AS4A anion column                 |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	393	2310	2	
2	1.11	fluoride	235.543	321	1727	2	3.75
3	1.21		0.000	290	1766	2	
4	1.66	chloride	304.163	361	1909	1	0.40
5	1.98	nitrite	29076.199	21711	132619	1	-1.66
6	3.47	nitrate	1165.737	454	3499	1	4.63
7	4.93	phosphate	649.041	88	1125	1	0.00
8	6.51	sulfate	7764.371	2267	38962	1	0.00
9	8.64	oxalate	3081.295	623	11885	1	1.25
		Totals	42276.349	26508	195803		

File: 96051071.D06 Sample: S96T000563



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==============================================================================
| Sample Name: S96T000563 DUP.                Date: 05/10/1996 11:53:44      |
| Data File  : C:\DX\DATA\96051071.D07                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 7                   Detector:CDM-1     |
| Analyst    :                 Column: AG4A/AS4A anion column                |
==============================================================================
```
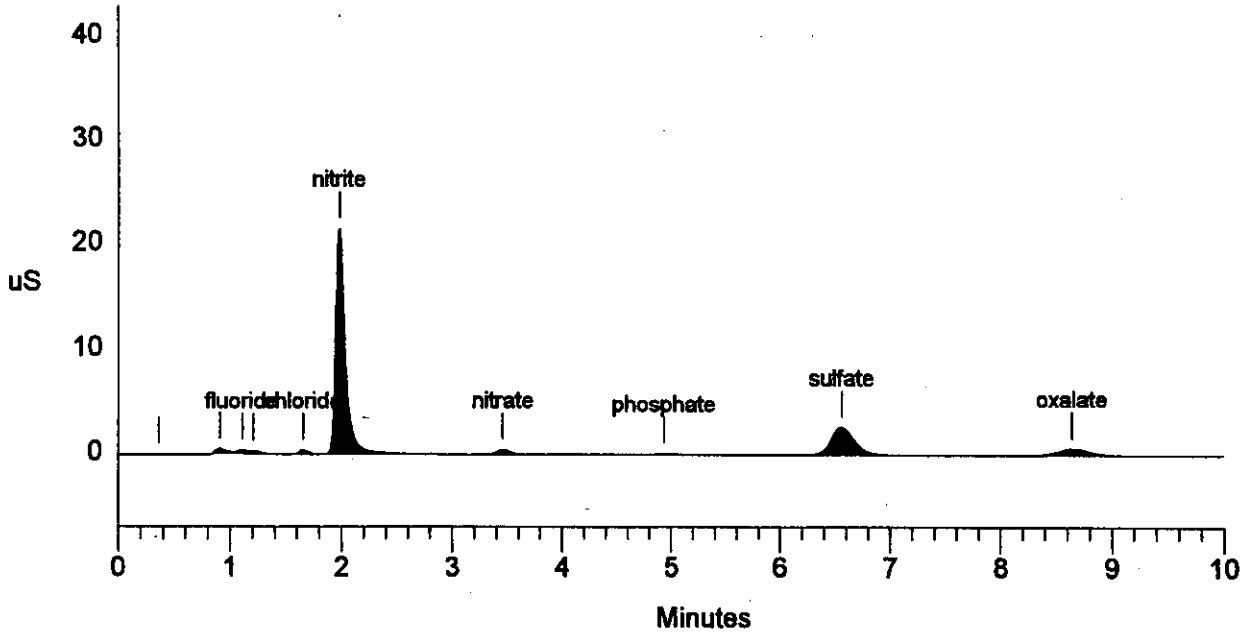

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.36		0.000	19	127	1	
2	0.91		0.000	384	2311	2	
3	1.11	fluoride	229.787	317	1677	2	3.75
4	1.21		0.000	283	1713	2	
5	1.65	chloride	325.593	391	2044	1	0.00
6	1.98	nitrite	28262.122	21489	128766	1	-1.66
7	3.46	nitrate	1139.651	443	3397	1	4.43
8	4.93	phosphate	608.765	85	1048	1	0.00
9	6.56	sulfate	7607.834	2651	38154	1	0.82
10	8.64	oxalate	3091.464	613	11926	1	1.25
		Totals	41265.215	26676	191162		

File: 96051071.D07 Sample: S96T000563 DUP.



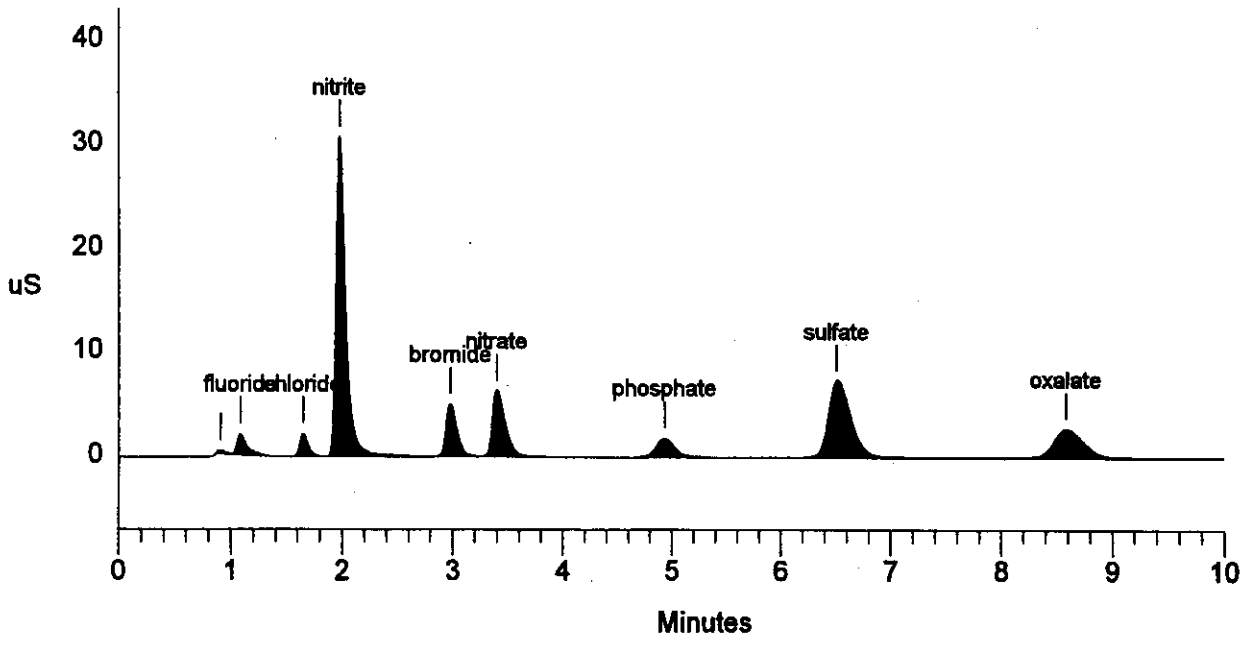
Sample Name: S96T000563 SPIKE Date: 05/10/1996 12:04:30
Data File : C:\DX\DATA\96051071.D08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : A. Hamel Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	387	2042	2	
2	1.09	fluoride	1518.197	2013	13074	2	1.88
3	1.65	chloride	1755.566	2164	11164	1	-0.40
4	1.98	nitrite	40122.960	30742	185616	1	-1.66
5	2.98	bromide	11402.991	4978	33827	1	0.68
6	3.40	nitrate	12796.998	6300	49880	1	2.62
7	4.93	phosphate	11349.826	1810	22048	1	0.00
8	6.51	sulfate	20276.306	7310	104732	1	0.00
9	8.59	oxalate	13123.499	2762	52490	1	0.63
		Totals	112346.344	58465	474874		

File: 96051071.D08 Sample: S96T000563 SPIKE



04/29/96 13:41
A-0004-1

LABCORE Data Entry Template for Worklist# 8129

96050171, D03, D04→06 96050181, D07→D09

Analyst: R. G **Instrument:** IC00 _____ **Book#** 133 N9-E

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 FOR IC RTS!

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T001546	0		@IC-01	LIQUID	96000174	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T001546	0		@IC-01	LIQUID		
5	SPK	S96T001546	0		@IC-01	LIQUID		
6	SAMPLE	S96T001544	0		@IC-01	LIQUID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S96T001544	0		@IC-01	LIQUID		

Final page for worklist # 8129

Jann Lye for Rae Ann Green
Analyst Signature **Date** 5/1/96

Analyst Signature **Date**

Exported 5/7
Inshell 5/7 JMF
Uploaded 5/7/96 Jann Lye
Validated 5/7/96 Jann Lye

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 8129

Analyst: rag **Instrument:** IC01 **Book#** 133N9E

Method: LA533105 Rev/Mod D-1

Worklist Comment: C-106 FOR IC RTS!

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	2.38e-01	0.238	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.83e+01	98.814	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.36e+01	93.165	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.76e02	5.68e+02	98.611	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	5.74e+02	99.826	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	6.12e+02	99.674	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.50e+02	100.733	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.28e+02	99.525	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.37e02	5.38e+02	100.186	% Recovery
3	SAMPLE	S96T001546		0	@IC-01	F-02	LIQUID	N/A	2.226e+02	14.440	ug/mL
3	SAMPLE	S96T001546		0	@IC-01	CL-02	LIQUID	N/A	2.966e+02	18.890	ug/mL
3	SAMPLE	S96T001546		0	@IC-01	NO2-02	LIQUID	N/A	3.015e+04	118.900	ug/mL
3	SAMPLE	S96T001546		0	@IC-01	NO3-02	LIQUID	N/A	1.005e+03	155.500	ug/mL
3	SAMPLE	S96T001546		0	@IC-01	PO4-02	LIQUID	N/A	5.133e+02	132.100	ug/mL
3	SAMPLE	S96T001546		0	@IC-01	SO4-02	LIQUID	N/A	7.879e+03	151.000	ug/mL
3	SAMPLE	S96T001546		0	@IC-01	OXALATE2	LIQUID	N/A	3.532e+03	116.700	ug/mL
4	DUP	S96T001546		0	@IC-01	F-02	LIQUID	2.23e+02	2.12e+02	5.057	RPD
4	DUP	S96T001546		0	@IC-01	CL-02	LIQUID	2.97e+02	2.95e+02	0.676	RPD
4	DUP	S96T001546		0	@IC-01	NO2-02	LIQUID	3.02e+04	3.04e+04	0.660	RPD
4	DUP	S96T001546		0	@IC-01	NO3-02	LIQUID	1.00e+03	1.09e+03	8.612	RPD
4	DUP	S96T001546		0	@IC-01	PO4-02	LIQUID	5.13e+02	5.30e+02	3.260	RPD
4	DUP	S96T001546		0	@IC-01	SO4-02	LIQUID	7.88e+03	7.90e+03	0.253	RPD
4	DUP	S96T001546		0	@IC-01	OXALATE2	LIQUID	3.53e+03	3.50e+03	0.853	RPD
5	SPK	S96T001546		0	@IC-01	F-02	LIQUID	5.90e01	7.41e+01	125.593	% Recovery
5	SPK	S96T001546		0	@IC-01	CL-02	LIQUID	7.90e01	7.88e+01	99.747	% Recovery
5	SPK	S96T001546		0	@IC-01	NO2-02	LIQUID	5.76e02	5.58e+02	96.875	% Recovery
5	SPK	S96T001546		0	@IC-01	NO3-02	LIQUID	6.14e02	5.95e+02	96.906	% Recovery
5	SPK	S96T001546		0	@IC-01	PO4-02	LIQUID	5.46e02	5.54e+02	101.465	% Recovery
5	SPK	S96T001546		0	@IC-01	SO4-02	LIQUID	6.31e02	6.55e+02	103.803	% Recovery
5	SPK	S96T001546		0	@IC-01	OXALATE2	LIQUID	5.37e02	5.43e+02	101.117	% Recovery
6	SAMPLE	S96T001544		0	@IC-01	F-02	LIQUID	N/A	1.973e+02	14.440	ug/mL
6	SAMPLE	S96T001544		0	@IC-01	CL-02	LIQUID	N/A	5.842e+02	18.890	ug/mL
6	SAMPLE	S96T001544		0	@IC-01	NO2-02	LIQUID	N/A	2.586e+04	118.900	ug/mL
6	SAMPLE	S96T001544		0	@IC-01	NO3-02	LIQUID	N/A	9.430e+02	155.500	ug/mL

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8129

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
6	SAMPLE	S96T001544		0	@IC-01	PO4-02	LIQUID	N/A	5.847e+02	132.100	ug/mL
6	SAMPLE	S96T001544		0	@IC-01	SO4-02	LIQUID	N/A	6.832e+03	151.000	ug/mL
6	SAMPLE	S96T001544		0	@IC-01	OXALATE2	LIQUID	N/A	2.189e+03	116.700	ug/mL
7	DUP	S96T001544		0	@IC-01	F-02	LIQUID	1.97e+02	1.99e+02	1.010	RPD
7	DUP	S96T001544		0	@IC-01	CL-02	LIQUID	5.84e+02	5.88e+02	0.683	RPD
7	DUP	S96T001544		0	@IC-01	NO2-02	LIQUID	2.59e+04	2.62e+04	1.152	RPD
7	DUP	S96T001544		0	@IC-01	NO3-02	LIQUID	9.43e+02	9.54e+02	1.160	RPD
7	DUP	S96T001544		0	@IC-01	PO4-02	LIQUID	5.85e+02	5.47e+02	6.714	RPD
7	DUP	S96T001544		0	@IC-01	SO4-02	LIQUID	6.83e+03	6.86e+03	0.438	RPD
7	DUP	S96T001544		0	@IC-01	OXALATE2	LIQUID	2.19e+03	2.23e+03	1.810	RPD

Final page for worklist# 8129

Analyst Signature **Date** **Analyst Signature** **Date**

H Anastor 5-21-96
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Reprocessed On 05/07/1996 09:39:45

Sample Name: BLANK	Date: 05/01/1996 16:30:37
Data File : C:\DX\DATA\96050171.d04	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 4	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

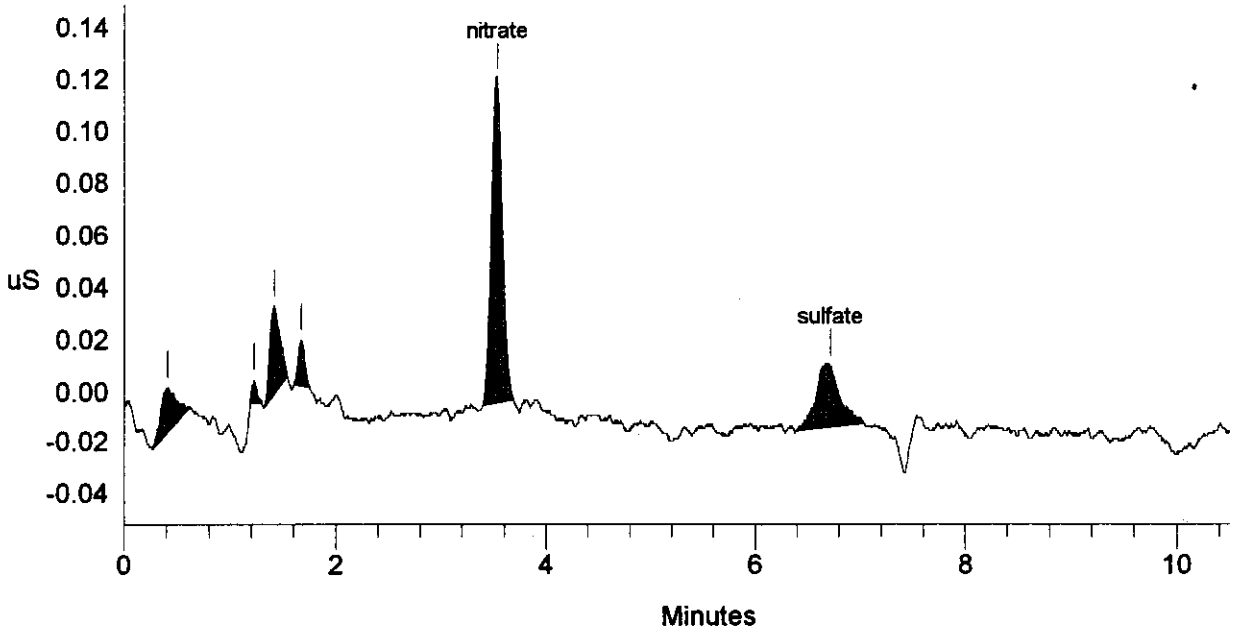
H Anastos for RA Green 5.21.96

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.41		0.000	18	178	1	
3	1.42		0.000	34	227	1	
5	3.53	nitrate	0.238	124	901	1	6.64
6	6.72	sulfate	0.098	24	391	1	3.28
		Totals	0.336	199	1697		

File: 96050171.d04 Sample: BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 614 TO 620.

Data Reprocessed On 05/07/1996 09:39:42

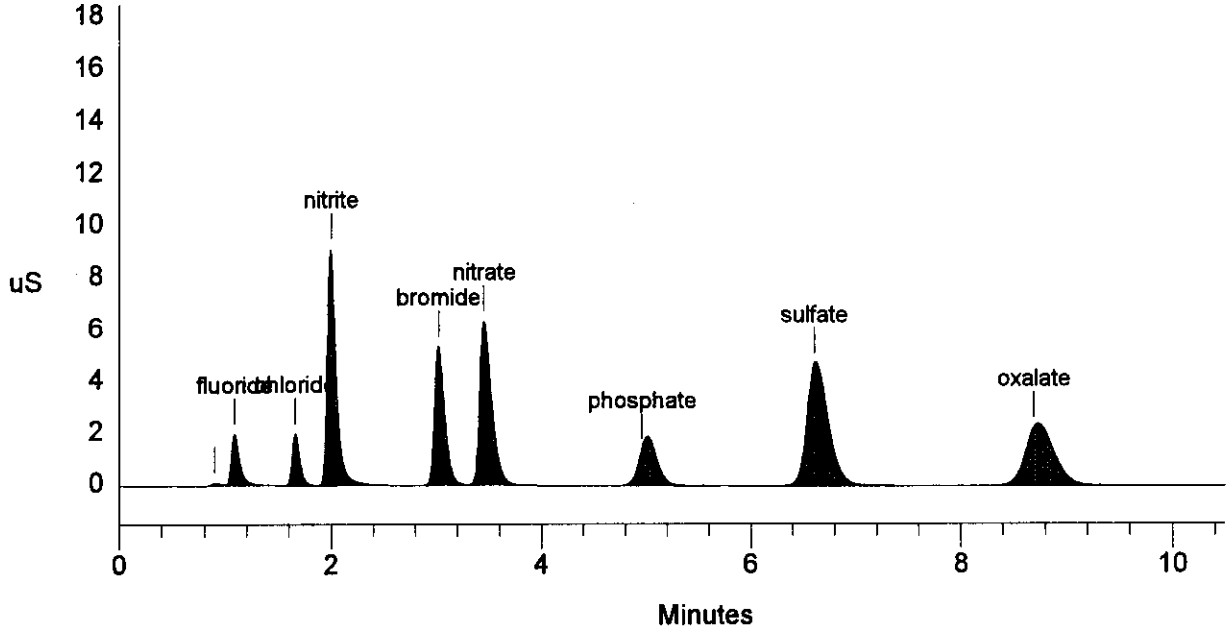
Sample Name: STANDARD 133N9-E	Date: 05/01/1996 16:12:43
Data File : C:\DX\DATA\96050171.d03	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 3	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	77	374	2	
2	1.09	fluoride	58.335	1929	10439	2	1.88
3	1.66	chloride	73.587	1970	9809	1	0.40
4	2.00	nitrite	568.156	9091	52900	1	-0.66
5	3.02	bromide	573.707	5368	35811	1	2.03
6	3.45	nitrate	612.159	6318	50116	1	4.23
7	4.96	phosphate	550.310	1389	22459	1	0.54
8	6.61	sulfate	627.616	4725	67127	1	1.64
9	8.69	oxalate	537.633	2247	45030	1	1.88
		Totals	3601.502	33114	294066		

File: 96050171.d03 Sample: STANDARD 133N9-E



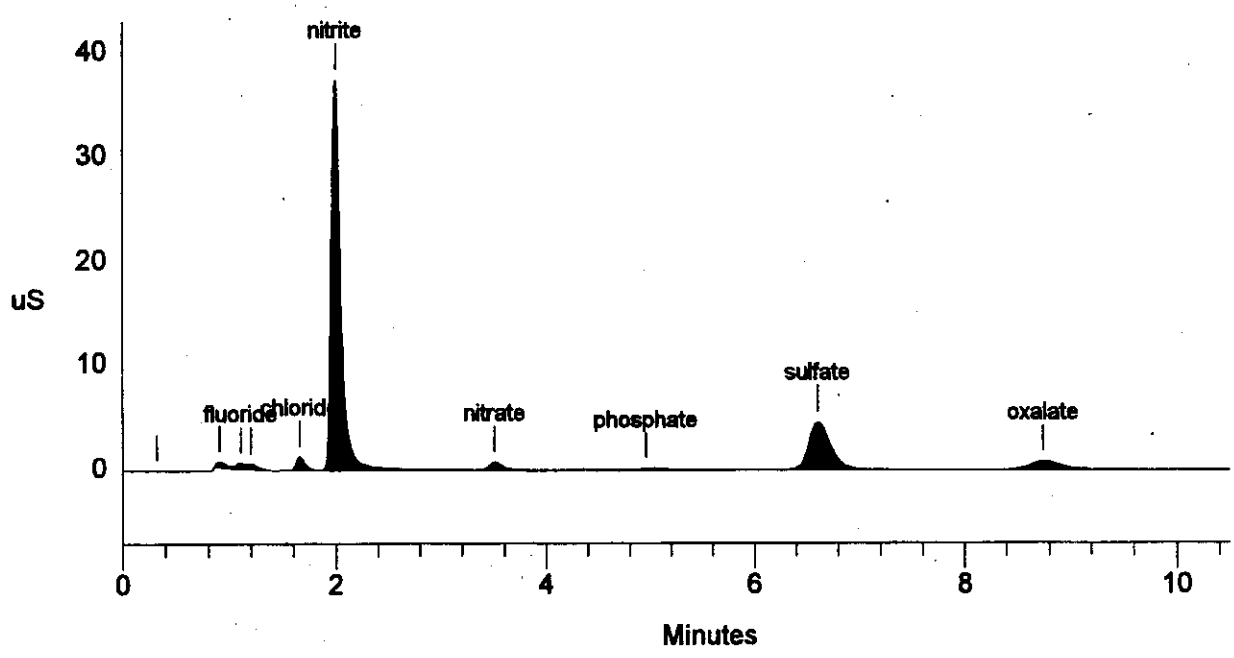
Sample Name: ~~S96T1546~~ RJS S96T1544 5-1-96 Date: 05/01/1996 16:42:13
Data File : C:\DX\DATA\96050171.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Rae Ann Green Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.32		0.000	17	169	1	
2	0.91		0.000	581	3365	2	
3	1.11	fluoride	197.304	554	2953	2	3.75
4	1.20		0.000	513	3078	2	
5	1.66	chloride	584.168	1324	7053	1	0.40
6	2.00	nitrite	25856.600	37371	231014	1	-0.66
7	3.51	nitrate	942.975	770	5997	1	5.84
8	4.96	phosphate	584.683	120	2024	1	0.54
9	6.61	sulfate	6831.530	4623	66404	1	1.64
10	8.75	oxalate	2189.483	839	16297	1	2.50
		Totals	37186.743	46711	338352		

File: 96050171.D05 Sample: ~~S96T1546~~ RJS 5-1-96 S96T1544



Data Reprocessed On 05/07/1996 09:39:50

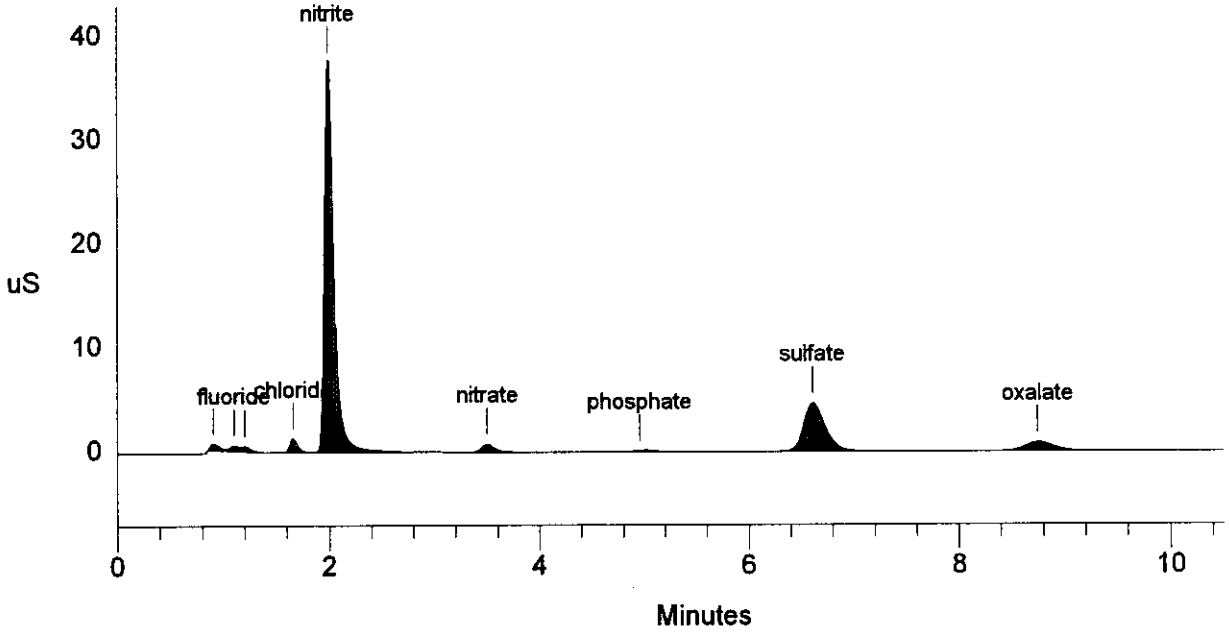
Sample Name: S96T1544 DUP Date: 05/01/1996 16:56:47
Data File : C:\DX\DATA\96050171.d06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1111	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	612	3637	2	
2	1.10	fluoride	199.318	554	2986	2	3.13
3	1.20		0.000	517	3199	2	
4	1.66	chloride	588.385	1353	7104	1	0.40
5	1.99	nitrite	26231.975	37496	234577	1	-0.99
6	3.50	nitrate	953.507	776	6076	1	5.63
7	4.96	phosphate	546.578	115	1884	1	0.54
8	6.61	sulfate	6857.317	4667	66662	1	1.64
9	8.75	oxalate	2228.386	855	16595	1	2.50
		Totals	37605.466	46946	342720		

File: 96050171.d06 Sample: S96T1544 DUP



Data Reprocessed On 05/07/1996 09:39:52

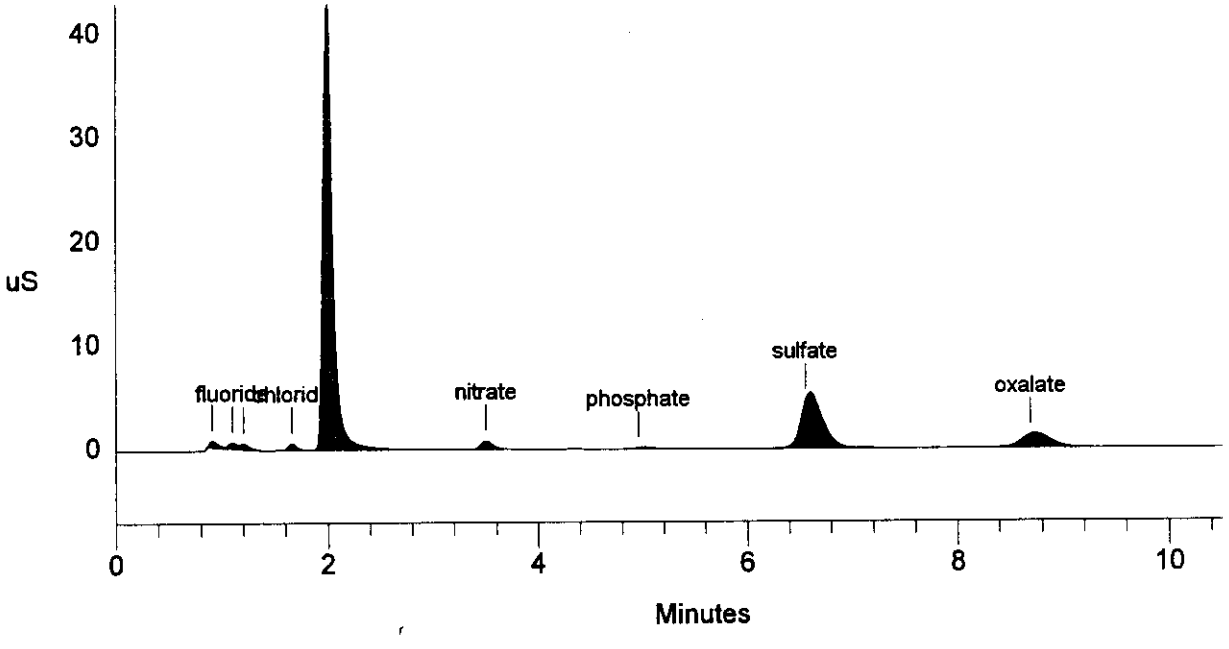
Sample Name: S96T1546 Date: 05/01/1996 17:11:57
Data File : C:\DX\DATA\96050181.d07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1111	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	651	3792	2	
2	1.10	fluoride	222.609	597	3374	2	3.13
3	1.20		0.000	553	3343	2	
4	1.66	chloride	296.643	651	3564	1	0.40
5	2.00	nitrite	30150.555	42937	272164	1	-0.66
6	3.50	nitrate	1005.068	828	6464	1	5.63
7	4.96	phosphate	513.310	112	1762	1	0.54
8	6.56	sulfate	7879.015	4703	76915	1	0.82
9	8.69	oxalate	3532.398	1289	26621	1	1.88
		Totals	43599.598	52322	397998		

File: 96050181.d07 Sample: S96T1546



Data Reprocessed On 05/07/1996 09:39:54

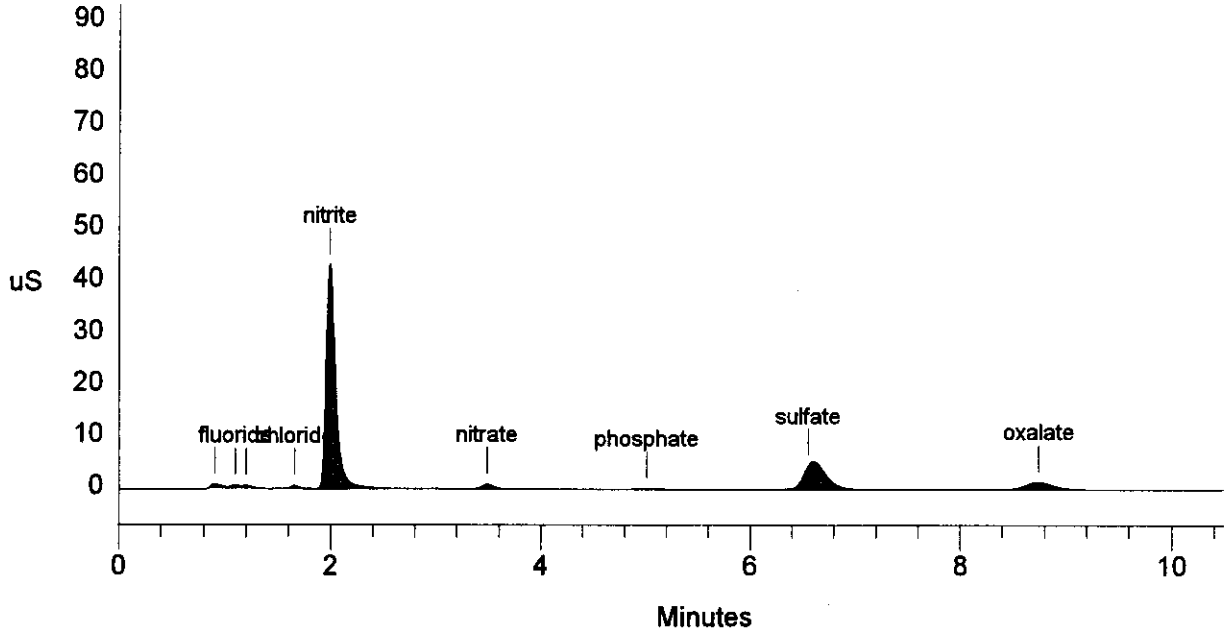
Sample Name: S96T1546 DUP Date: 05/01/1996 17:24:23
Data File : C:\DX\DATA\96050181.d08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	668	4059	2	
2	1.10	fluoride	212.404	596	3204	2	3.13
3	1.20		0.000	548	3442	2	
4	1.66	chloride	294.829	663	3542	1	0.40
5	1.99	nitrite	30362.337	43124	274216	1	-0.99
6	3.49	nitrate	1088.356	905	7090	1	5.23
7	5.01	phosphate	529.590	151	1821	1	1.62
8	6.56	sulfate	7902.959	4509	77156	1	0.82
9	8.75	oxalate	3499.590	1396	26368	1	2.50
		Totals	43890.066	52560	400898		

File: 96050181.d08 Sample: S96T1546 DUP



Data Reprocessed On 05/07/1996 09:39:56

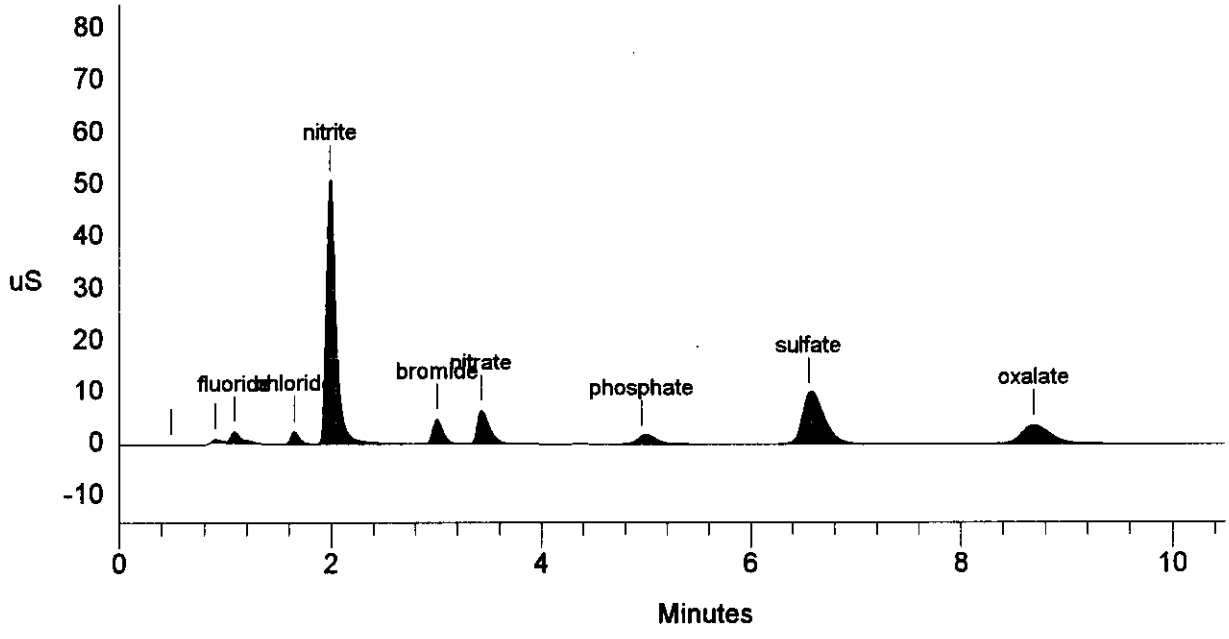
Sample Name: S96T1546 SPIKE Date: 05/01/1996 17:37:30
Data File : C:\DX\DATA\96050181.d09
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 9 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.49		0.000	13	212	1	
2	0.91		0.000	631	3342	2	
3	1.09	fluoride	971.125	2174	16125	2	1.88
4	1.65	chloride	1092.305	2446	13299	1	0.00
5	1.99	nitrite	35787.612	50808	327525	1	-0.99
6	3.01	bromide	5712.605	4767	32301	1	1.58
7	3.43	nitrate	7012.180	6455	52267	1	3.42
8	4.96	phosphate	6105.407	1534	22657	1	0.54
9	6.56	sulfate	14490.780	9879	144779	1	0.82
10	8.69	oxalate	9019.570	3628	69235	1	1.88
		Totals	80191.584	82335	681743		

File: 96050181.d09 Sample: S96T1546 SPIKE



04/29/96 13:51
A-0004-1

Wrong Instrument Tray

LABCORE Data Entry Template for Worklist# 8132

96042941, D12 → D26

Analyst: DPB **Instrument:** BA001 **Book#** 133N9-E

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 FOR IC RTS!

QC missing

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK-PREP				@IC-01	SOLID		
2	SAMPLE	S96T000557	0	W	@IC-01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
3	DUP	S96T000557	0	W	@IC-01	SOLID		
4	SPK	S96T000557	0	W	@IC-01	SOLID		
5	SAMPLE	S96T000574	0	W	@IC-01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
6	DUP	S96T000574	0	W	@IC-01	SOLID		
7	SPK	S96T000574	0	W	@IC-01	SOLID		

Final page for worklist # 8132

Daniel R. Bromley 4/30/96 0530
Analyst Signature **Date**

Analyst Signature **Date**

Exported 5/7
Inshell 5/7 9MF

WKL 8132 had to be deleted because it was made on the wrong instrument tray the sample batch was put on WKL 8454.

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Data Reprocessed On 05/07/1996 09:49:43

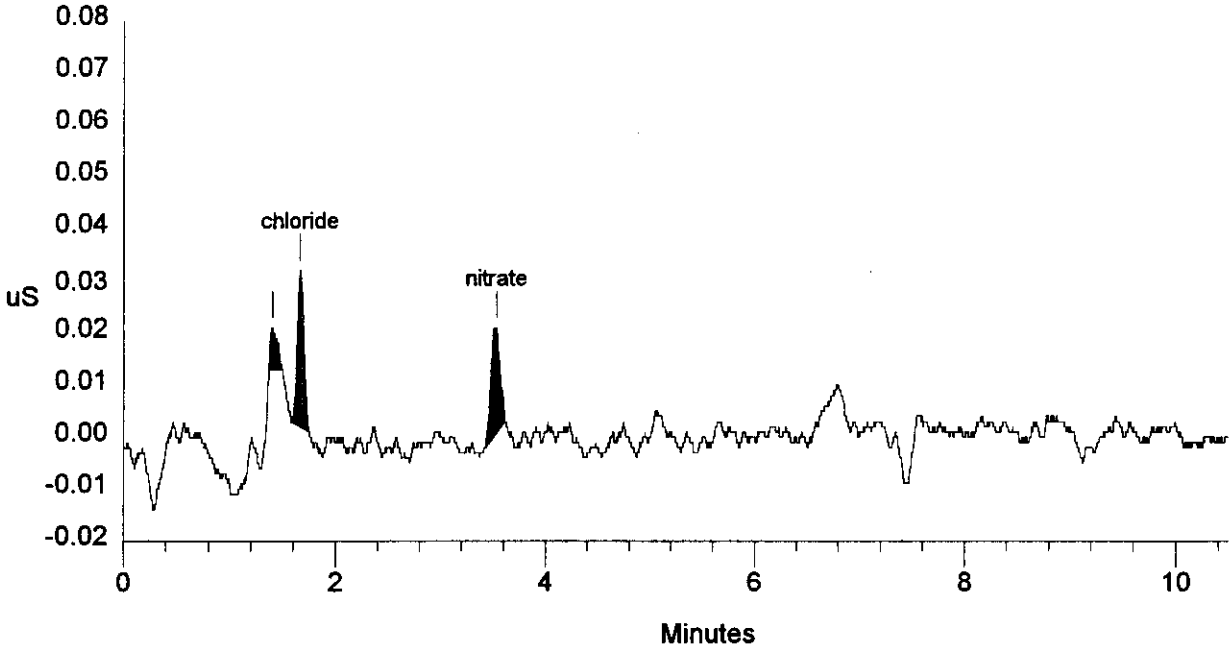
Sample Name: ELUENT BLANK Date: 04/29/1996 23:35:37
Data File : C:\DX\DATA\96042941.d12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : [signature] for DPB Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.67	chloride	0.010	30	127	1	0.81
3	3.53	nitrate	0.144	20	123	1	6.64
		Totals	0.154	50	250		

File: 96042941.d12 Sample: ELUENT BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 622 TO 638.

LABCORE Data Entry Template for Worklist# 8454

Analyst: DPB **Instrument:** IC00 IC01 **Book#** 133WAE

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 IC, was originally WKL 8132 .

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S96T000557	0	W	@IC-01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
5	DUP	S96T000557	0	W	@IC-01	SOLID		
6	SPK	S96T000557	0	W	@IC-01	SOLID		
7	SAMPLE	S96T000574	0	W	@IC-01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
8	DUP	S96T000574	0	W	@IC-01	SOLID		
9	SPK	S96T000574	0	W	@IC-01	SOLID		

Final page for worklist # 8454

Anne Fuge for Daniel Bromley 5/7/96
Analyst Signature **Date**
Run on 4/30/96

Analyst Signature **Date**

Uploaded 5/7/96 AM Fuge
Validated 5/7/96 AM Fuge

Data Entry Comments: This worklist was originally called WKL 8132

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 8454

Analyst: **Instrument:** IC01 **Book#** 133N9E

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 IC, was originally WKL 8132 .

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	1.44e-01	0.144	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.67e+01	96.102	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.83e+01	99.114	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.76e02	5.63e+02	97.743	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	5.66e+02	98.435	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	6.00e+02	97.720	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.47e+02	100.183	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.18e+02	97.940	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.37e02	5.32e+02	99.069	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	3.30e-02	0.033	ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	<1.40e-1		ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	F-02	SOLID	N/A	2.091e+02	50.690	ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	CL-02	SOLID	N/A	1.719e+02	66.280	ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	NO2-02	SOLID	N/A	1.352e+04	417.300	ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	NO3-02	SOLID	N/A	1.267e+03	545.400	ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	PO4-02	SOLID	N/A	9.291e+02	463.700	ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	SO4-02	SOLID	N/A	4.115e+03	529.800	ug/g
4	SAMPLE	S96T000557	W	0	@IC-01	OXALATE2	SOLID	N/A	7.796e+04	409.300	ug/g
5	DUP	S96T000557	W	0	@IC-01	F-02	SOLID	2.09e+02	1.98e+02	5.405	RPD
5	DUP	S96T000557	W	0	@IC-01	CL-02	SOLID	1.72e+02	1.69e+02	1.760	RPD
5	DUP	S96T000557	W	0	@IC-01	NO2-02	SOLID	1.35e+04	1.34e+04	0.743	RPD
5	DUP	S96T000557	W	0	@IC-01	NO3-02	SOLID	1.27e+03	1.25e+03	1.587	RPD
5	DUP	S96T000557	W	0	@IC-01	PO4-02	SOLID	9.29e+02	9.85e+02	5.852	RPD
5	DUP	S96T000557	W	0	@IC-01	SO4-02	SOLID	4.12e+03	4.11e+03	0.243	RPD
5	DUP	S96T000557	W	0	@IC-01	OXALATE2	SOLID	7.80e+04	7.70e+04	1.290	RPD
6	SPK	S96T000557	W	0	@IC-01	F-02	SOLID	5.90e01	6.43e+01	108.983	% Recovery
6	SPK	S96T000557	W	0	@IC-01	CL-02	SOLID	7.90e01	7.85e+01	99.367	% Recovery
6	SPK	S96T000557	W	0	@IC-01	NO2-02	SOLID	5.76e02	6.60e+02	114.583	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8454

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S96T000557	0	W	@IC-01	NO3-02	SOLID	6.14e02	6.34e+02	103.257	% Recovery
6	SPK	S96T000557	0	W	@IC-01	PO4-02	SOLID	5.46e02	5.99e+02	109.707	% Recovery
6	SPK	S96T000557	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.63e+02	105.071	% Recovery
6	SPK	S96T000557	0	W	@IC-01	OXALATE2	SOLID	5.37e02	5.93e+02	110.428	% Recovery
7	SAMPLE	S96T000574	0	W	@IC-01	F-02	SOLID	N/A	1.944e+02	55.120	ug/g
7	SAMPLE	S96T000574	0	W	@IC-01	CL-02	SOLID	N/A	1.470e+02	72.070	ug/g
7	SAMPLE	S96T000574	0	W	@IC-01	NO2-02	SOLID	N/A	1.036e+04	453.600	ug/g
7	SAMPLE	S96T000574	0	W	@IC-01	NO3-02	SOLID	N/A	1.834e+03	593.200	ug/g
7	SAMPLE	S96T000574	0	W	@IC-01	PO4-02	SOLID	N/A	3.525e+03	504.200	ug/g
7	SAMPLE	S96T000574	0	W	@IC-01	SO4-02	SOLID	N/A	3.322e+03	576.200	ug/g
7	SAMPLE	S96T000574	0	W	@IC-01	OXALATE2	SOLID	N/A	6.895e+04	445.200	ug/g
8	DUP	S96T000574	0	W	@IC-01	F-02	SOLID	1.94e+02	1.95e+02	0.514	RPD
8	DUP	S96T000574	0	W	@IC-01	CL-02	SOLID	1.47e+02	1.33e+02	10.000	RPD
8	DUP	S96T000574	0	W	@IC-01	NO2-02	SOLID	1.04e+04	1.03e+04	0.966	RPD
8	DUP	S96T000574	0	W	@IC-01	NO3-02	SOLID	1.83e+03	9.78e+02	60.684	RPD
8	DUP	S96T000574	0	W	@IC-01	PO4-02	SOLID	3.52e+03	1.01e+03	110.817	RPD
8	DUP	S96T000574	0	W	@IC-01	SO4-02	SOLID	3.32e+03	3.31e+03	0.302	RPD
8	DUP	S96T000574	0	W	@IC-01	OXALATE2	SOLID	6.90e+04	6.83e+04	1.020	RPD
9	SPK	S96T000574	0	W	@IC-01	F-02	SOLID	5.90e01	5.95e+01	100.847	% Recovery
9	SPK	S96T000574	0	W	@IC-01	CL-02	SOLID	7.90e01	7.51e+01	95.063	% Recovery
9	SPK	S96T000574	0	W	@IC-01	NO2-02	SOLID	5.76e02	6.19e+02	107.465	% Recovery
9	SPK	S96T000574	0	W	@IC-01	NO3-02	SOLID	6.14e02	5.76e+02	93.811	% Recovery
9	SPK	S96T000574	0	W	@IC-01	PO4-02	SOLID	5.46e02	4.87e+02	89.194	% Recovery
9	SPK	S96T000574	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.20e+02	98.257	% Recovery
9	SPK	S96T000574	0	W	@IC-01	OXALATE2	SOLID	5.37e02	6.23e+02	116.015	% Recovery

Final page for worklist# 8454

Analyst Signature Date

Analyst Signature Date

Joel Smith 5/21/96
Reviewer Signature Date

Validated JMF

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Reprocessed On 05/07/1996 09:49:45

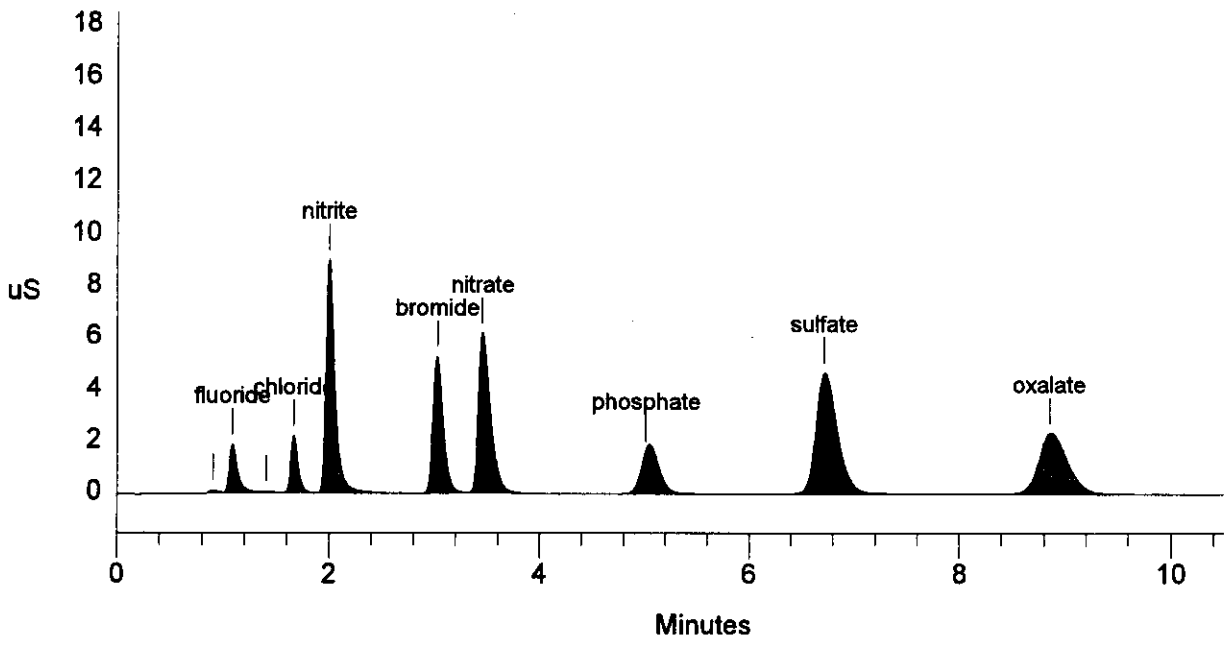
Sample Name: STD 133N9-E	Date: 04/29/1996 23:46:58
Data File : C:\DX\DATA\96042941.d13	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 13	Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	87	456	2	
2	1.09	fluoride	56.672	1845	10127	3	1.88
3	1.41		0.000	49	344	4	
4	1.67	chloride	78.312	2188	10448	1	0.81
5	2.00	nitrite	563.054	8970	52411	1	-0.66
6	3.03	bromide	566.070	5275	35317	1	2.25
7	3.45	nitrate	600.053	6150	49088	1	4.23
8	5.01	phosphate	547.220	1632	22330	1	1.62
9	6.72	sulfate	617.769	4656	66043	1	3.28
10	8.85	oxalate	532.492	2326	44592	1	3.75
		Totals	3561.643	33177	291155		

File: 96042941.d13 Sample: STD 133N9-E



Data Reprocessed On 05/07/1996 09:49:47

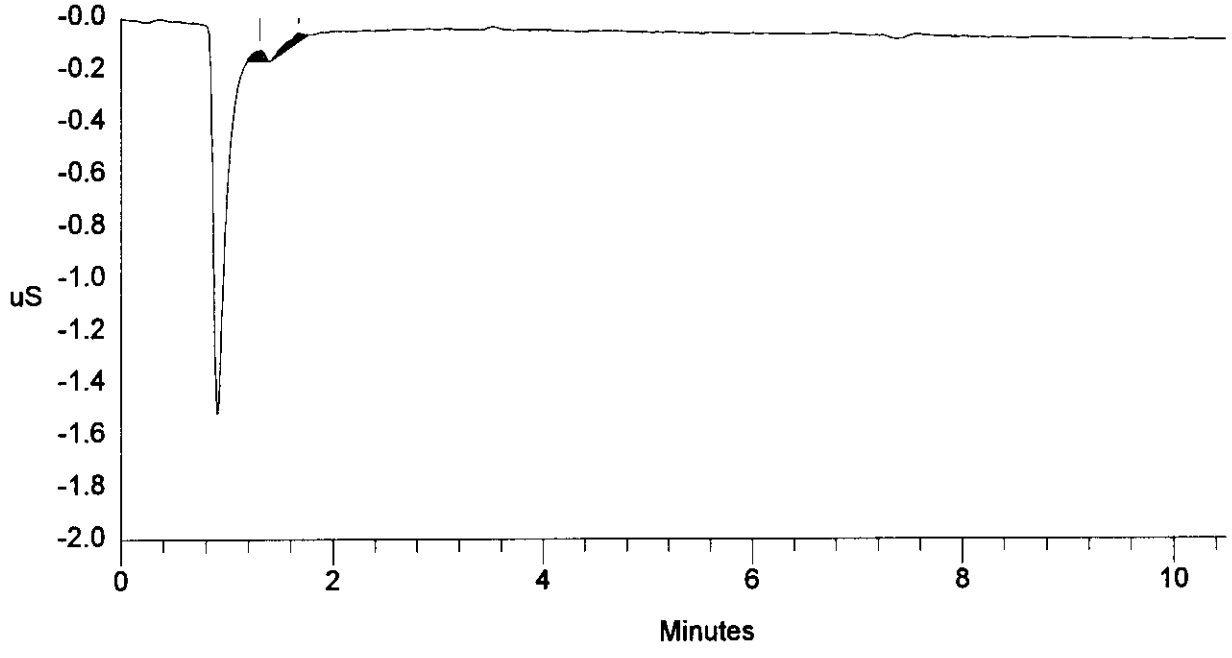
Sample Name: BLANK PREP	Date: 04/30/1996 01:32:40
Data File : C:\DX\DATA\96042941.d15	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 15	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.31		0.000	41	334	1	
2	1.68	chloride	0.033	32	442	1	1.61
		Totals	0.033	73	776		

File: 96042941.d15 Sample: BLANK PREP



Data Reprocessed On 05/07/1996 09:49:49

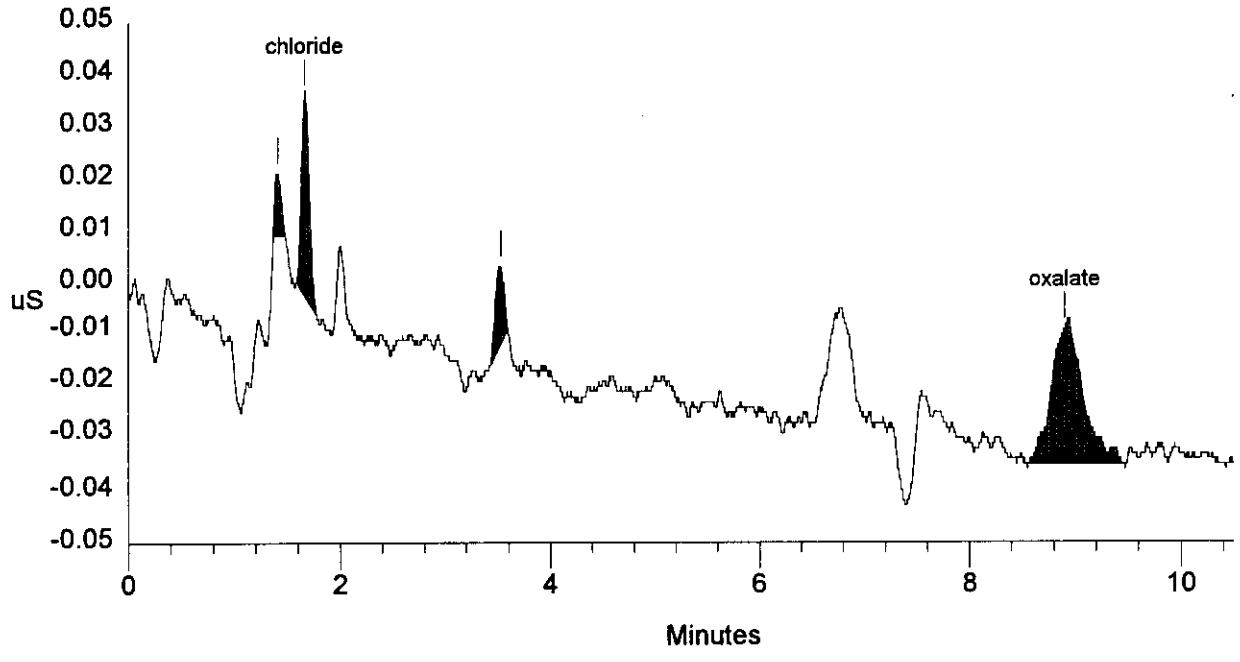
Sample Name: S96T000557 SAM	Date: 04/30/1996 01:44:26
Data File : C:\DX\DATA\96042941.d16	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 16	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	5151	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.67	chloride	76.696	38	196	1	0.81
4	8.91	oxalate	615.224	26	564	1	4.37
		Totals	691.920	64	760		

File: 96042941.d16 Sample: S96T000557 SAM



Data Reprocessed On 05/07/1996 09:49:51

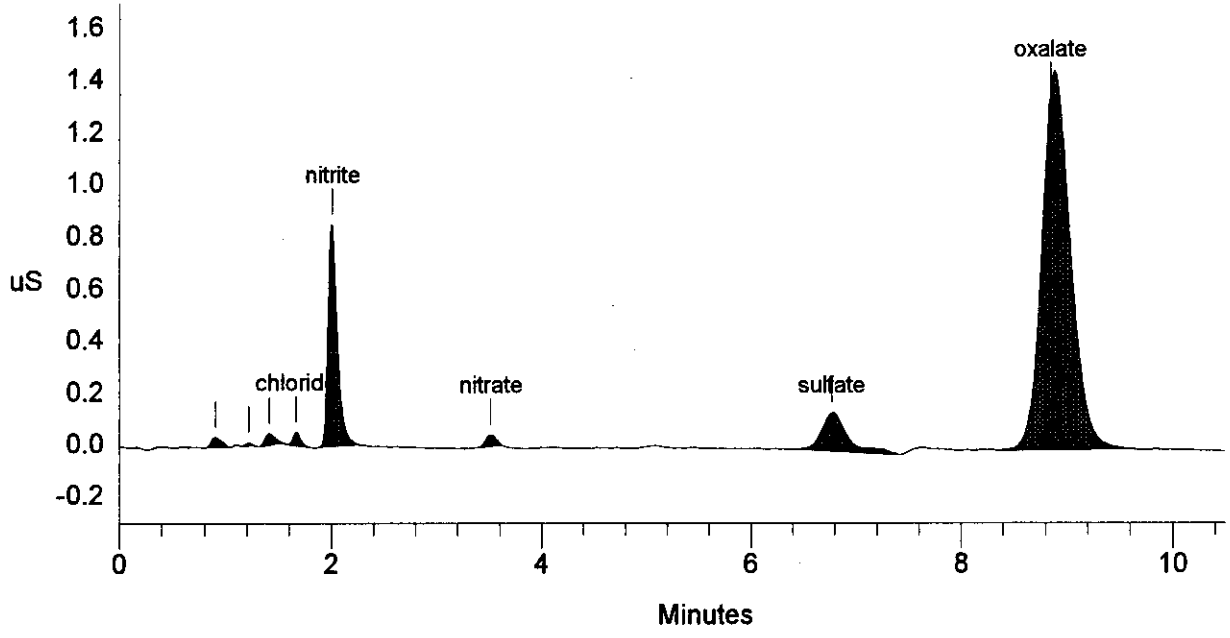
Sample Name: S96T000557 SAM Date: 04/30/1996 01:55:39
Data File : C:\DX\DATA\96042941.d17
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 17 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	36	228	1	
3	1.41		0.000	44	283	1	
4	1.67	chloride	1.855	50	242	1	0.81
5	2.01	nitrite	64.954	851	5176	1	-0.33
6	3.51	nitrate	16.701	44	297	1	6.04
7	6.77	sulfate	30.154	147	2539	1	4.10
8	8.85	oxalate	330.397	1347	27406	1	3.75
		Totals	444.061	2518	36172		

File: 96042941.d17 Sample: S96T000557 SAM



Data Reprocessed On 05/07/1996 09:49:53

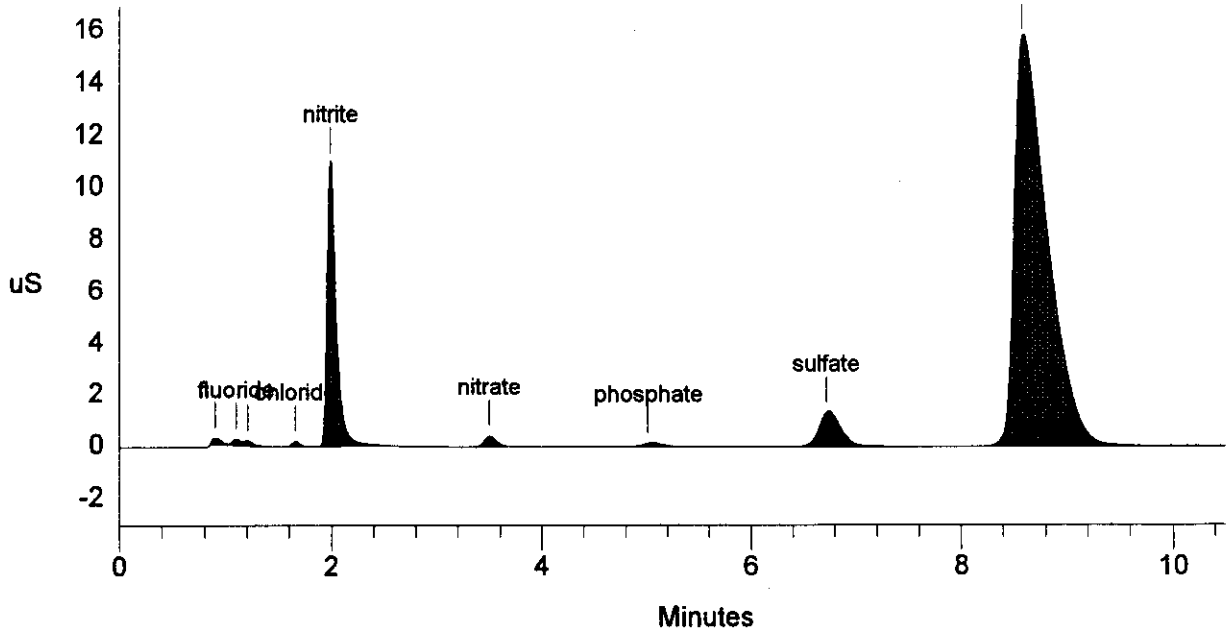
Sample Name: S96T000557 SAM Date: 04/30/1996 02:12:45
Data File : C:\DX\DATA\96042941.d18
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 18 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	253	1511	2	
2	1.10	fluoride	0.979	244	1321	2	3.13
3	1.21		0.000	206	1223	2	
4	1.66	chloride	0.886	213	1070	1	0.40
5	1.99	nitrite	76.197	10914	65540	1	-0.99
6	3.50	nitrate	5.505	406	3089	1	5.63
7	5.01	phosphate	5.206	123	1808	1	1.62
8	6.72	sulfate	20.967	1333	19862	1	3.28
9	8.59	oxalate	415.656	15696	341849	1	0.63
		Totals	525.395	29387	437273		

File: 96042941.d18 Sample: S96T000557 SAM



Data Reprocessed On 05/07/1996 09:49:55

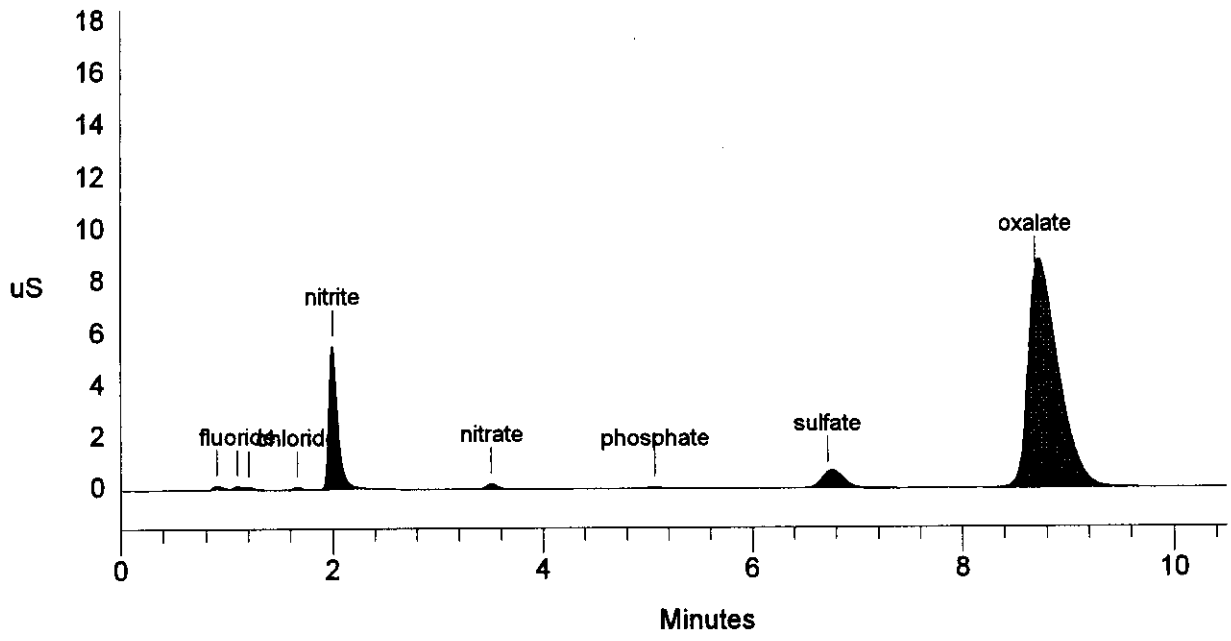
Sample Name: S96T000557 SAM Date: 04/30/1996 02:30:10
Data File : C:\DX\DATA\96042941.d19
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 19 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	139	845	2	
2	1.10	fluoride	1.126	126	673	2	3.13
3	1.21		0.000	107	593	2	
4	1.67	chloride	0.926	119	584	1	0.81
5	2.00	nitrite	72.813	5543	32102	1	-0.66
6	3.51	nitrate	6.822	222	1625	1	5.84
7	5.07	phosphate	5.004	74	849	1	2.70
8	6.72	sulfate	22.164	640	10675	1	3.28
9	8.69	oxalate	419.900	8289	174735	1	1.88
		Totals	528.755	15260	222682		

File: 96042941.d19 Sample: S96T000557 SAM



Data Reprocessed On 05/07/1996 09:49:57

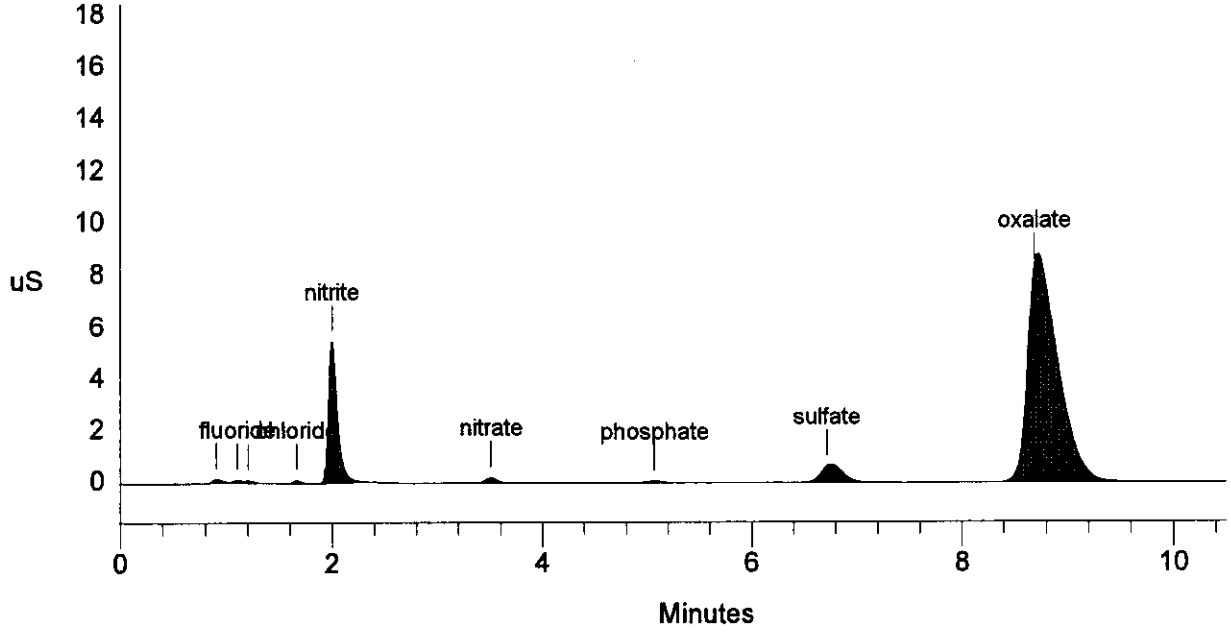
Sample Name: S96T000557 DUP Date: 04/30/1996 02:43:38
Data File : C:\DX\DATA\96042941.d20
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 20 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	136	789	2	
2	1.11	fluoride	1.074	117	628	2	3.75
3	1.21		0.000	99	512	2	
4	1.67	chloride	0.915	120	578	1	0.81
5	2.00	nitrite	72.896	5488	32140	1	-0.66
6	3.51	nitrate	6.782	217	1609	1	5.84
7	5.07	phosphate	5.349	77	916	1	2.70
8	6.72	sulfate	22.333	652	10761	1	3.28
9	8.69	oxalate	417.839	8214	173845	1	1.88
		Totals	527.188	15121	221779		

File: 96042941.d20 Sample: S96T000557 DUP



Data Reprocessed On 05/07/1996 09:49:59

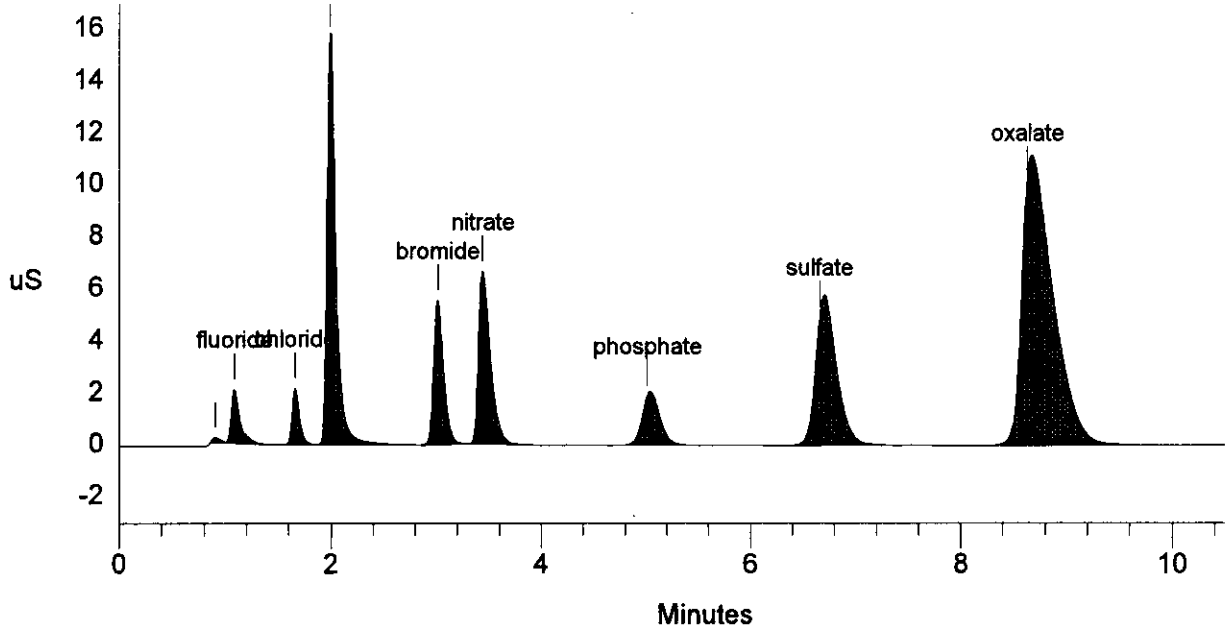
Sample Name: S96T000557 SPK	Date: 04/30/1996 02:54:54
Data File : C:\DX\DATA\96042941.d21	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 21	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	198	1073	2	
2	1.09	fluoride	13.977	2084	12114	2	1.88
3	1.66	chloride	16.629	2179	10673	1	0.40
4	1.99	nitrite	204.724	15705	93197	1	-0.99
5	3.01	bromide	122.267	5537	36739	1	1.80
6	3.44	nitrate	133.628	6633	52711	1	3.82
7	5.01	phosphate	124.749	1911	24540	1	1.62
8	6.67	sulfate	154.673	4925	79976	1	2.46
9	8.64	oxalate	538.415	10089	226487	1	1.25
		Totals	1309.061	49262	537510		

File: 96042941.d21 Sample: S96T000557 SPK



Data Reprocessed On 05/07/1996 09:50:01

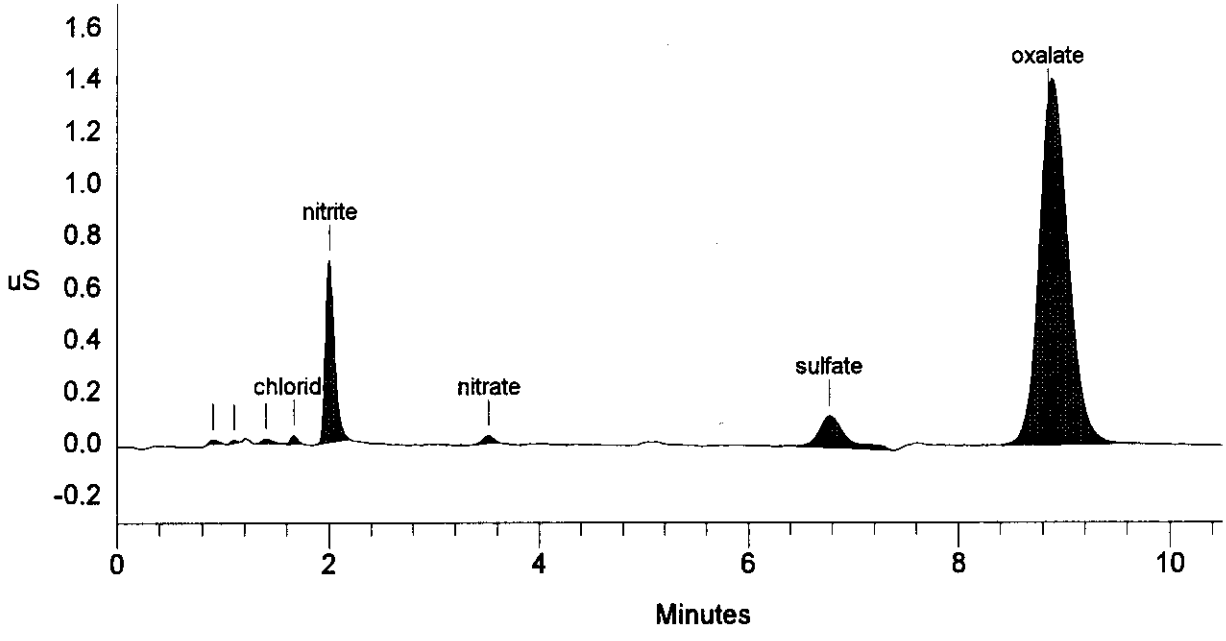
Sample Name: S96T000574 SAM Date: 04/30/1996 03:06:20
Data File : C:\DX\DATA\96042941.d22
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 22 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
3	1.41		0.000	18	117	1	
4	1.67	chloride	1.106	34	144	1	1.21
5	2.01	nitrite	53.632	700	4114	1	-0.33
6	3.52	nitrate	15.399	30	189	1	6.24
7	6.77	sulfate	26.049	123	2104	1	4.10
8	8.85	oxalate	319.351	1306	26470	1	3.75
		Totals	415.537	2211	33138		

File: 96042941.d22 Sample: S96T000574 SAM



Data Reprocessed On 05/07/1996 09:50:03

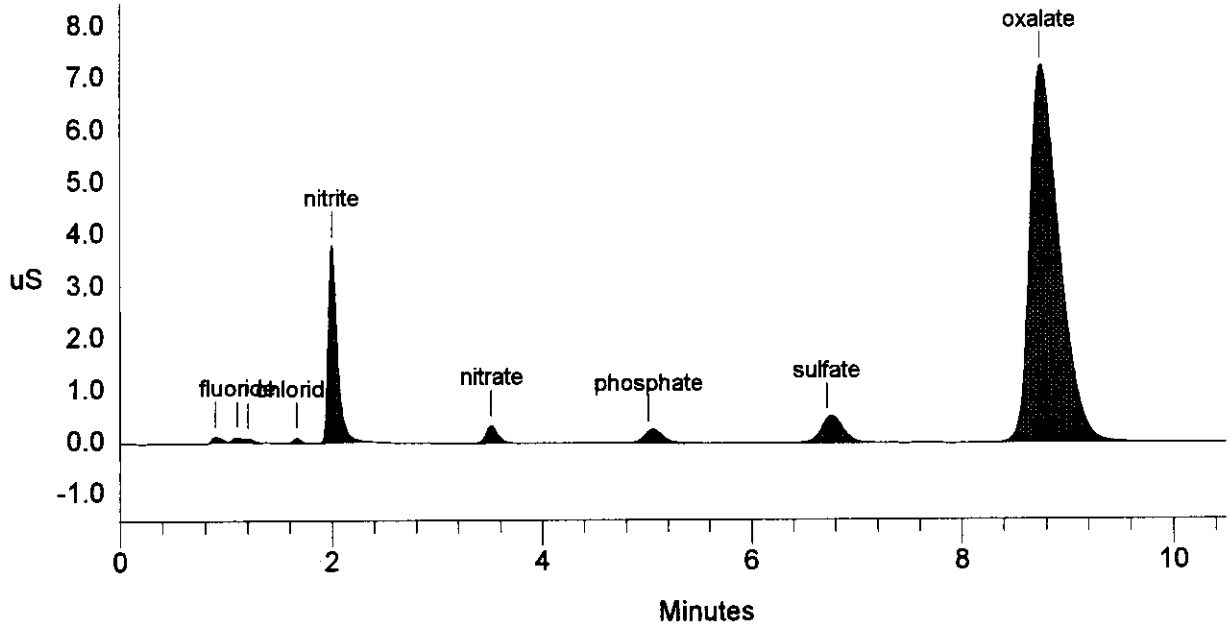
Sample Name: S96T000574 SAM Date: 04/30/1996 04:38:27
Data File : C:\DX\DATA\96042941.d23
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 23 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	104	638	2	
2	1.11	fluoride	0.963	102	530	2	3.75
3	1.21		0.000	78	421	2	
4	1.67	chloride	0.728	97	459	1	0.81
5	2.00	nitrite	51.304	3772	22299	1	-0.66
6	3.51	nitrate	9.086	336	2524	1	6.04
7	5.01	phosphate	17.460	221	3271	1	1.62
8	6.72	sulfate	16.454	468	7748	1	3.28
9	8.75	oxalate	341.515	7202	141098	1	2.50
		Totals	437.510	12380	178989		

File: 96042941.d23 Sample: S96T000574 SAM



Data Reprocessed On 05/07/1996 09:50:05

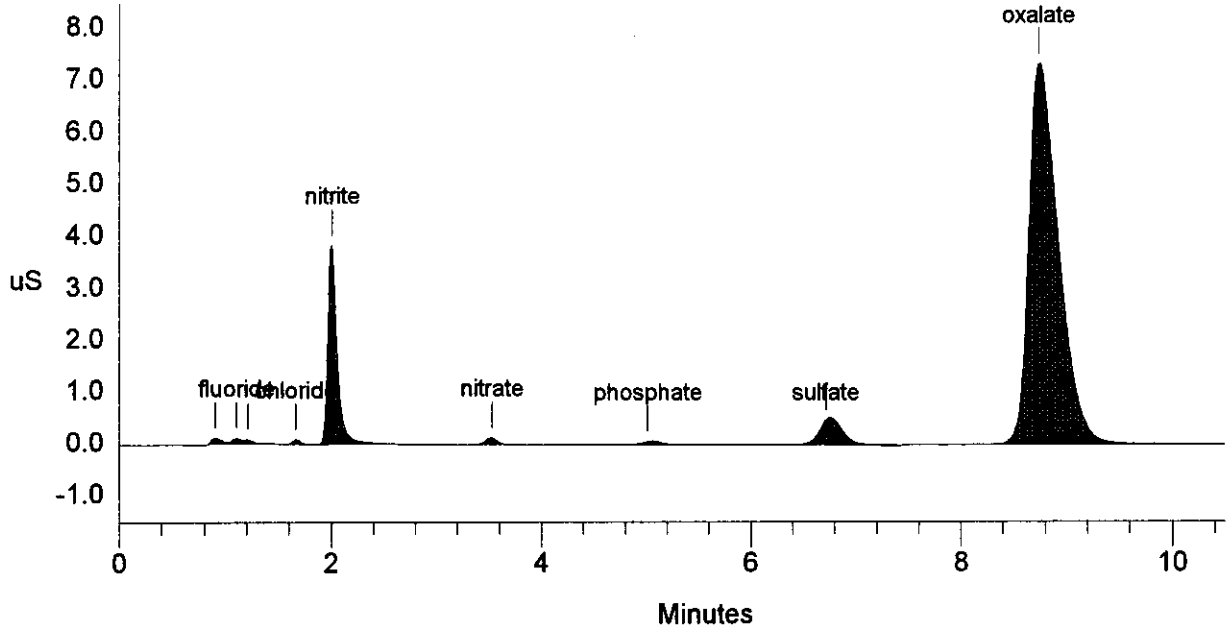
Sample Name: S96T000574 DUP Date: 04/30/1996 04:52:55
Data File : C:\DX\DATA\96042941.d24
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 24 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	99	579	2	
2	1.11	fluoride	0.981	103	546	2	3.75
3	1.21		0.000	73	382	2	
4	1.67	chloride	0.673	88	424	1	0.81
5	2.01	nitrite	52.043	3831	22635	1	-0.33
6	3.53	nitrate	4.932	123	875	1	6.44
7	5.01	phosphate	5.112	55	870	1	1.62
8	6.72	sulfate	16.711	472	7880	1	3.28
9	8.75	oxalate	344.283	7313	142278	1	2.50
		Totals	424.733	12157	176469		

File: 96042941.d24 Sample: S96T000574 DUP



Data Reprocessed On 05/07/1996 09:50:07

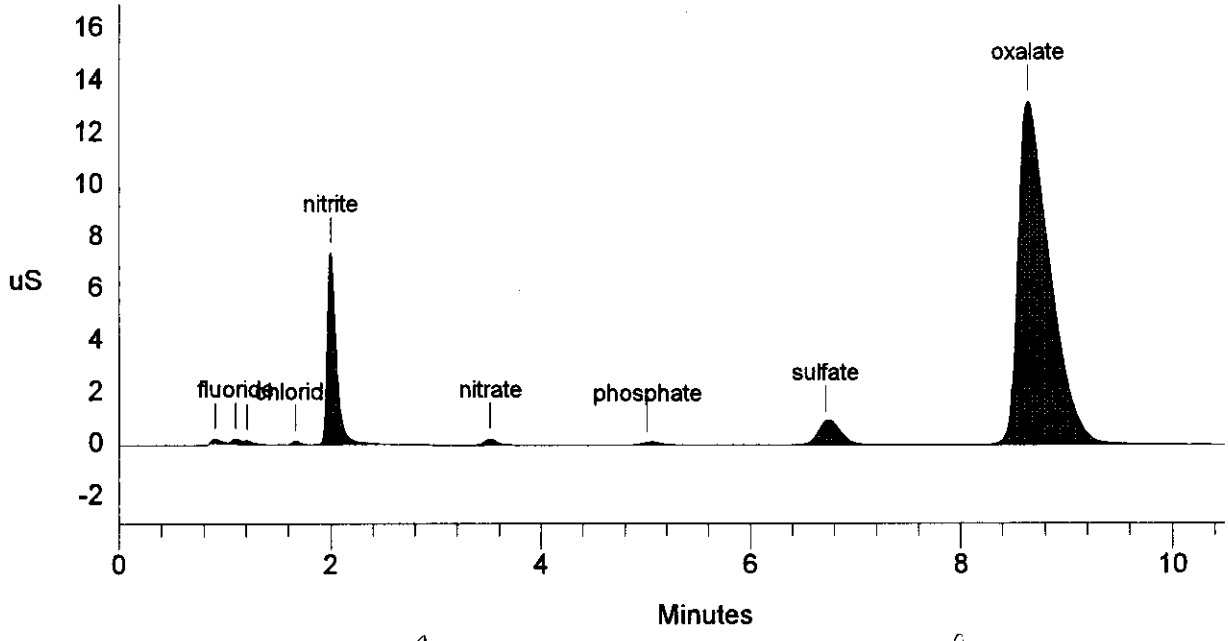
Sample Name: S96T000574 DUP Date: 04/30/1996 05:11:35
Data File : C:\DX\DATA\96042941.d25
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 25 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	178	1023	2	
2	1.10	fluoride	0.862	202	1127	2	3.13
3	1.21		0.000	141	760	2	
4	1.67	chloride	0.635	157	766	1	0.81
5	2.00	nitrite	51.534	7408	43813	1	-0.66
6	3.51	nitrate	3.719	233	1736	1	6.04
7	5.01	phosphate	4.125	99	1407	1	1.62
8	6.72	sulfate	15.116	906	14112	1	3.28
9	8.64	oxalate	336.602	13193	272920	1	1.25
		Totals	412.593	22517	337664		

File: 96042941.d25 Sample: S96T000574 DUP



This was run to prove that there was no error in dup, that the NO_3 & PO_4 really are that different. MF

Data Reprocessed On 05/07/1996 09:50:10

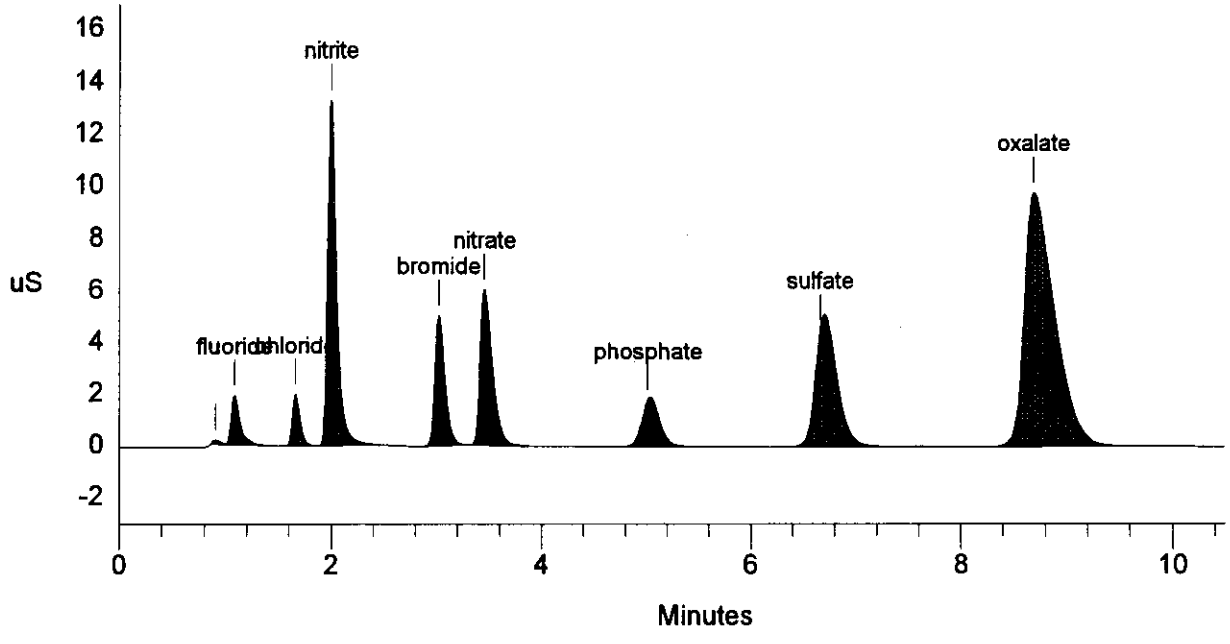
Sample Name: S96T000574 SPK Date: 04/30/1996 05:23:06
Data File : C:\DX\DATA\96042941.d26
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 26 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	21	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	168	867	2	
2	1.09	fluoride	12.863	1895	11103	2	1.88
3	1.66	chloride	15.753	1991	10103	1	0.40
4	2.00	nitrite	175.194	13291	79370	1	-0.66
5	3.02	bromide	111.573	5052	33415	1	2.03
6	3.45	nitrate	124.372	6038	48929	1	4.23
7	5.01	phosphate	114.761	1775	22528	1	1.62
8	6.67	sulfate	140.503	4528	72434	1	2.46
9	8.69	oxalate	466.199	9761	194822	1	1.88
		Totals	1161.217	44499	473570		

File: 96042941.d26 Sample: S96T000574 SPK



LABCORE Data Entry Template for Worklist# 8138

96042941.D01 96042951.D02 96043051.D14 -> D21

Analyst: RS **Instrument:** IC00 _____ **Book#** 133N9-E

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 FOR IC RECORD SAMPLE LEFT RTS!

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T002024	0		@IC-01	LIQUID	96000174	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T002024	0		@IC-01	LIQUID		
5	SPK	S96T002024	0		@IC-01	LIQUID		
6	SAMPLE	S96T002025	0		@IC-01	LIQUID	96000174	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S96T002025	0		@IC-01	LIQUID		

Final page for worklist # 8138

Rae Ann Green 4-30-96
Analyst Signature **Date**

Analyst Signature **Date**

Exported 5/7
Inshell 5/7 GMF

uploaded 5/7 Jan Frye
Validated 5/7 Jan Frye

Data Entry Comments: Ran S96T2024 untrip. due to oxalte on Dup (computer error)

per direction of Jan Frye

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 8138

Analyst: RAG **Instrument:** IC01 **Book#** 133N9F

Method: LA-533705 Rev/Mod D-1

Worklist Comment: C-106 FOR IC RECORD SAMPLE LEFT RTS!

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.84e+01	98.983	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.88e+01	99.747	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.76e02	5.96e+02	103.472	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	5.70e+02	99.130	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	6.33e+02	103.094	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.65e+02	103.480	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.41e+02	101.585	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.37e02	5.54e+02	103.166	% Recovery
3	SAMPLE	S96T002024		0	@IC-01	F-02	LIQUID	N/A	2.011e+02	14.440	ug/mL
3	SAMPLE	S96T002024		0	@IC-01	CL-02	LIQUID	N/A	2.579e+02	18.890	ug/mL
3	SAMPLE	S96T002024		0	@IC-01	NO2-02	LIQUID	N/A	2.594e+04	118.900	ug/mL
3	SAMPLE	S96T002024		0	@IC-01	NO3-02	LIQUID	N/A	9.811e+02	155.500	ug/mL
3	SAMPLE	S96T002024		0	@IC-01	PO4-02	LIQUID	N/A	4.419e+02	132.100	ug/mL
3	SAMPLE	S96T002024		0	@IC-01	SO4-02	LIQUID	N/A	6.686e+03	151.000	ug/mL
3	SAMPLE	S96T002024		0	@IC-01	OXALATE2	LIQUID	N/A	3.177e+03	116.700	ug/mL
4	DUP	S96T002024		0	@IC-01	F-02	LIQUID	2.01e+02	2.09e+02	3.902	RPD
4	DUP	S96T002024		0	@IC-01	CL-02	LIQUID	2.58e+02	2.66e+02	3.053	RPD
4	DUP	S96T002024		0	@IC-01	NO2-02	LIQUID	2.59e+04	2.79e+04	7.435	RPD
4	DUP	S96T002024		0	@IC-01	NO3-02	LIQUID	9.81e+02	1.01e+03	2.913	RPD
4	DUP	S96T002024		0	@IC-01	PO4-02	LIQUID	4.42e+02	4.80e+02	8.243	RPD
4	DUP	S96T002024		0	@IC-01	SO4-02	LIQUID	6.69e+03	7.20e+03	7.343	RPD
4	DUP	S96T002024		0	@IC-01	OXALATE2	LIQUID	3.18e+03	3.45e+03	8.145	RPD
5	SPK	S96T002024		0	@IC-01	F-02	LIQUID	5.90e01	7.52e+01	127.458	% Recovery
5	SPK	S96T002024		0	@IC-01	CL-02	LIQUID	7.90e01	7.73e+01	97.848	% Recovery
5	SPK	S96T002024		0	@IC-01	NO2-02	LIQUID	5.76e02	7.77e+02	134.896	% Recovery
5	SPK	S96T002024		0	@IC-01	NO3-02	LIQUID	6.14e02	5.97e+02	97.231	% Recovery
5	SPK	S96T002024		0	@IC-01	PO4-02	LIQUID	5.46e02	5.53e+02	101.282	% Recovery
5	SPK	S96T002024		0	@IC-01	SO4-02	LIQUID	6.31e02	7.08e+02	112.203	% Recovery
5	SPK	S96T002024		0	@IC-01	OXALATE2	LIQUID	5.37e02	5.71e+02	106.331	% Recovery
6	SAMPLE	S96T002025		0	@IC-01	F-02	LIQUID	N/A	1.914e+02	14.440	ug/mL
6	SAMPLE	S96T002025		0	@IC-01	CL-02	LIQUID	N/A	2.815e+02	18.890	ug/mL
6	SAMPLE	S96T002025		0	@IC-01	NO2-02	LIQUID	N/A	2.741e+04	118.900	ug/mL
6	SAMPLE	S96T002025		0	@IC-01	NO3-02	LIQUID	N/A	9.690e+02	155.500	ug/mL

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8138

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
6	SAMPLE	S96T002025		0	@IC-01	PO4-02	LIQUID	N/A	4.876e+02	132.100	ug/mL
6	SAMPLE	S96T002025		0	@IC-01	SO4-02	LIQUID	N/A	7.190e+03	151.000	ug/mL
6	SAMPLE	S96T002025		0	@IC-01	OXALATE2	LIQUID	N/A	3.106e+03	116.700	ug/mL
7	DUP	S96T002025		0	@IC-01	F-02	LIQUID	1.91e+02	2.09e+02	9.000	RPD
7	DUP	S96T002025		0	@IC-01	CL-02	LIQUID	2.82e+02	2.93e+02	3.826	RPD
7	DUP	S96T002025		0	@IC-01	NO2-02	LIQUID	2.74e+04	3.05e+04	10.708	RPD
7	DUP	S96T002025		0	@IC-01	NO3-02	LIQUID	9.69e+02	1.10e+03	12.663	RPD
7	DUP	S96T002025		0	@IC-01	PO4-02	LIQUID	4.88e+02	5.58e+02	13.384	RPD
7	DUP	S96T002025		0	@IC-01	SO4-02	LIQUID	7.19e+03	7.98e+03	10.415	RPD
7	DUP	S96T002025		0	@IC-01	OXALATE2	LIQUID	3.11e+03	3.47e+03	10.942	RPD

Final page for worklist# 8138

Analyst Signature **Date**

Analyst Signature **Date**

Joann Luye 5/7/96
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Reprocessed On 05/07/1996 09:45:11

Sample Name: BLANK	Date: 04/30/1996 07:02:24
Data File : C:\DX\DATA\96042941.d01	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 1	Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column

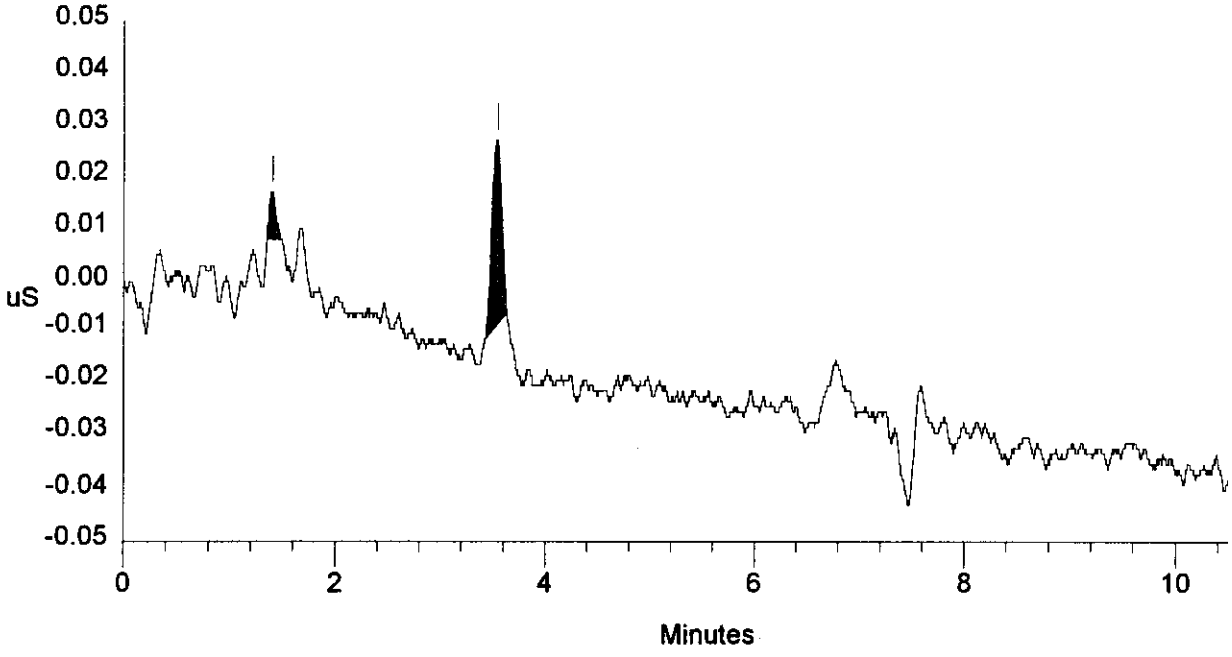
H Anastas for RA Green 5-21-96

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	3.55		0.000	35	227	1	
		Totals	0.000	35	227		

File: 96042941.d01 Sample: BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 642 TO 648.

Data Reprocessed On 05/07/1996 09:45:13

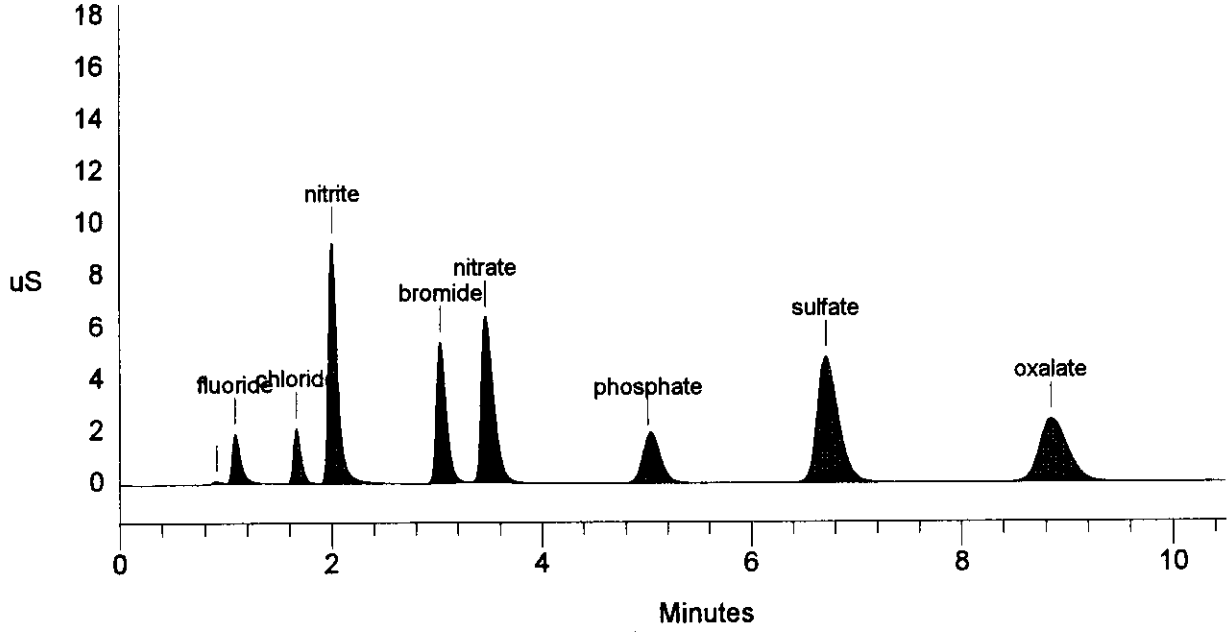
Sample Name: STANDARD #133N9-E Date: 04/30/1996 07:45:15
Data File : C:\DX\DATA\96042951.d02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	86	411	2	
2	1.09	fluoride	58.396	1886	10450	2	1.88
3	1.67	chloride	78.773	2122	10510	1	0.81
4	2.01	nitrite	595.712	9228	55543	1	-0.33
5	3.03	bromide	569.959	5424	35569	1	2.48
6	3.46	nitrate	633.284	6368	51911	1	4.43
7	5.01	phosphate	564.690	1791	23061	1	1.62
8	6.72	sulfate	640.618	4844	68559	1	3.28
9	8.85	oxalate	553.759	2438	46407	1	3.75
		Totals	3695.190	34187	302421		

File: 96042951.d02 Sample: STANDARD #133N9-E



Data Reprocessed On 05/07/1996 09:45:16

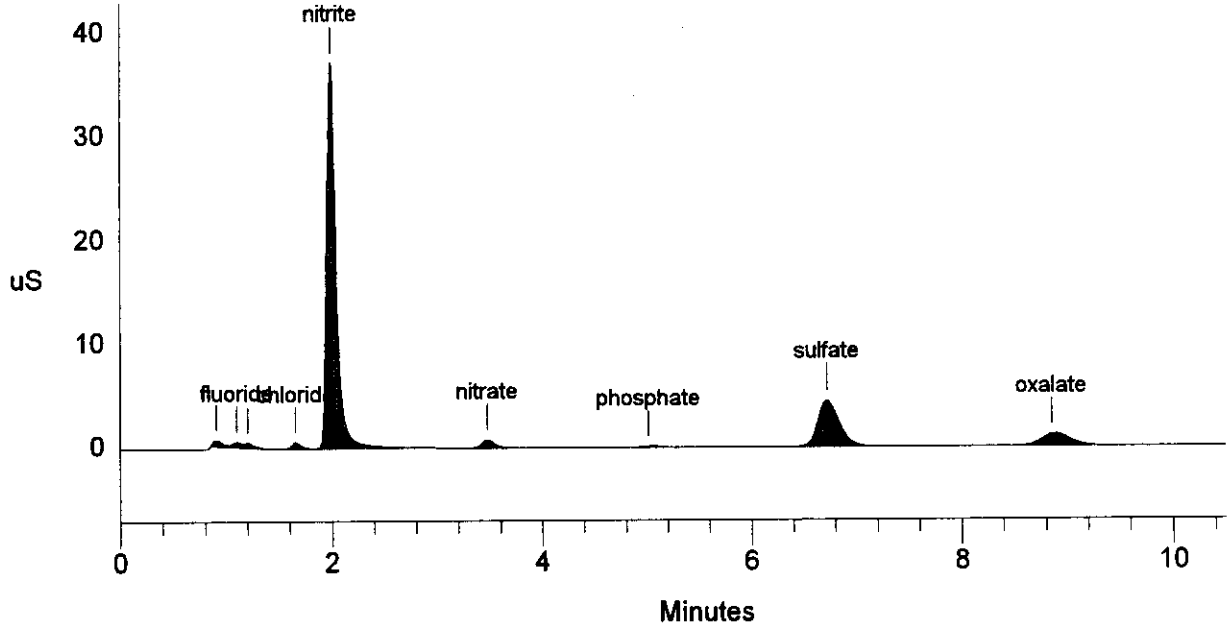
Sample Name: S96T002024 Date: 04/30/1996 13:52:03
Data File : C:\DX\DATA\96043051.d14
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 14 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	605	3563	2	
2	1.10	fluoride	201.098	520	3016	2	3.13
3	1.20		0.000	470	2831	2	
4	1.65	chloride	257.901	574	3096	1	0.00
5	1.99	nitrite	25944.694	37152	231849	1	-0.99
6	3.47	nitrate	981.111	796	6283	1	4.83
7	5.01	phosphate	441.905	103	1499	1	1.62
8	6.72	sulfate	6686.412	4559	64953	1	3.28
9	8.85	oxalate	3177.456	1203	23888	1	3.75
		Totals	37690.578	45982	340979		

File: 96043051.d14 Sample: S96T002024



Data Reprocessed On 05/07/1996 09:45:35

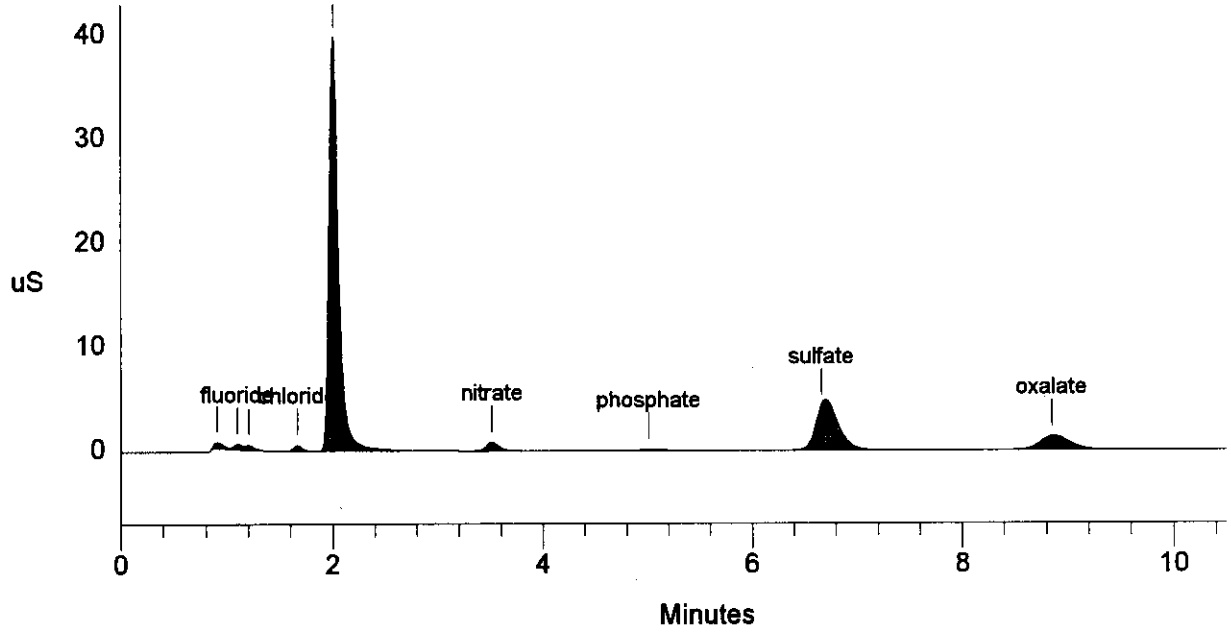
Sample Name: S96T002024 DUP Date: 04/30/1996 16:29:34
Data File : C:\DX\DATA\96043051.d21
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 21 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1111	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	610	3730	2	
2	1.10	fluoride	208.814	556	3144	2	3.13
3	1.21		0.000	500	3039	2	
4	1.67	chloride	266.157	603	3196	1	0.81
5	2.01	nitrite	27892.284	39855	250417	1	-0.33
6	3.51	nitrate	1009.735	839	6499	1	6.04
7	5.01	phosphate	480.089	124	1640	1	1.62
8	6.67	sulfate	7199.416	4350	70088	1	2.46
9	8.85	oxalate	3448.976	1334	25978	1	3.75
		Totals	40505.472	48771	367730		

File: 96043051.d21 Sample: S96T002024 DUP



Data Reprocessed On 05/07/1996 09:45:22

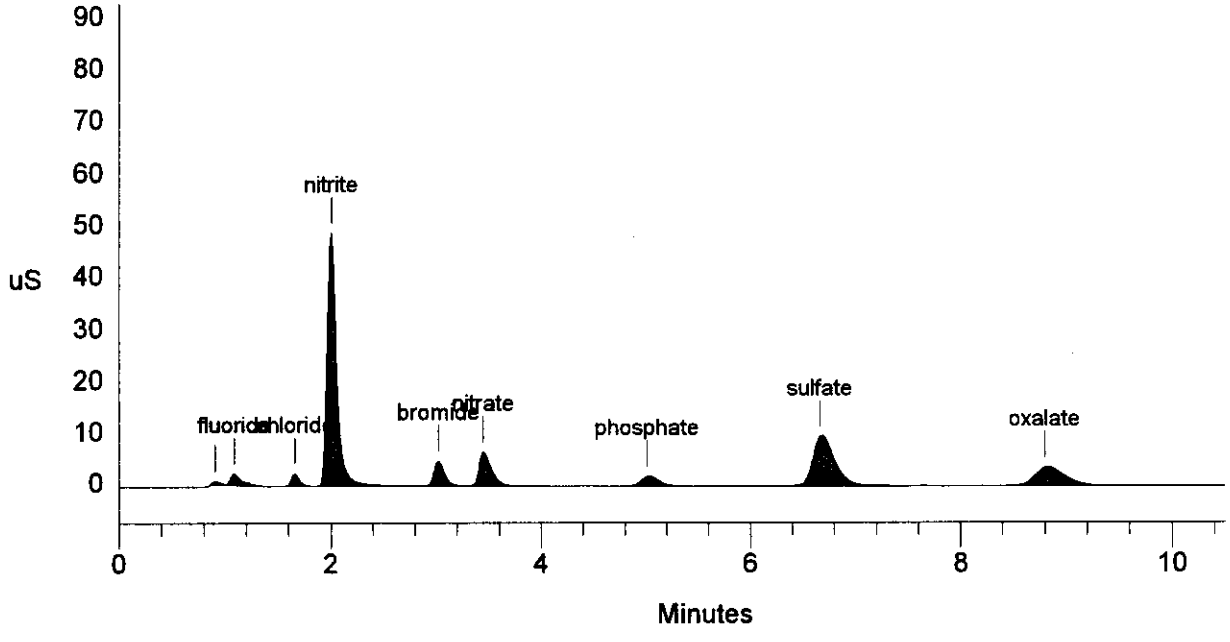
Sample Name: S96T002024 SPIKE Date: 04/30/1996 15:09:38
Data File : C:\DX\DATA\96043051.d17
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 17 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	644	3467	2	
2	1.09	fluoride	960.487	2189	15940	2	1.88
3	1.66	chloride	1038.718	2349	12635	1	0.40
4	2.01	nitrite	33790.581	48792	307732	1	-0.33
5	3.02	bromide	5772.994	4771	32655	1	2.03
6	3.45	nitrate	7014.431	6490	52285	1	4.02
7	5.01	phosphate	6026.574	1785	22357	1	1.62
8	6.67	sulfate	13838.589	9521	137963	1	2.46
9	8.80	oxalate	8945.496	3474	68655	1	3.13
		Totals	77387.869	80015	653689		

File: 96043051.d17 Sample: S96T002024 SPIKE



Data Reprocessed On 05/07/1996 09:45:18

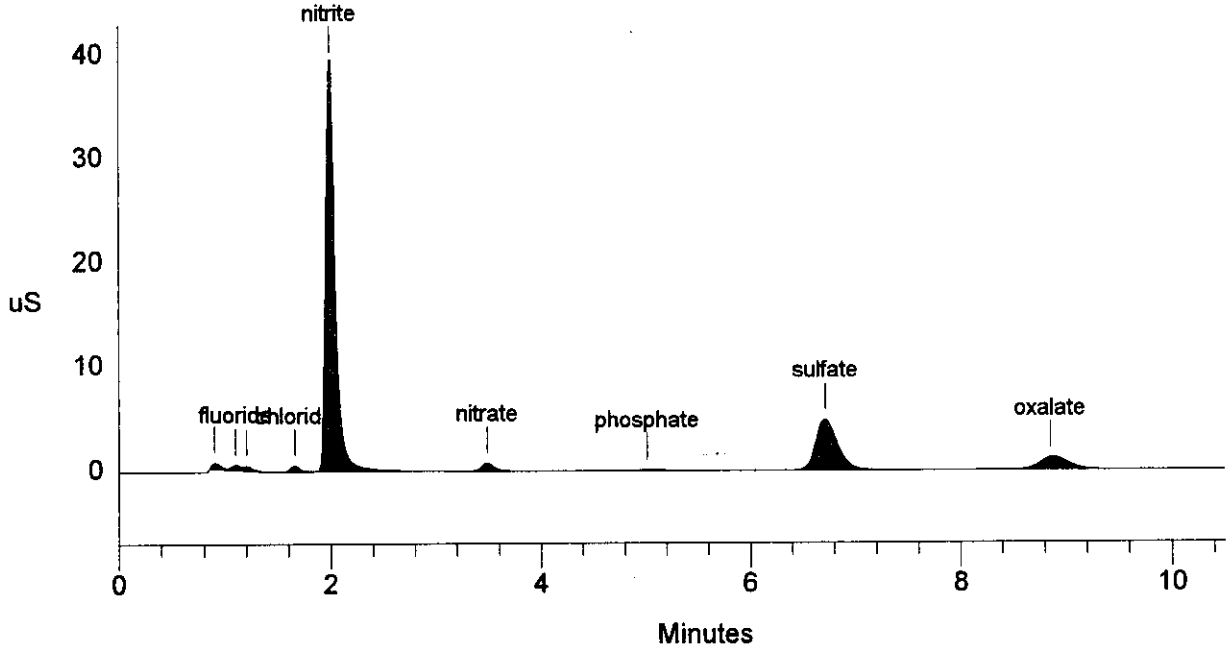
Sample Name: S96T002025 Date: 04/30/1996 14:09:04
Data File : C:\DX\DATA\96043051.d15
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 15 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	593	3420	2	
2	1.10	fluoride	191.359	524	2854	2	3.13
3	1.20		0.000	493	3014	2	
4	1.66	chloride	281.536	606	3382	1	0.40
5	1.99	nitrite	27409.609	39301	245799	1	-0.99
6	3.49	nitrate	968.985	799	6192	1	5.23
7	5.01	phosphate	487.578	116	1667	1	1.62
8	6.72	sulfate	7190.100	4855	69995	1	3.28
9	8.85	oxalate	3106.309	1182	23341	1	3.75
		Totals	39635.475	48469	359664		

File: 96043051.d15 Sample: S96T002025



Data Reprocessed On 05/07/1996 09:45:33

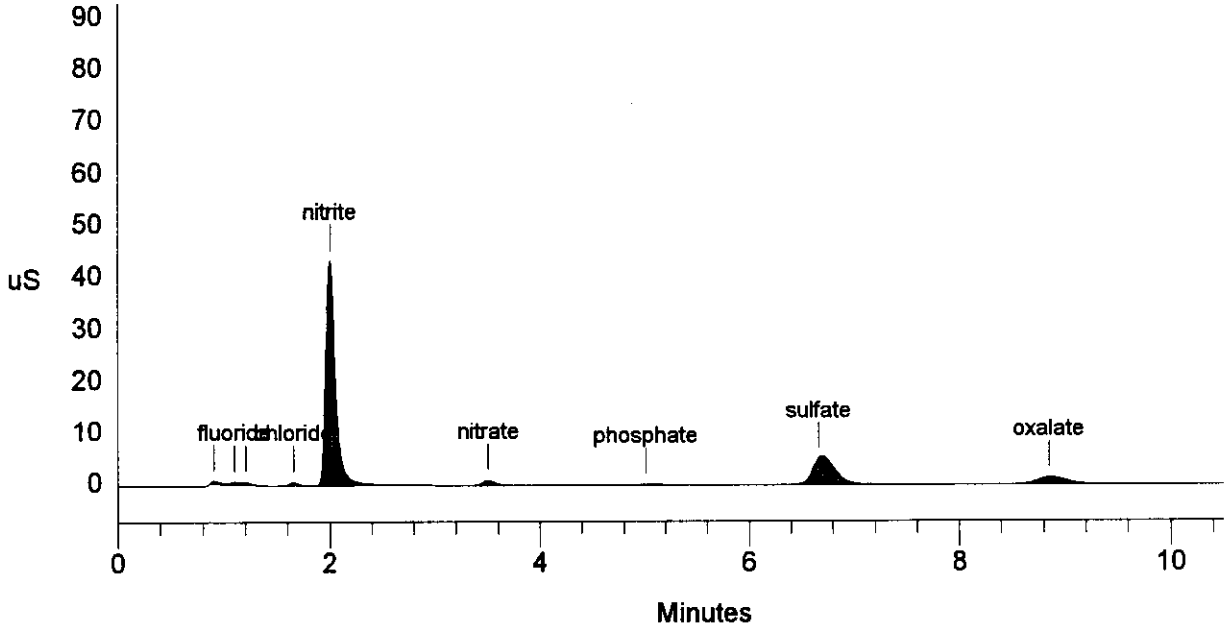
Sample Name: S96T002025 DUP Date: 04/30/1996 16:11:29
Data File : C:\DX\DATA\96043051.d20
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 20 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	620	3549	2	
2	1.10	fluoride	208.781	567	3143	2	3.13
3	1.21		0.000	530	3135	2	
4	1.66	chloride	293.405	656	3525	1	0.40
5	2.01	nitrite	30534.239	43328	275883	1	-0.33
6	3.51	nitrate	1097.499	921	7159	1	5.84
7	5.01	phosphate	557.874	138	1925	1	1.62
8	6.67	sulfate	7979.329	4976	77925	1	2.46
9	8.85	oxalate	3471.311	1348	26150	1	3.75
		Totals	44142.437	53085	402394		

File: 96043051.d20 Sample: S96T002025 DUP



LABCORE Data Entry Template for Worklist# 9411

Analyst: KBC **Instrument:** IC00 _____ **Book#** 136119-B

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
Blank Prep								
3	SAMPLE	S96T003178	0	W	@IC-01	SOLID	96000082	C-106 GRAB
	Analytes Requested:				CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T003178	0	W	@IC-01	SOLID		
5	SPK	S96T003178	0	W	@IC-01	SOLID		
6	SAMPLE	S96T003179	0	W	@IC-01	SOLID	96000082	C-106 GRAB
	Analytes Requested:				CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S96T003179	0	W	@IC-01	SOLID		

Final page for worklist # 9411

Analyst Signature **Date** 6/7/96 **Analyst Signature** **Date**

Exported 9411jun.csv
In Shell 6-10-96
Uploaded 6-10-96 HLa

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 9411

Analyst: krq **Instrument:** IC01 **Book#** 136N9B

Method: \AS331DS Rev/Mod D-1

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Worklist Comment: C-106 IC. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	6.28e+01	106.441	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.76e+01	98.228	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.42e02	5.09e+02	93.911	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	6.08e+02	105.739	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	6.39e+02	104.072	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.63e+02	103.114	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.72e+02	106.498	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.08e02	5.46e+02	107.480	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	5.77e+00	5.770	ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	F-02	SOLID	N/A	2.144e+02	109.100	ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	CL-02	SOLID	N/A	2.918e+02	142.600	ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	NO2-02	SOLID	N/A	1.316e+04	897.500	ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	NO3-02	SOLID	N/A	2.958e+03	1174.000	ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	PO4-02	SOLID	N/A	1.658e+03	997.500	ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	SO4-02	SOLID	N/A	5.343e+03	1140.000	ug/g
4	SAMPLE	S96T003178	W	0	@IC-01	OXALATE2	SOLID	N/A	3.076e+05	881.100	ug/g
5	DUP	S96T003178	W	0	@IC-01	F-02	SOLID	2.14e+02	2.67e+02	22.037	RPD
5	DUP	S96T003178	W	0	@IC-01	CL-02	SOLID	2.92e+02	3.10e+02	5.980	RPD
5	DUP	S96T003178	W	0	@IC-01	NO2-02	SOLID	1.32e+04	1.43e+04	8.000	RPD
5	DUP	S96T003178	W	0	@IC-01	NO3-02	SOLID	2.96e+03	3.80e+03	24.852	RPD
5	DUP	S96T003178	W	0	@IC-01	PO4-02	SOLID	1.66e+03	<1.40e3		RPD
5	DUP	S96T003178	W	0	@IC-01	SO4-02	SOLID	5.34e+03	5.23e+03	2.081	RPD
5	DUP	S96T003178	W	0	@IC-01	OXALATE2	SOLID	3.08e+05	3.19e+05	3.509	RPD
6	SPK	S96T003178	W	0	@IC-01	F-02	SOLID	5.90e01	6.25e+01	105.932	% Recovery
6	SPK	S96T003178	W	0	@IC-01	CL-02	SOLID	7.90e01	7.34e+01	92.911	% Recovery
6	SPK	S96T003178	W	0	@IC-01	NO2-02	SOLID	5.42e02	4.75e+02	87.638	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 9411

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S96T003178	0	W	@IC-01	NO3-02	SOLID	6.14e02	5.77e+02	93.974	% Recovery
6	SPK	S96T003178	0	W	@IC-01	PO4-02	SOLID	5.46e02	5.17e+02	94.689	% Recovery
6	SPK	S96T003178	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.17e+02	97.781	% Recovery
6	SPK	S96T003178	0	W	@IC-01	OXALATE2	SOLID	5.08e02	1.74e+02	34.252	% Recovery
7	SAMPLE	S96T003179	0	W	@IC-01	F-02	SOLID	N/A	4.946e+02	56.770	ug/g
7	SAMPLE	S96T003179	0	W	@IC-01	CL-02	SOLID	N/A	6.364e+02	74.240	ug/g
7	SAMPLE	S96T003179	0	W	@IC-01	NO2-02	SOLID	N/A	1.192e+04	467.300	ug/g
7	SAMPLE	S96T003179	0	W	@IC-01	NO3-02	SOLID	N/A	3.077e+03	610.900	ug/g
7	SAMPLE	S96T003179	0	W	@IC-01	PO4-02	SOLID	N/A	1.599e+03	519.200	ug/g
7	SAMPLE	S96T003179	0	W	@IC-01	SO4-02	SOLID	N/A	4.064e+03	593.500	ug/g
7	SAMPLE	S96T003179	0	W	@IC-01	OXALATE2	SOLID	N/A	1.174e+05	458.500	ug/g
8	DUP	S96T003179	0	W	@IC-01	F-02	SOLID	4.95e+02	1.42e+02	110.832	RPD
8	DUP	S96T003179	0	W	@IC-01	CL-02	SOLID	6.36e+02	2.61e+02	83.612	RPD
8	DUP	S96T003179	0	W	@IC-01	NO2-02	SOLID	1.19e+04	1.23e+04	3.306	RPD
8	DUP	S96T003179	0	W	@IC-01	NO3-02	SOLID	3.08e+03	4.31e+03	33.288	RPD
8	DUP	S96T003179	0	W	@IC-01	PO4-02	SOLID	1.60e+03	1.98e+03	21.229	RPD
8	DUP	S96T003179	0	W	@IC-01	SO4-02	SOLID	4.06e+03	3.85e+03	5.310	RPD
8	DUP	S96T003179	0	W	@IC-01	OXALATE2	SOLID	1.17e+05	4.30e+04	92.500	RPD

Comments Section:

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Comments for sample# S96T003178 **and test** @IC-01 .
Organic interferences

Final page for worklist# 9411

Analyst Signature **Date**

Analyst Signature **Date**

H Anastas 6-10-96
Reviewer Signature **Date**
Validated 6.10.96

Units shown for QC (BLK/BKG) may not reflect the actual units.

A-0010-IC DATA FILE/WORKLIST RESOLUTION 10-Jun-96

Worklist#: 9411

		Seq	Type	Sample #
-	=>	1	CCB	
	=>	2	CCV	
	=>	3	BLNK-PREP	
	=>	4	SAMPLE	S96T003178
	=>	5	DUP	S96T003178
	=>	6	SPK	S96T003178
	=>	7	SAMPLE	S96T003179
	=>	8	DUP	S96T003179
+				

Data File: 9411JUN.CSV

	Seq#	Data File	Sample Name	Dilution
-	1	96060621.d01	CCB	1.00
	2	96060621.d02	CCV 136N9-B	101.00
	3	96060651.d01	BLANK PREP	1.00
	4	96060651.d02	S96T003178 SAMPL	41.00
	5	96060651.d03	S96T003178 DUP	41.00
	6	96060641.d04	S96T003178 SPIKE	41.00
	7	96060641.d05	S96T003179 SAMPL	11.00
	8	96060641.d06	S96T003179 DUP	11.00
+				

Save(F4) Abort(Shift-F3) ListFiles(Shift-F1) UploadFile(F8)

Data Reprocessed On 06/10/1996 08:41:30

Sample Name: CCB Date: 06/06/1996 19:47:16
Data File : C:\DX\DATA\96060621.d01
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1 Detector: CDM-1
Analyst : Column: AG4A/AS4A anion column

WHC-SD-WM-DP-183, REV 0

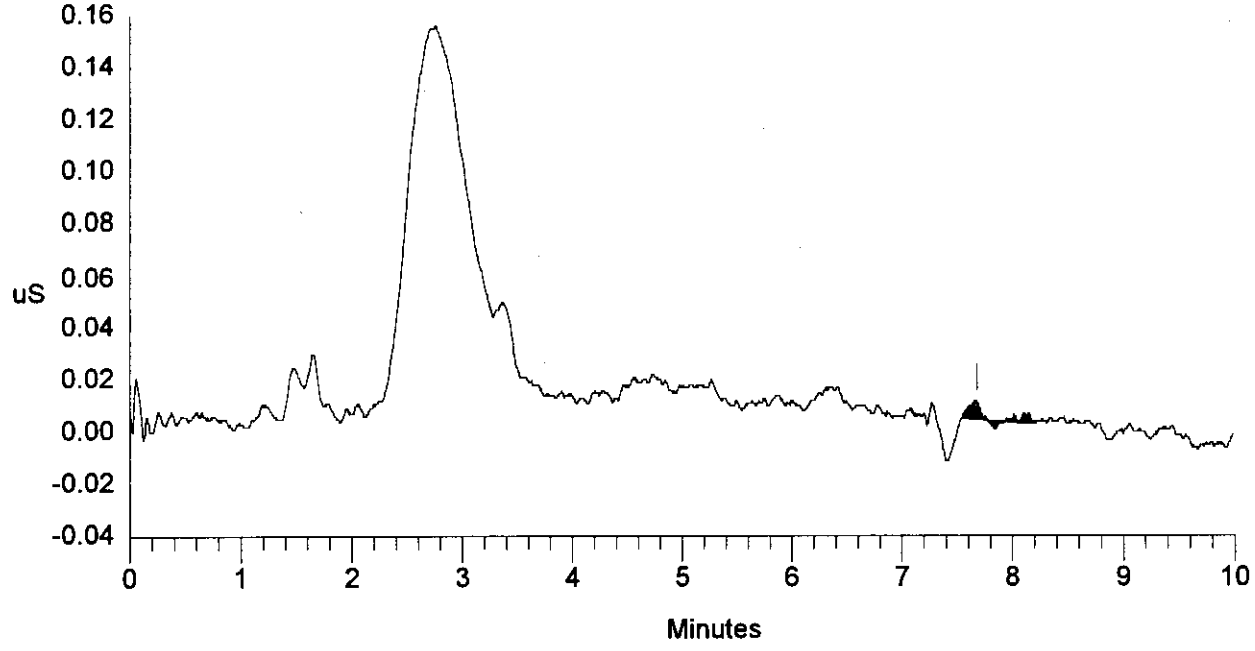
6/11/96

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

File: 96060621.d01 Sample: CCB



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 653 TO 660.

Data Reprocessed On 06/10/1996 08:41:32

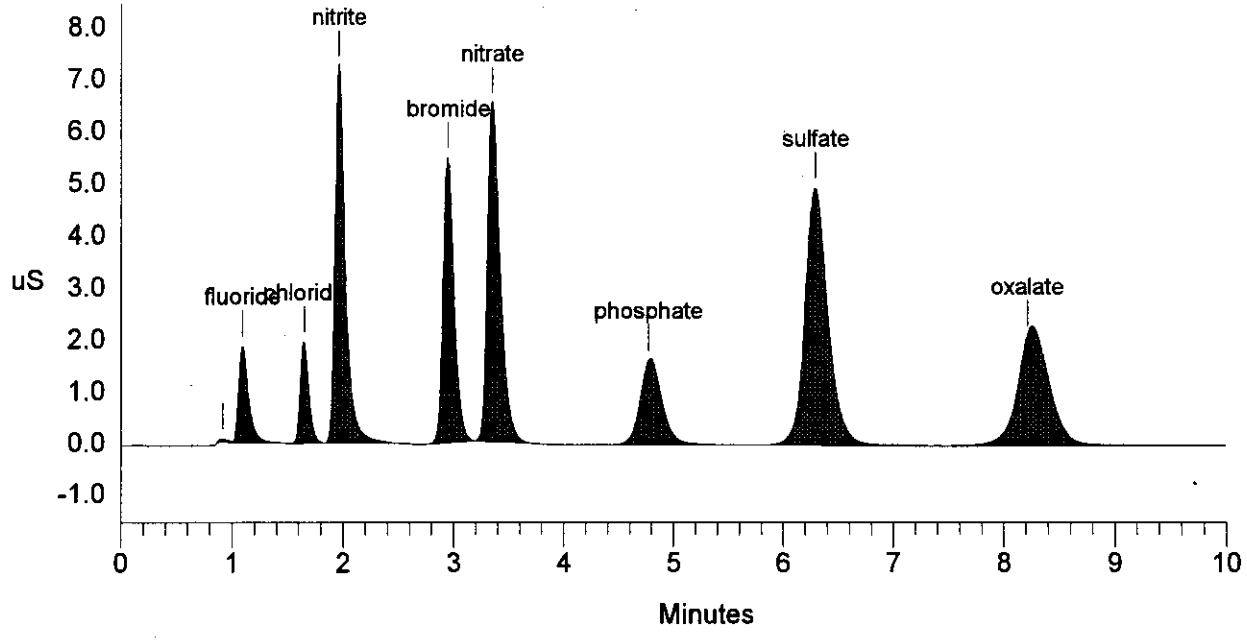
Sample Name: CCV 136N9-B Date: 06/06/1996 19:59:54
Data File : C:\DX\DATA\96060621.d02
Method : C:\DX\METHOD\KIT.MET
WHC-SD-WM-DP-183, REV. 0
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	66	320	2	
2	1.09	fluoride	62.847	1860	11288	2	2.50
3	1.65	chloride	77.589	1958	10350	1	-0.40
4	1.96	nitrite	509.154	7250	47250	1	-2.65
5	2.95	bromide	607.649	5475	38009	1	-0.45
6	3.35	nitrate	639.207	6518	52415	1	1.01
7	4.77	phosphate	562.840	1630	22984	1	-3.24
8	6.29	sulfate	671.517	4937	71967	1	-3.28
9	8.21	oxalate	545.904	2115	45736	1	-3.75
		Totals	3676.706	31808	300318		

File: 96060621.d02 Sample: CCV 136N9-B



Data Reprocessed On 06/10/1996 08:41:35

Sample Name: BLANK PREP Date: 06/06/1996 23:32:34
Data File : C:\DX\DATA\96060651.d01
Method : C:\DX\METHOD\AUTOMEL.met
ACI Address: 1 System: 1 Inject#: 1 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

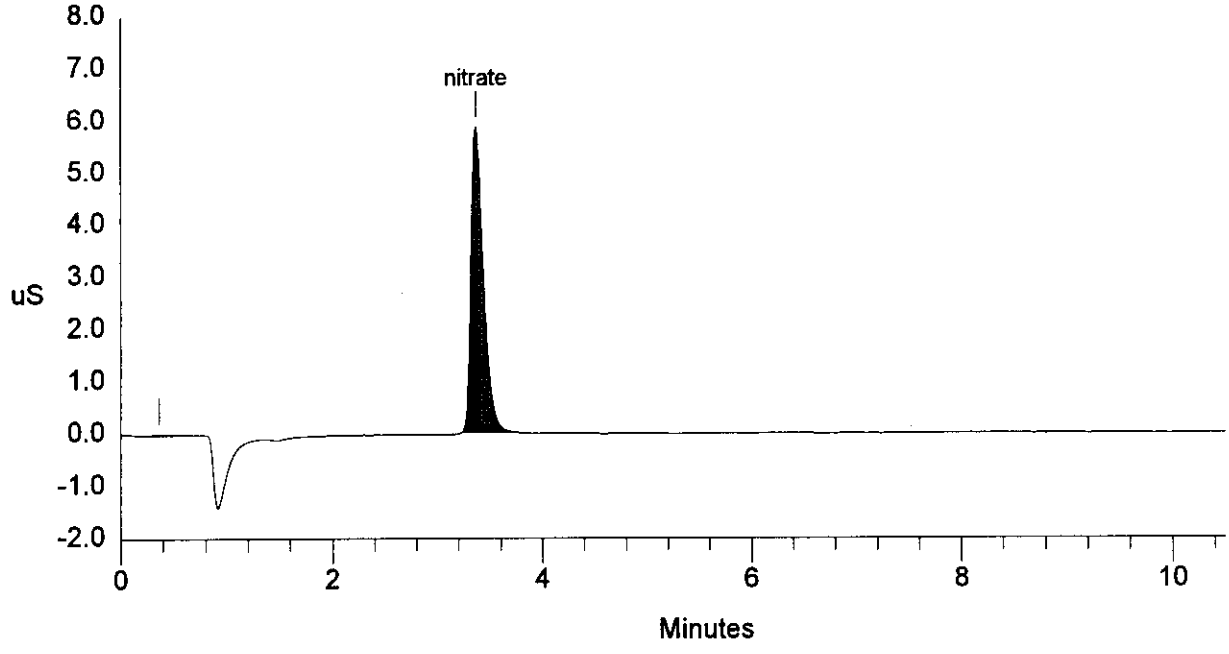
WHC-SD-WM-DP-183, REV. 0

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.36		0.000	16	141	1	
2	3.37	nitrate	5.768	5856	47604	1	1.61
		Totals	5.768	5872	47746		

File: 96060651.d01 Sample: BLANK PREP



Data Reprocessed On 06/10/1996 08:41:37

Sample Name: S96T003178 SAMPLE Date: 06/07/1996 02:36:45
Data File : C:\DX\DATA\96060651.d02
Method : C:\DX\METHOD\AUTOMEL.met
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

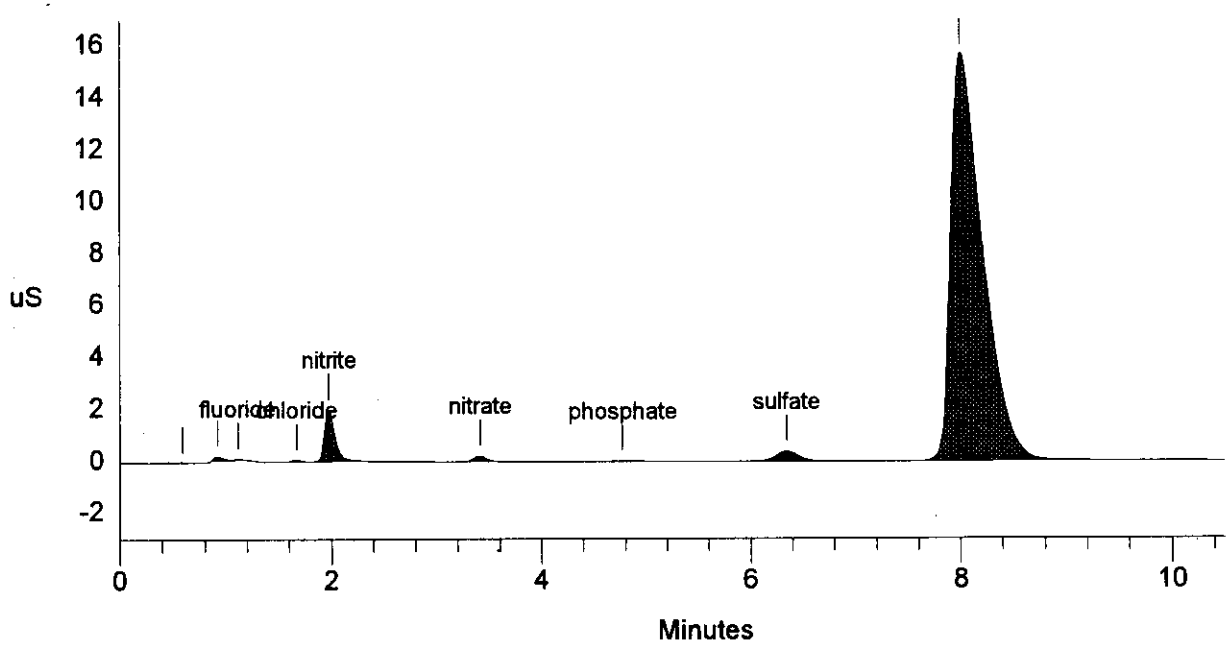
WHC-SD-WM-DP-183, REV. 0

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	41	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	0.92		0.000	140	787	1	
3	1.11	fluoride	1.048	39	159	1	4.05
4	1.67	chloride	1.426	86	461	1	1.21
5	1.97	nitrite	64.319	1993	13966	1	-1.99
6	3.41	nitrate	14.455	230	1856	1	3.02
7	4.77	phosphate	8.101	28	683	1	-3.24
8	6.35	sulfate	26.109	403	6171	1	-2.46
9	8.00	oxalate	1503.251	15652	330950	1	-6.25
		Totals	1618.708	18570	355033		

File: 96060651.d02 Sample: S96T003178 SAMPLE



Data Reprocessed On 06/10/1996 08:41:40

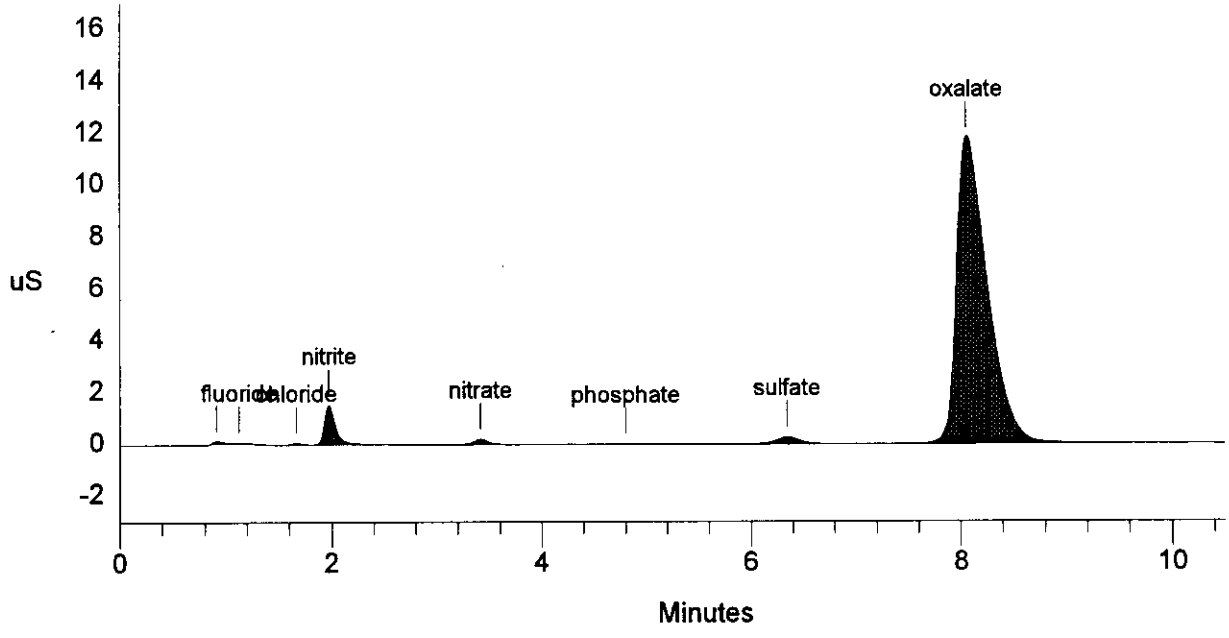
Sample Name: S96T003178 DUP Date: 06/07/1996 02:49:57
Data File : C:\DX\DATA\96060651.d03
Method : C:\DX\METHOD\AUTOMEL.met
WHC-SD-WM-DP-183, REV. 0
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	41	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	103	582	1	
2	1.12	fluoride	0.931	28	107	1	4.67
3	1.67	chloride	1.080	65	348	1	0.81
4	1.97	nitrite	49.619	1508	10557	1	-1.99
5	3.41	nitrate	13.242	199	1610	1	3.02
6	4.80	phosphate	2.905	14	168	1	-2.70
7	6.35	sulfate	18.219	265	4104	1	-2.46
8	8.05	oxalate	1109.657	11775	239741	1	-5.62
		Totals	1195.654	13957	257216		

File: 96060651.d03 Sample: S96T003178 DUP



Data Reprocessed On 06/10/1996 08:41:42

Sample Name: S96T003178 SPIKE Date: 06/07/1996 03:03:11
Data File : C:\DX\DATA\96060641.d04
Method : C:\DX\METHOD\AUTOMEL.met
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

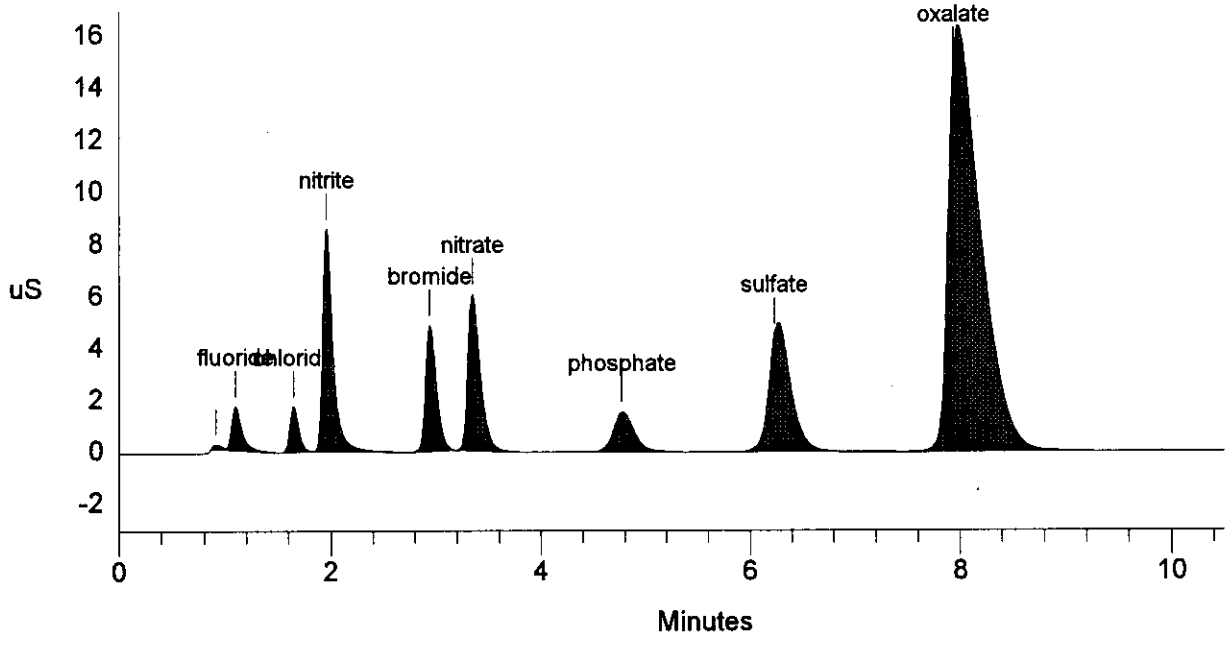
WHC-SD-WM-DP-183, REV. 0

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	41	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	175	972	2	
2	1.10	fluoride	26.033	1700	11530	2	2.80
3	1.65	chloride	30.799	1778	10118	1	-0.40
4	1.96	nitrite	254.479	8552	58538	1	-2.65
5	2.94	bromide	226.043	4861	34721	1	-0.68
6	3.35	nitrate	245.336	6028	49454	1	1.01
7	4.77	phosphate	215.069	1545	21603	1	-3.24
8	6.24	sulfate	273.061	4562	72093	1	-4.10
9	7.95	oxalate	1572.970	14919	347486	1	-6.87
		Totals	2843.789	44121	606513		

File: 96060641.d04 Sample: S96T003178 SPIKE



Data Reprocessed On 06/10/1996 08:41:45

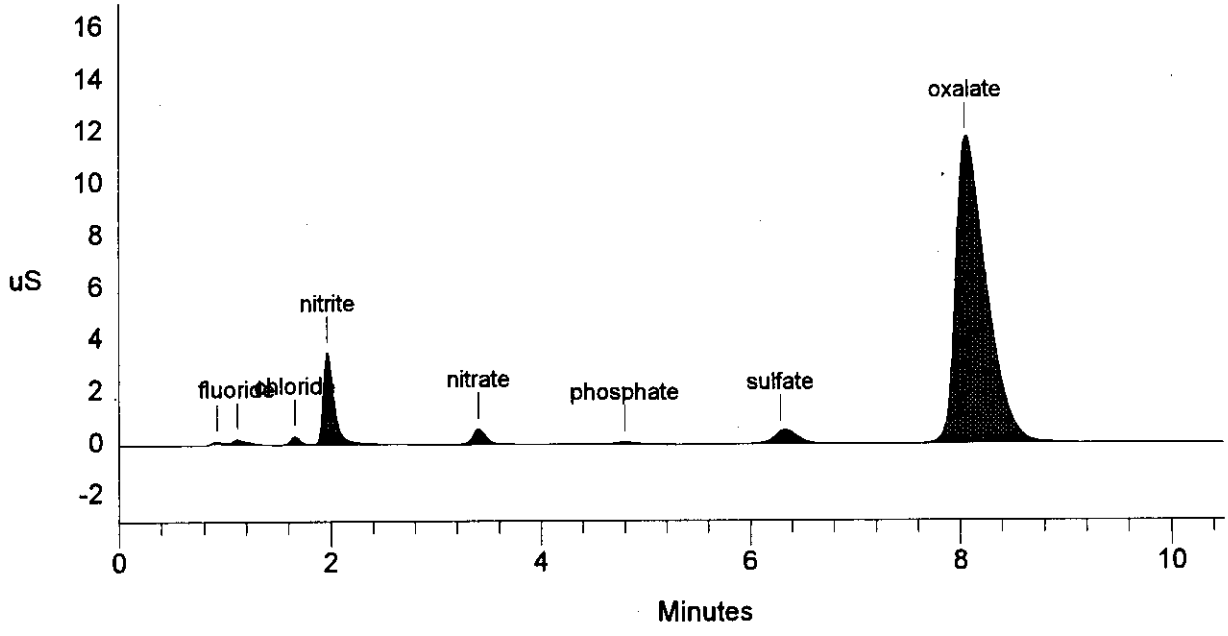
Sample Name: S96T003179 SAMPLE	Date: 06/07/1996 03:16:24
Data File : C:\DX\DATA\96060641.d05	**WHC-SD-WM-DP-183, REV. 0**
Method : C:\DX\METHOD\AUTOMEL.met	
ACI Address: 1 System: 1 Inject#: 5	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.92		0.000	96	557	2	
2	1.11	fluoride	1.246	193	1767	2	4.05
3	1.66	chloride	1.603	326	1940	1	0.40
4	1.97	nitrite	30.021	3507	25034	1	-2.32
5	3.40	nitrate	7.750	579	4792	1	2.62
6	4.80	phosphate	4.027	78	1370	1	-2.70
7	6.29	sulfate	10.238	471	9332	1	-3.28
8	8.05	oxalate	295.614	11690	237963	1	-5.62
		Totals	350.499	16939	282756		

File: 96060641.d05 Sample: S96T003179 SAMPLE



Data Reprocessed On 06/10/1996 08:41:47

Sample Name: S96T003179 DUP Date: 06/07/1996 03:29:38
Data File : C:\DX\DATA\96060641.d06
Method : C:\DX\METHOD\AUTOMEL.met
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

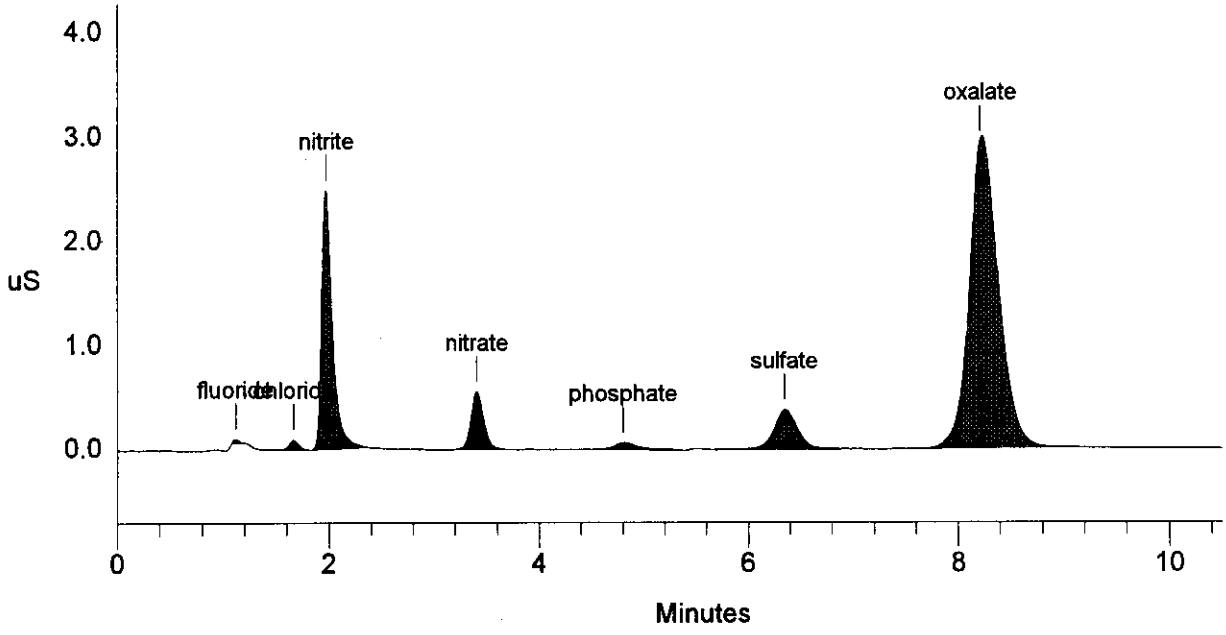
WHC-SD-WM-DP-183, REV. 0

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.11	fluoride	0.246	33	102	1	4.05
2	1.67	chloride	0.451	94	543	1	0.81
3	1.97	nitrite	21.244	2487	17417	1	-1.99
4	3.40	nitrate	7.462	552	4574	1	2.62
5	4.80	phosphate	3.421	70	1146	1	-2.70
6	6.35	sulfate	6.660	379	5834	1	-2.46
7	8.21	oxalate	74.384	2949	57463	1	-3.75
		Totals	113.869	6564	87079		

File: 96060641.d06 Sample: S96T003179 DUP



LABCORE Data Entry Template for Worklist# 9412

Analyst: KBC **Instrument:** IC00 IC01 **Book#** 136 N9-B

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
	Blank-Prep							
3	SAMPLE	S96T003181	0	W	@IC-01	SOLID	96000174	C-106 GRAB
		Analytes Requested:			CL-02	, F-02	, NO2-02	, NO3-02 , OXALATE2,
					PO4-02	, SO4-02		
4	DUP	S96T003181	0	W	@IC-01	SOLID		
5	SPK	S96T003181	0	W	@IC-01	SOLID		
6	SAMPLE	S96T003180	0	W	@IC-01	SOLID	96000174	C-106 GRAB
		Analytes Requested:			CL-02	, F-02	, NO2-02	, NO3-02 , OXALATE2
					PO4-02	, SO4-02		
7	DUP	S96T003180	0	W	@IC-01	SOLID		

Final page for worklist # 9412

Analyst Signature **Date** 6/7/96

Analyst Signature **Date**

Exported 94/2 jun. CSH
Inshell 6/10/96 JMF
uploaded 6-10-96 HLA

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 9412

Analyst: krq **Instrument:** IC01 **Book#** 136N9B

Method: LA533105 Rev/Mod D-1

Worklist Comment: C-106 IC. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	6.15e+01	104.237	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.63e+01	96.582	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.42e02	5.09e+02	93.911	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	6.00e+02	104.348	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	6.31e+02	102.769	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.75e+02	105.311	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.67e+02	105.705	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.08e02	5.35e+02	105.315	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	5.91e+00	5.910	ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	F-02	SOLID	N/A	4.016e+02	52.210	ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	CL-02	SOLID	N/A	1.559e+02	68.280	ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	NO2-02	SOLID	N/A	1.164e+04	429.800	ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	NO3-02	SOLID	N/A	9.887e+02	561.900	ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	PO4-02	SOLID	N/A	9.241e+02	477.500	ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	SO4-02	SOLID	N/A	3.525e+03	545.800	ug/g
4	SAMPLE	S96T003181	W	0	@IC-01	OXALATE2	SOLID	N/A	2.498e+04	421.700	ug/g
5	DUP	S96T003181	W	0	@IC-01	F-02	SOLID	4.02e+02	1.19e+02	108.637	RPD
5	DUP	S96T003181	W	0	@IC-01	CL-02	SOLID	1.56e+02	1.97e+02	23.229	RPD
5	DUP	S96T003181	W	0	@IC-01	NO2-02	SOLID	1.16e+04	1.09e+04	6.222	RPD
5	DUP	S96T003181	W	0	@IC-01	NO3-02	SOLID	9.89e+02	1.94e+03	64.937	RPD
5	DUP	S96T003181	W	0	@IC-01	PO4-02	SOLID	9.24e+02	1.08e+03	15.569	RPD
5	DUP	S96T003181	W	0	@IC-01	SO4-02	SOLID	3.52e+03	3.12e+03	12.048	RPD
5	DUP	S96T003181	W	0	@IC-01	OXALATE2	SOLID	2.50e+04	8.25e+04	106.977	RPD
6	SPK	S96T003181	W	0	@IC-01	F-02	SOLID	5.90e01	5.76e+01	97.627	% Recovery
6	SPK	S96T003181	W	0	@IC-01	CL-02	SOLID	7.90e01	1.18e+02	149.367	% Recovery
6	SPK	S96T003181	W	0	@IC-01	NO2-02	SOLID	5.42e02	5.07e+02	93.542	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 9412

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S96T003181	0	W	@IC-01	NO3-02	SOLID	6.14e02	5.90e+02	96.091	% Recovery
6	SPK	S96T003181	0	W	@IC-01	PO4-02	SOLID	5.46e02	5.32e+02	97.436	% Recovery
6	SPK	S96T003181	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.35e+02	100.634	% Recovery
6	SPK	S96T003181	0	W	@IC-01	OXALATE2	SOLID	5.08e02	5.07e+02	99.803	% Recovery
7	SAMPLE	S96T003180	0	W	@IC-01	F-02	SOLID	N/A	1.124e+02	49.600	ug/g
7	SAMPLE	S96T003180	0	W	@IC-01	CL-02	SOLID	N/A	1.557e+02	64.870	ug/g
7	SAMPLE	S96T003180	0	W	@IC-01	NO2-02	SOLID	N/A	8.225e+03	408.200	ug/g
7	SAMPLE	S96T003180	0	W	@IC-01	NO3-02	SOLID	N/A	2.646e+03	533.800	ug/g
7	SAMPLE	S96T003180	0	W	@IC-01	PO4-02	SOLID	N/A	8.293e+02	453.600	ug/g
7	SAMPLE	S96T003180	0	W	@IC-01	SO4-02	SOLID	N/A	2.533e+03	518.500	ug/g
7	SAMPLE	S96T003180	0	W	@IC-01	OXALATE2	SOLID	N/A	7.815e+04	400.600	ug/g
8	DUP	S96T003180	0	W	@IC-01	F-02	SOLID	1.12e+02	3.44e+02	101.754	RPD
8	DUP	S96T003180	0	W	@IC-01	CL-02	SOLID	1.56e+02	1.53e+02	1.942	RPD
8	DUP	S96T003180	0	W	@IC-01	NO2-02	SOLID	8.22e+03	7.20e+03	13.230	RPD
8	DUP	S96T003180	0	W	@IC-01	NO3-02	SOLID	2.65e+03	2.35e+03	12.000	RPD
8	DUP	S96T003180	0	W	@IC-01	PO4-02	SOLID	8.29e+02	<4.15e2		RPD
8	DUP	S96T003180	0	W	@IC-01	SO4-02	SOLID	2.53e+03	2.28e+03	10.395	RPD
8	DUP	S96T003180	0	W	@IC-01	OXALATE2	SOLID	7.82e+04	2.26e+05	97.173	RPD

Comments Section:

Comments for sample# S96T003181 **and test** @IC-01 .
Organic acid interference with F. hla

Final page for worklist# 9412

Analyst Signature **Date**

Analyst Signature **Date**

H Anastor 6-10-96
Reviewer Signature **Date**
Validated 6.10.96

Units shown for QC (BLK/BKG) may not reflect the actual units.

A-0010-IC DATA FILE/WORKLIST RESOLUTION 10-Jun-96

Worklist#: 9412

		Seq	Type	Sample #
-	=>	1	CCB	
	=>	2	CCV	
	=>	3	BLNK-PREP	
	=>	4	SAMPLE	S96T003181
	=>	5	DUP	S96T003181
	=>	6	SPK	S96T003181
	=>	7	SAMPLE	S96T003180
	=>	8	DUP	S96T003180
+				

Data File: 9412JUN.CSV

	Seq#	Data File	Sample Name	Dilution
-	1	kq060641.d07	CCB	1.00
	2	kq060641.d09	CCV 136N9-B	101.00
	3	96060641.d07	BLANK PREP	1.00
	7	96060641.d08	S96T003180 SAMPL	11.00
	8	96060641.d09	S96T003180 DUP	11.00
	4	96060641.d10	S96T003181 SAMPL	11.00
	5	96060641.d11	S96T003181 DUP	11.00
	6	96060641.d12	S96T003181 SPIKE	11.00
		kq060641.d11	S96T003180 SAMPL	41.00
		kq060641.d12	S96T003181 SAMPL	41.00
+				

W Save(F4) Abort(Shift-F3) ListFiles(Shift-F1) UploadFile(F8)

Data Reprocessed On 06/10/1996 10:06:39

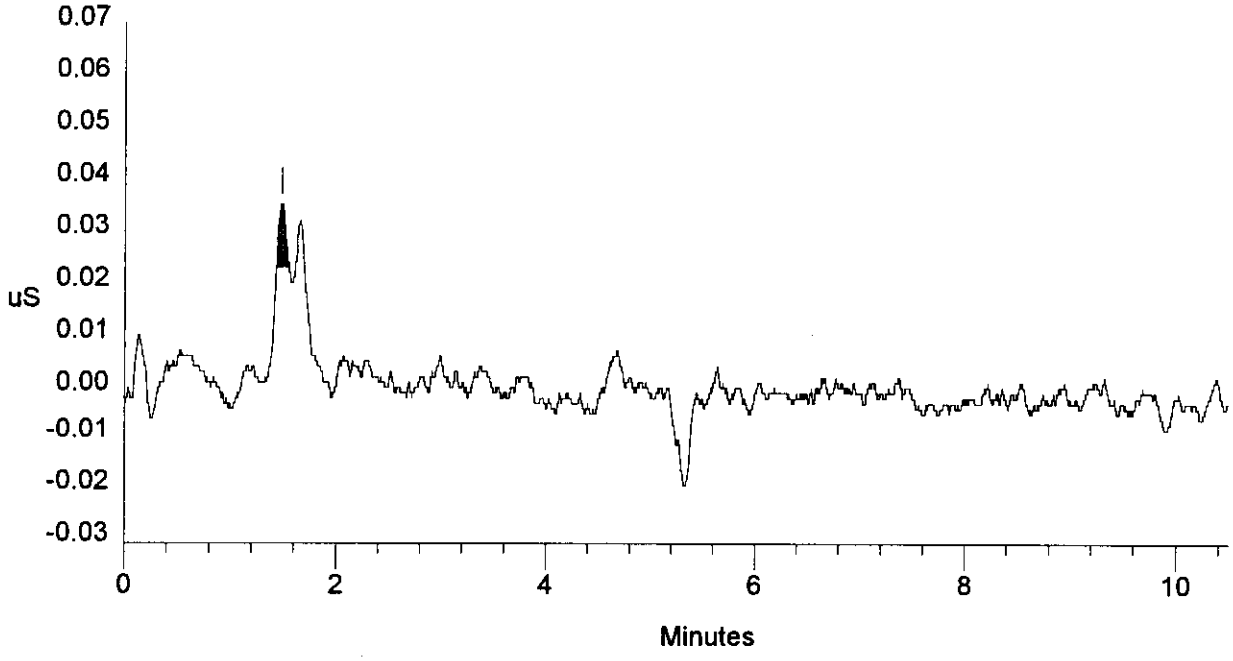
Sample Name: CCB	Date: 06/07/1996 00:51:54
Data File : C:\DX\DATA\kq060641.d07	
Method : C:\DX\METHOD\AUTOMEL.met	WHC-SD-WM-DP-183, REV. 0
ACI Address: 1 System: 1 Inject#: 7	Detector:CDM-1
Analyst : JMLuy for RRQ 6/11/96	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

File: kq060641.d07 Sample: CCB



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 665 TO 672.

Data Reprocessed On 06/10/1996 10:06:45

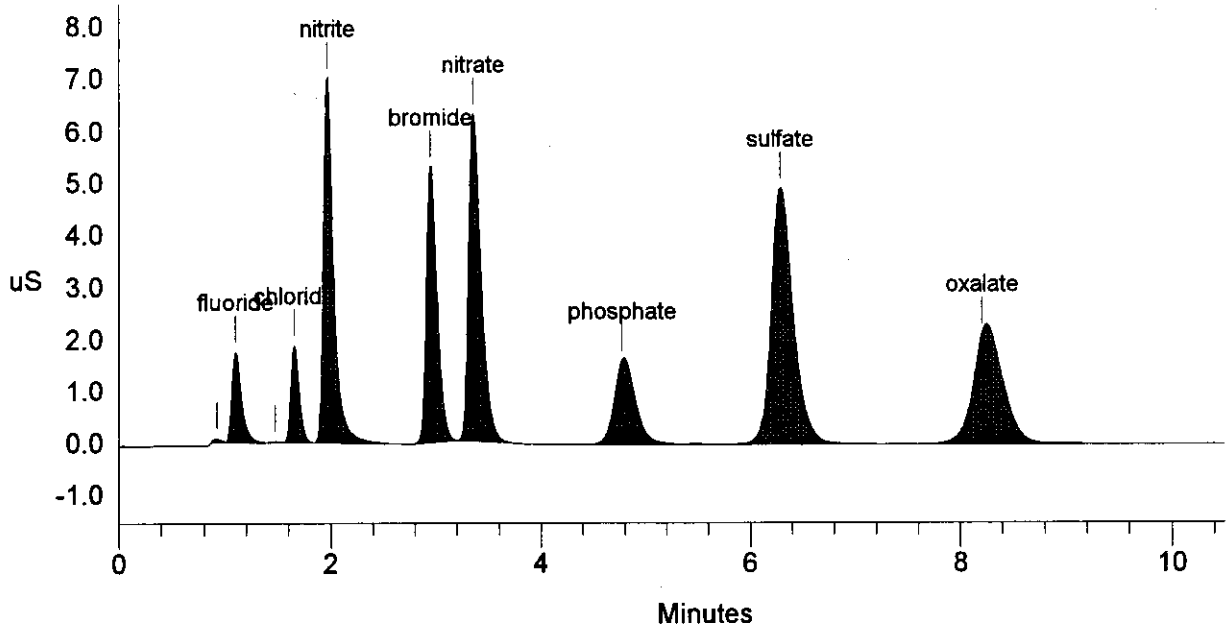
Sample Name: CCV 136N9-B	Date: 06/07/1996 01:18:19
Data File : C:\DX\DATA\kq060641.d09	WHC-SD-WM-DP-183, REV. 0
Method : C:\DX\METHOD\AUTOMEL.met	
ACI Address: 1 System: 1 Inject#: 9	Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.92		0.000	72	364	2	
2	1.10	fluoride	61.465	1747	11028	2	2.80
3	1.47		0.000	21	109	1	
4	1.65	chloride	76.254	1873	10169	1	0.00
5	1.97	nitrite	508.677	7007	47205	1	-2.32
6	2.95	bromide	599.910	5307	37507	1	-0.45
7	3.35	nitrate	631.146	6294	51730	1	1.21
8	4.77	phosphate	575.388	1626	23509	1	-3.24
9	6.29	sulfate	667.470	4929	71520	1	-3.28
10	8.21	oxalate	535.411	2135	44841	1	-3.75
		Totals	3655.719	31013	297981		

File: kq060641.d09 Sample: CCV 136N9-B



Data Reprocessed On 06/10/1996 10:06:49

Sample Name: BLANK PREP Date: 06/07/1996 03:42:51
Data File : C:\DX\DATA\96060641.d07
Method : C:\DX\METHOD\AUTOMEL.met
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

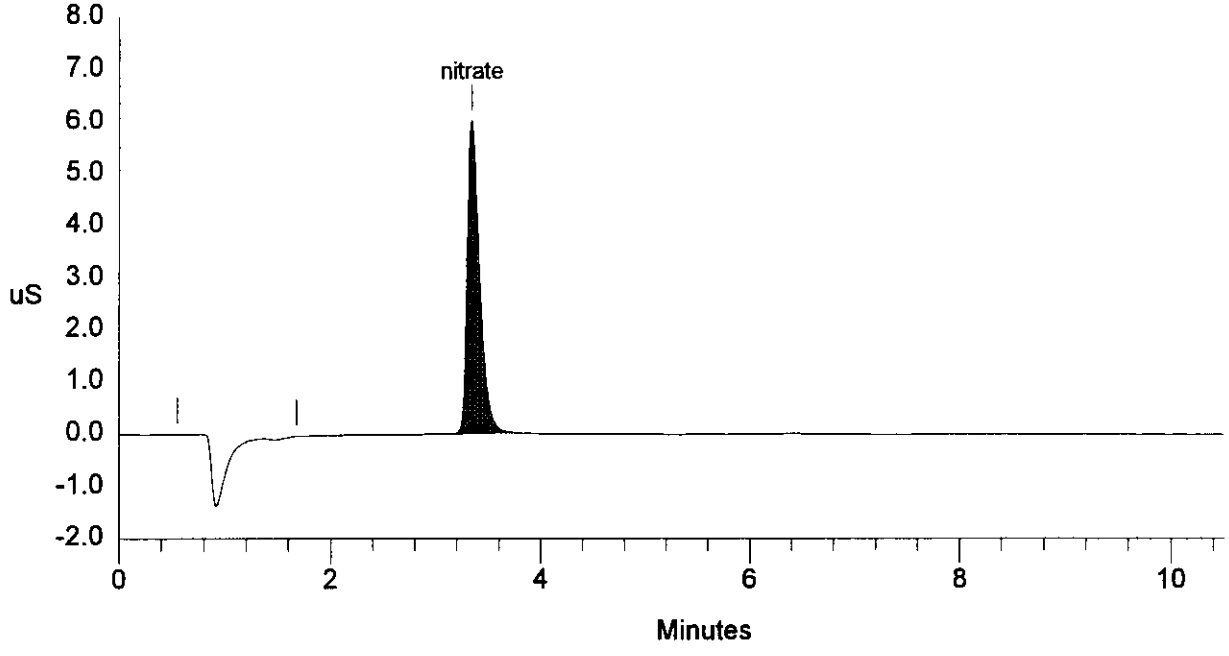
WHC-SD-WM-DP-183, REV. 0

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.55		0.000	10	205	1	
3	3.34	nitrate	5.910	6012	48823	1	0.80
		Totals	5.910	6022	49028		

File: 96060641.d07 Sample: BLANK PREP



Data Reprocessed On 06/10/1996 10:07:01

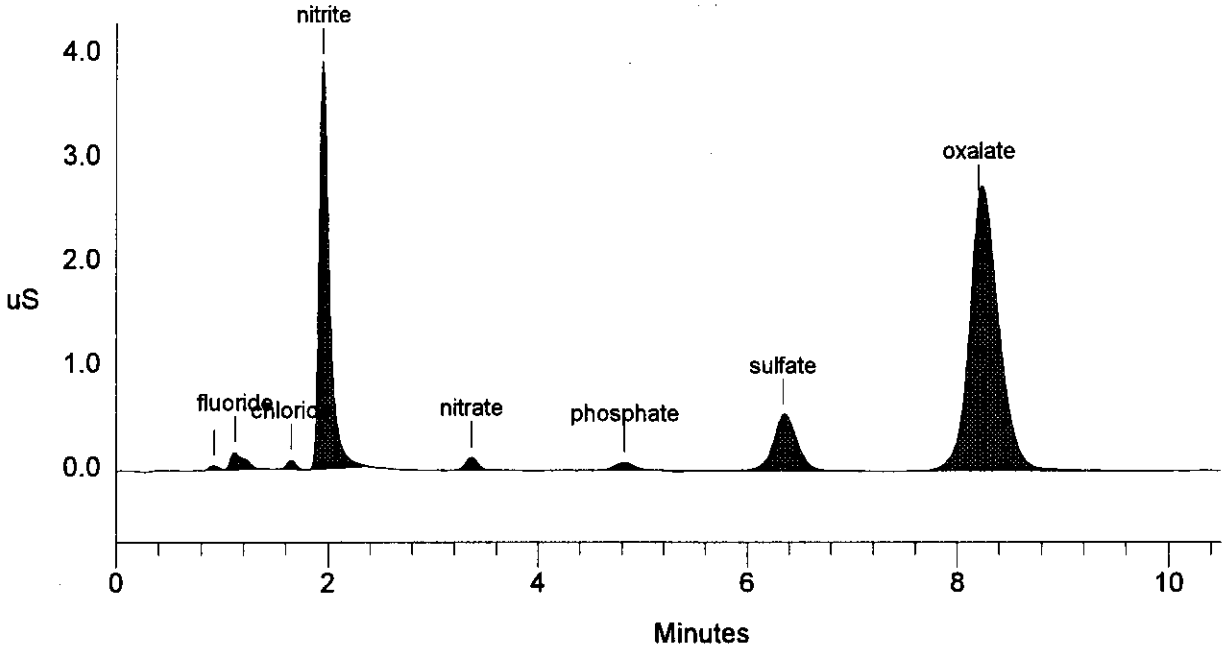
Sample Name: S96T003181 SAMPLE Date: 06/07/1996 04:22:26
Data File : C:\DX\DATA\96060641.d10
Method : C:\DX\METHOD\AUTOMEL.met
WHC-SD-WM-DP-183, REV. 0
ACI Address: 1 System: 1 Inject#: 10 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.92		0.000	43	253	1	
2	1.12	fluoride	1.100	166	1523	1	4.67
3	1.65	chloride	0.427	91	514	1	0.00
4	1.95	nitrite	31.881	3890	26651	1	-2.98
5	3.37	nitrate	2.708	121	970	1	1.61
6	4.83	phosphate	2.531	73	816	1	-2.16
7	6.35	sulfate	9.656	541	8762	1	-2.46
8	8.21	oxalate	68.418	2606	52770	1	-3.75
		Totals	116.720	7532	92260		

File: 96060641.d10 Sample: S96T003181 SAMPLE



Data Reprocessed On 06/10/1996 10:07:05

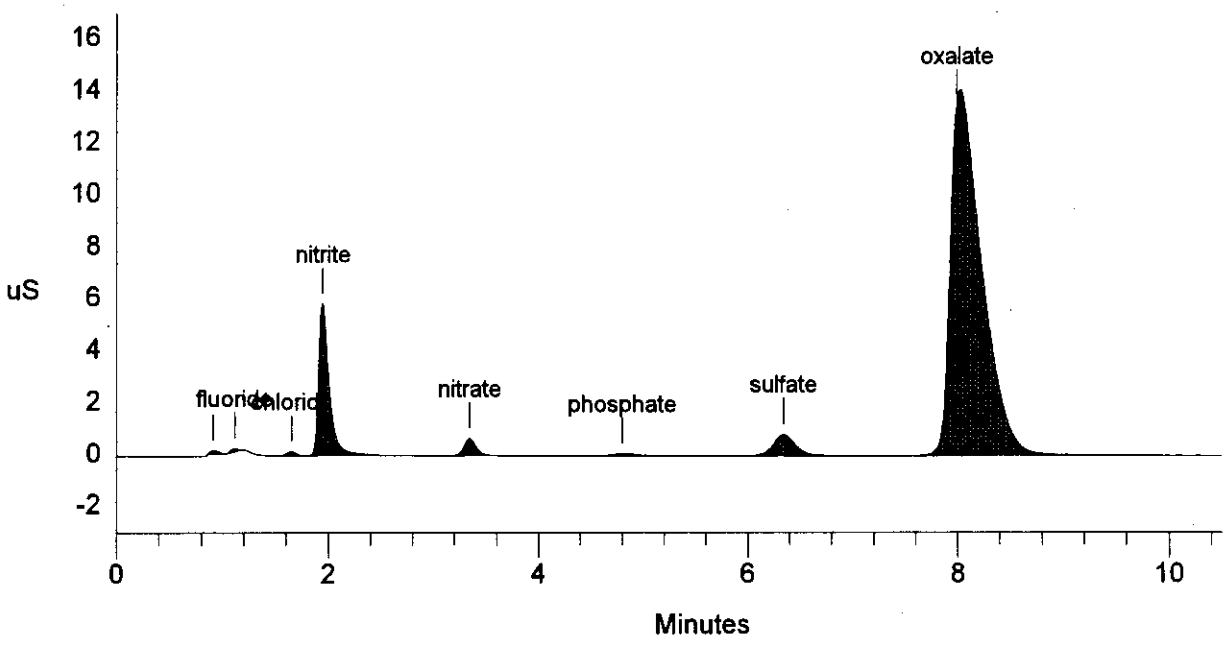
Sample Name: S96T003181 DUP	Date: 06/07/1996 04:35:38
Data File : C:\DX\DATA\96060641.d11	WHC-SD-WM-DP-183, REV. 0
Method : C:\DX\METHOD\AUTOMEL.met	
ACI Address: 1 System: 1 Inject#: 11	Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	11	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	139	751	1	
2	1.11	fluoride	0.513	128	544	1	4.05
3	1.65	chloride	0.850	174	1026	1	0.00
4	1.95	nitrite	47.028	5822	39866	1	-3.31
5	3.34	nitrate	8.363	657	5258	1	0.80
6	4.80	phosphate	4.665	95	1607	1	-2.70
7	6.35	sulfate	13.446	826	12474	1	-2.46
8	8.00	oxalate	355.855	13473	289521	1	-6.25
		Totals	430.719	21313	351047		

File: 96060641.d11 Sample: S96T003181 DUP



Data Reprocessed On 06/10/1996 10:07:09

Sample Name: S96T003181 SPIKE Date: 06/07/1996 04:48:51
Data File : C:\DX\DATA\96060641.d12
Method : C:\DX\METHOD\AUTOMEL.met
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

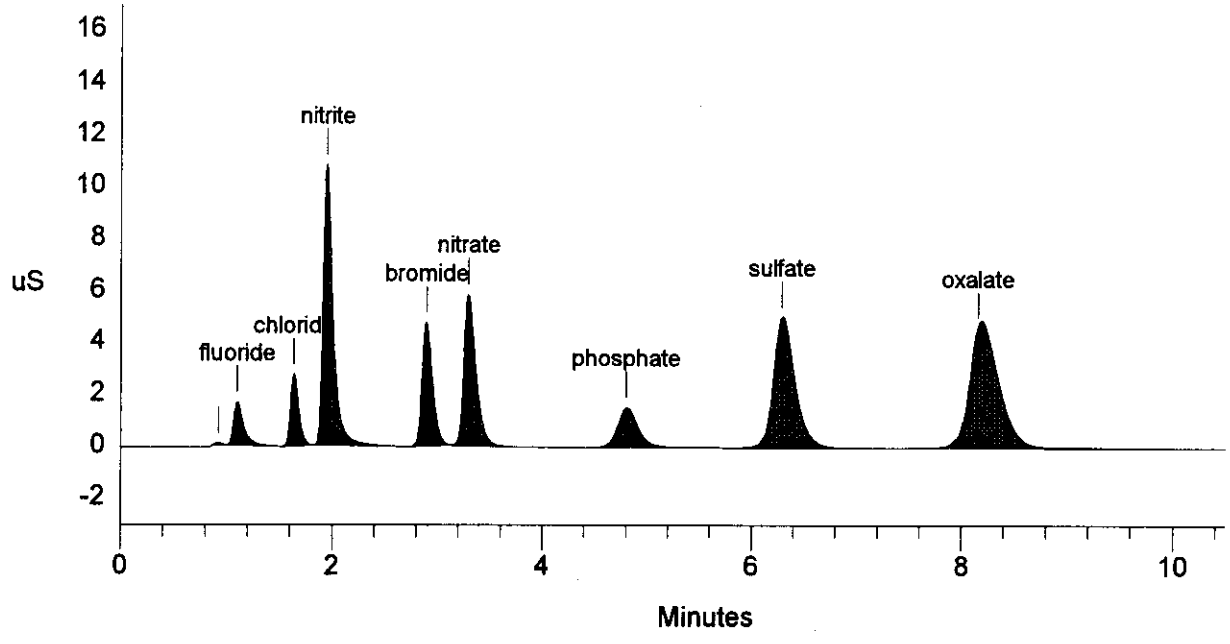
WHC-SD-WM-DP-183, REV. 0

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.92		0.000	95	484	2	
2	1.10	fluoride	6.858	1682	11311	2	2.80
3	1.63	chloride	12.179	2744	15011	1	-1.21
4	1.95	nitrite	82.534	10804	71158	1	-3.31
5	2.89	bromide	57.377	4772	32784	1	-2.25
6	3.29	nitrate	61.695	5833	46241	1	-0.60
7	4.80	phosphate	55.705	1523	20838	1	-2.70
8	6.29	sulfate	73.174	5031	72006	1	-3.28
9	8.16	oxalate	119.129	4620	92935	1	-4.37
		Totals	468.651	37104	362767		

File: 96060641.d12 Sample: S96T003181 SPIKE



Data Reprocessed On 06/10/1996 10:06:53

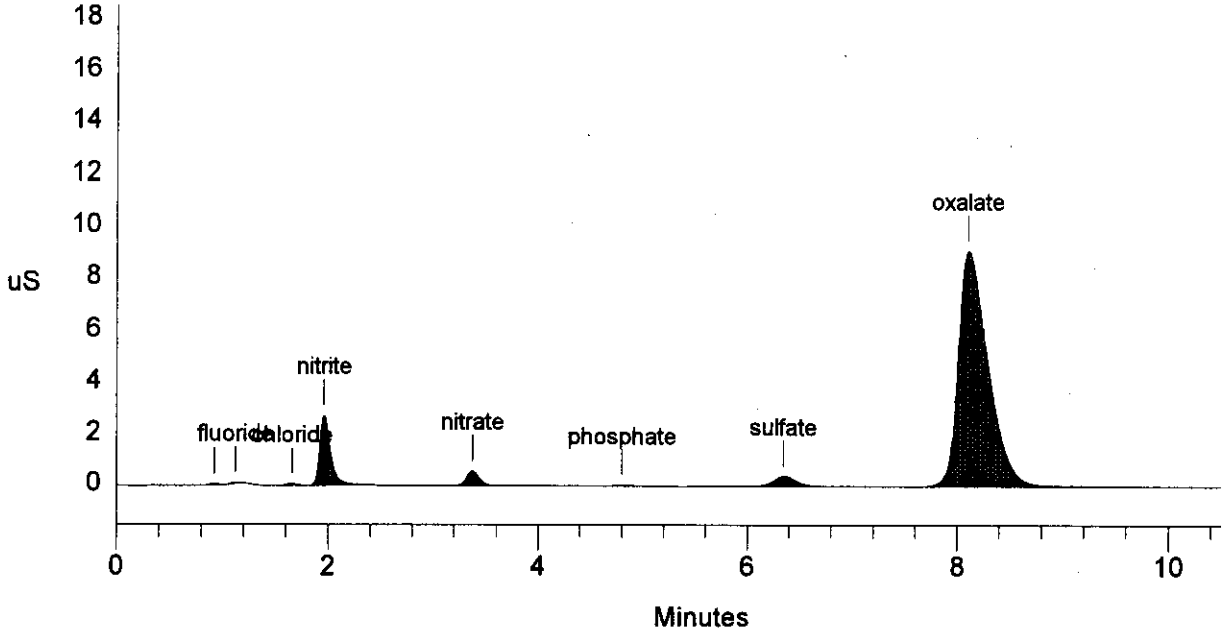
Sample Name: S96T003180 SAMPLE	Date: 06/07/1996 03:56:03
Data File : C:\DX\DATA\96060641.d08	
Method : C:\DX\METHOD\AUTOMEL.met	**WHC-SD-WM-DP-183, REV. 0**
ACI Address: 1 System: 1 Inject#: 8	Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.92		0.000	59	330	1	
2	1.12	fluoride	0.324	57	231	1	4.67
3	1.66	chloride	0.449	94	541	1	0.40
4	1.96	nitrite	23.714	2728	19558	1	-2.65
5	3.37	nitrate	7.629	585	4700	1	1.81
6	4.80	phosphate	2.391	40	764	1	-2.70
7	6.35	sulfate	7.304	416	6463	1	-2.46
8	8.11	oxalate	225.310	9103	179163	1	-5.00
		Totals	267.122	13083	211751		

File: 96060641.d08 Sample: S96T003180 SAMPLE



Data Reprocessed On 06/10/1996 10:06:57

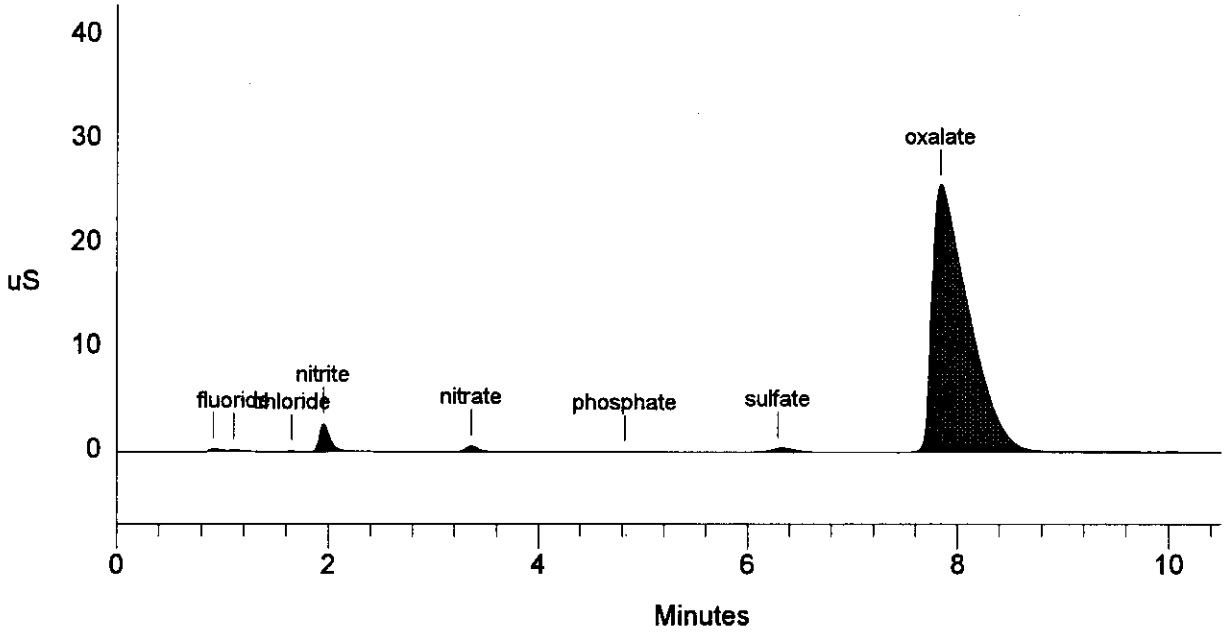
Sample Name: S96T003180 DUP
Date: 06/07/1996 04:09:14
Data File : C:\DX\DATA\96060641.d09
Method : C:\DX\METHOD\AUTOMEL.met
WHC-SD-WM-DP-183, REV. 0
ACI Address: 1 System: 1 Inject#: 9
Detector:CDM-1
Analyst :
Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	11	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	198	1268	2	
2	1.11	fluoride	1.084	137	1496	2	3.43
3	1.65	chloride	0.481	96	580	1	0.00
4	1.95	nitrite	22.678	2657	18660	1	-2.98
5	3.36	nitrate	7.400	563	4527	1	1.41
6	4.83	phosphate	0.909	21	216	1	-2.16
7	6.29	sulfate	7.175	365	6337	1	-3.28
8	7.84	oxalate	711.190	25567	620340	1	-8.12
		Totals	750.917	29604	653424		

File: 96060641.d09 Sample: S96T003180 DUP



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 96031701.D11 → 12
15 → 17

LABCORE Data Entry Template for Worklist# 6323

Analyst: WGB **Instrument:** IC00 IC01 **Book#** 133N9-A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 @IC-01. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	SAMPLE	S96T001023	0		@IC-01	LIQUID	96000174	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T001023	0		@IC-01	LIQUID		
5	SPK	S96T001023	0		@IC-01	LIQUID		

Final page for worklist # 6323

Warren Bushardt 3/18/96
Analyst Signature **Date**

~~In Shell 3/18/96~~ MDS
Expected 3/19/96
In Shell
~~Uploaded~~ MDS 4/2/96

use 6323fix.csv

Uploaded 4/2/96 James M. Fye
Reject Cl + put out for review.

Analyst Signature **Date**

Chloride data from this worklist is not used. all other analytes are reported. Ruth Ard 8/2/96

RCE 8/2/96
DATA NOT USED IN PACKAGE
stamped in error

Data Entry Comments:

I ran the STD 10 times before this one - the Cloride is still a little under the Low range. I Don't Know whats going on. WGB

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 6323

Analyst: wgb **Instrument:** IC01 **Book#** 1331/9A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 @IC-01. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	4.44e-01	0.444	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	59	5.41e+01	91.695	% Recovery
2	CCV			0	@IC-QC	CL	QC	79	6.76e+01	85.570	% Recovery
2	CCV			0	@IC-QC	NO2	QC	537	4.95e+02	92.179	% Recovery
2	CCV			0	@IC-QC	BR	QC	575	5.19e+02	90.261	% Recovery
2	CCV			0	@IC-QC	NO3	QC	614	5.72e+02	93.160	% Recovery
2	CCV			0	@IC-QC	PO4	QC	546	4.90e+02	89.744	% Recovery
2	CCV			0	@IC-QC	SO4	QC	631	5.81e+02	92.076	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	509	4.95e+02	97.250	% Recovery
3	SAMPLE	S96T001023		0	@IC-01	F-02	LIQUID	N/A	1.828e+02	14.440	ug/mL
3	REJECT	S96T001023		0	@IC-01	CL-02	LIQUID	N/A	2.651e+02		ug/mL
3	SAMPLE	S96T001023		0	@IC-01	NO2-02	LIQUID	N/A	2.418e+04	118.900	ug/mL
3	SAMPLE	S96T001023		0	@IC-01	NO3-02	LIQUID	N/A	1.106e+03	155.500	ug/mL
3	SAMPLE	S96T001023		0	@IC-01	PO4-02	LIQUID	N/A	8.630e+02	132.100	ug/mL
3	SAMPLE	S96T001023		0	@IC-01	SO4-02	LIQUID	N/A	6.540e+03	151.000	ug/mL
3	SAMPLE	S96T001023		0	@IC-01	OXALATE2	LIQUID	N/A	2.980e+03	116.700	ug/mL
4	DUP	S96T001023		0	@IC-01	F-02	LIQUID	1.83e+02	1.84e+02	0.545	RPD
4	DUP	S96T001023		0	@IC-01	CL-02	LIQUID	2.65e+02	2.48e+02	6.628	RPD
4	DUP	S96T001023		0	@IC-01	NO2-02	LIQUID	2.42e+04	2.40e+04	0.830	RPD
4	DUP	S96T001023		0	@IC-01	NO3-02	LIQUID	1.11e+03	1.12e+03	0.897	RPD
4	DUP	S96T001023		0	@IC-01	PO4-02	LIQUID	8.63e+02	8.45e+02	2.108	RPD
4	DUP	S96T001023		0	@IC-01	SO4-02	LIQUID	6.54e+03	6.53e+03	0.153	RPD
4	DUP	S96T001023		0	@IC-01	OXALATE2	LIQUID	2.98e+03	2.98e+03	0.000	RPD
5	SPK	S96T001023		0	@IC-01	F-02	LIQUID	59	6.20e+01	105.085	% Recovery
5	SPK	S96T001023		0	@IC-01	CL-02	LIQUID	79	6.93e+01	87.722	% Recovery
5	SPK	S96T001023		0	@IC-01	NO2-02	LIQUID	537	5.42e+02	100.931	% Recovery
5	SPK	S96T001023		0	@IC-01	NO3-02	LIQUID	614	5.42e+02	88.274	% Recovery
5	SPK	S96T001023		0	@IC-01	PO4-02	LIQUID	546	4.46e+02	81.685	% Recovery
5	SPK	S96T001023		0	@IC-01	SO4-02	LIQUID	631	5.87e+02	93.027	% Recovery
5	SPK	S96T001023		0	@IC-01	OXALATE2	LIQUID	509	4.95e+02	97.250	% Recovery

Comments Section:

~~DATA NOT USED IN PACKAGE~~ RJC 8/2/96 attempted in error

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6323

Seq Type	Sample# R A	Test	Matrix	Actual	Found	DL or Yield	Unit

Comments for sample# S96T001023 **and test** @IC-01 .

Cl std failed rerun necessary.jmf
Cl std failed rerun necessary.jmf
Cl std failed rerun necessary.jmf
Cl std failed rerun necessary.jmf
Cl std failed rerun necessary.jmf
Cl std failed rerun necessary.jmf

Final page for worklist# 6323

Analyst Signature **Date**

Analyst Signature **Date**

Jana Fuge 4/22/96
Reviewer Signature **Date**

Reuploaded to correct program problem.
JMF

DATA NOT USED IN PACKAGE
Stamped in error
RLE 8/2/96

Units shown for QC (BLK/BKG) may not reflect the actual units.

Data Reprocessed On 04/02/1996 12:36:29

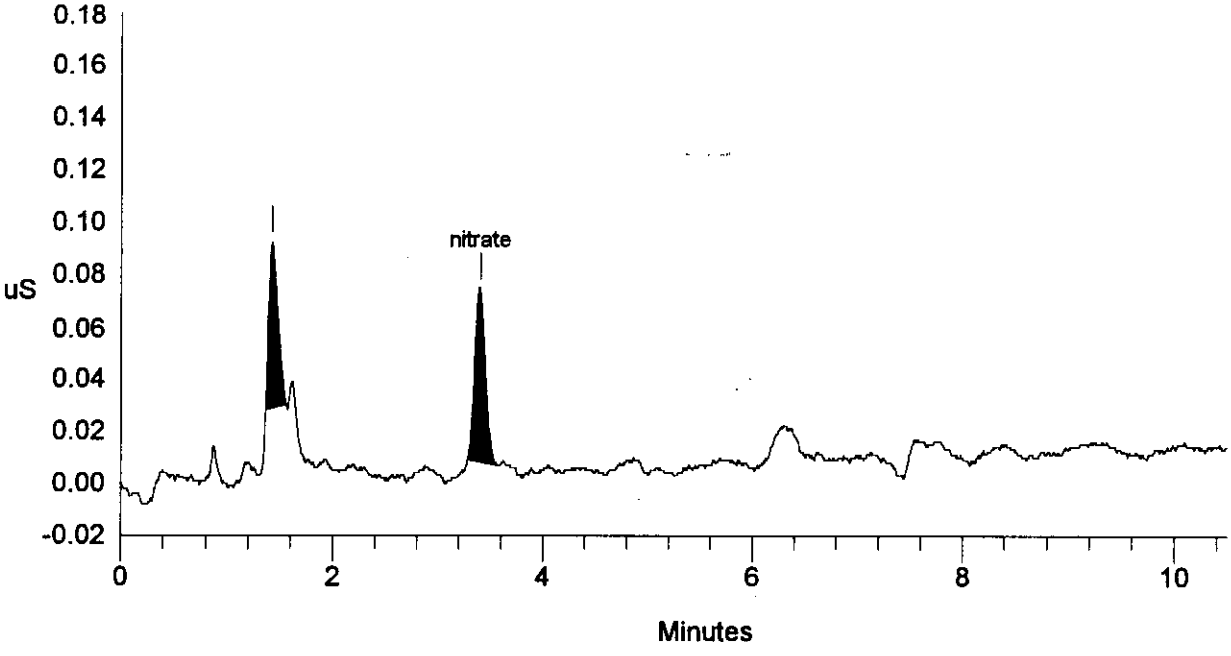
Sample Name: INST. BLANK Date: 03/18/1996 01:05:01
Data File : C:\DX\DATA\96031701.d11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.43		0.000	63	375	1	
2	3.40	nitrate	0.444	66	461	1	0.89
		Totals	0.444	129	836		

File: 96031701.d11 Sample: INST. BLANK



SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 677 TO 681.

DATA NOT USED IN PACKAGE stamped in error
RAE 8/2/96

Data Reprocessed On 04/02/1996 12:36:33

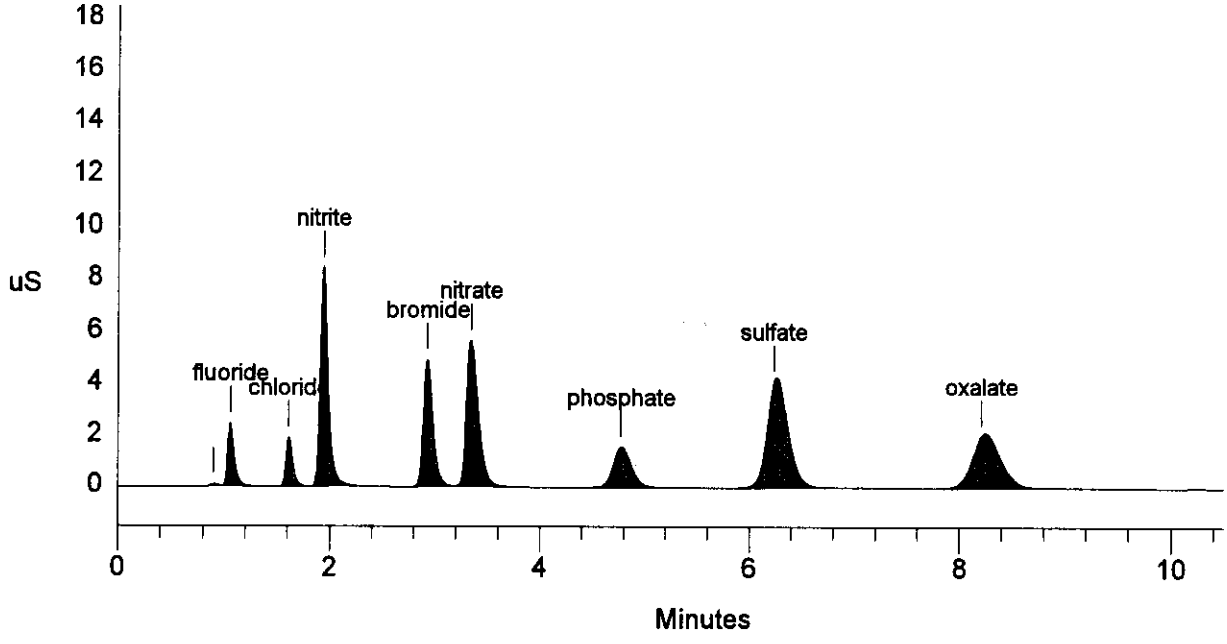
Sample Name: 133N9-A STANDARD	Date: 03/18/1996 01:22:59
Data File : C:\DX\DATA\96031701.d12	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 12	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	79	361	2	
2	1.06	fluoride	54.057	2467	10806	2	3.92
3	1.61	chloride	67.621	1935	8732	1	0.83
4	1.94	nitrite	494.538	8452	44729	1	-0.51
5	2.93	bromide	518.645	4913	31220	1	-0.11
6	3.34	nitrate	571.757	5647	44298	1	-0.89
7	4.77	phosphate	490.070	1597	19754	1	0.49
8	6.24	sulfate	580.562	4099	59133	1	-0.79
9	8.21	oxalate	495.155	2025	39823	1	0.00
		Totals	3272.404	31214	258856		

File: 96031701.d12 Sample: 133N9-A STANDARD



DATA NOT USED IN PACKAGE

RAC 8/2/96 stamped in error

Data Reprocessed On 04/02/1996 12:36:38

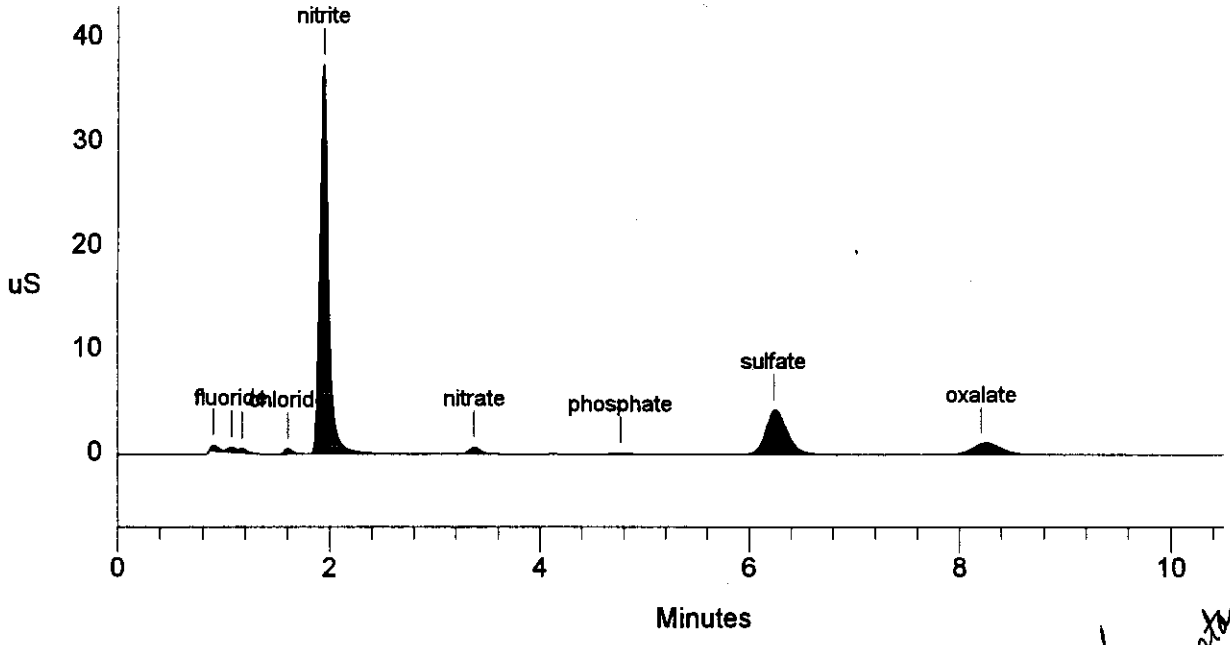
Sample Name: S96T001023 SAMPLE	Date: 03/18/1996 02:29:51
Data File : C:\DX\DATA\96031701.d15	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 15	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1111	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	567	2820	2	
2	1.07	fluoride	182.793	493	2705	2	5.23
3	1.17		0.000	438	2138	2	
4	1.61	chloride	265.109	561	2969	1	0.42
5	1.95	nitrite	24177.239	37418	214860	1	-0.17
6	3.37	nitrate	1105.955	662	5040	1	0.10
7	4.77	phosphate	862.985	113	1427	1	0.49
8	6.24	sulfate	6540.153	4249	60672	1	-0.79
9	8.21	oxalate	2980.293	1050	21265	1	0.00
		Totals	36114.527	45549	313896		

File: 96031701.d15 Sample: S96T001023 SAMPLE



DATA NOT USED IN PACKAGE stamped in error
KPE 8/2/96

Data Reprocessed On 04/02/1996 12:36:42

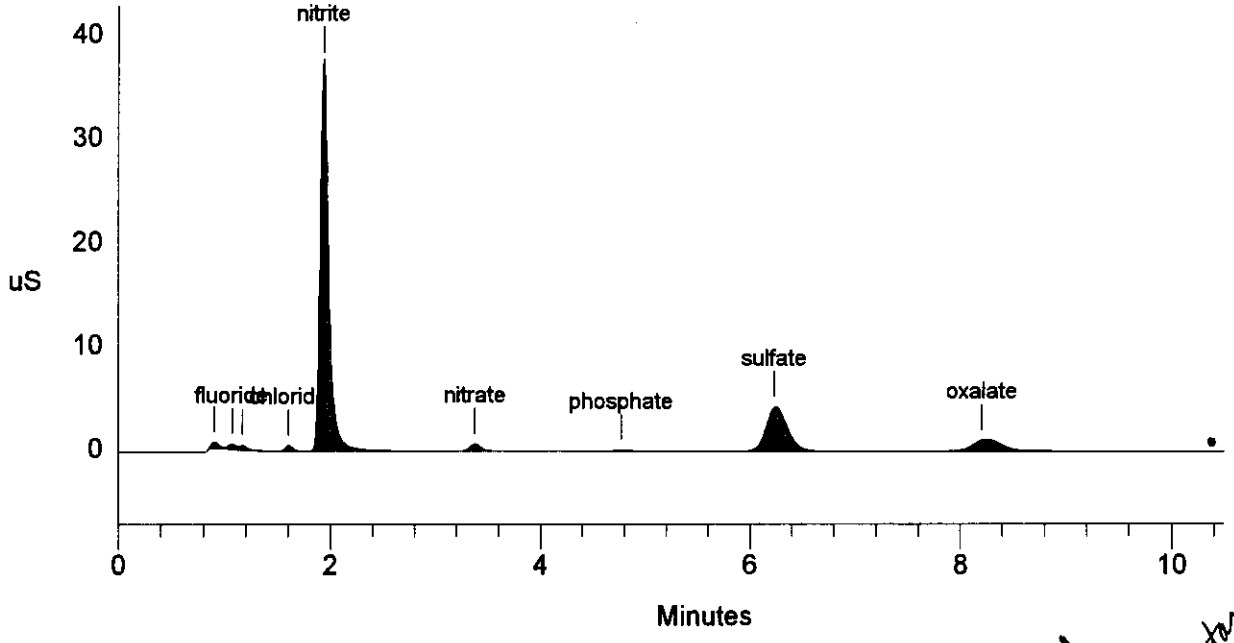
Sample Name: S96T001023 DUP. Date: 03/18/1996 02:52:37
Data File : C:\DX\DATA\96031701.d16
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 16 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1111	3150	5Hz	0.00	10.50		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	601	3072	2	
2	1.07	fluoride	184.346	500	2735	2	5.23
3	1.17		0.000	438	2094	2	
4	1.61	chloride	247.865	567	2763	1	0.42
5	1.94	nitrite	23994.123	37431	213170	1	-0.51
6	3.37	nitrate	1117.335	686	5125	1	0.10
7	4.77	phosphate	845.346	110	1356	1	0.49
8	6.24	sulfate	6530.731	4252	60578	1	-0.79
9	8.21	oxalate	2984.724	1059	21298	1	0.00
		Totals	35904.471	45644	312192		

File: 96031701.d16 Sample: S96T001023 DUP.



DATA NOT USED IN PACKAGE stamped in error
RAC 8/2/96

Data Reprocessed On 04/02/1996 12:36:46

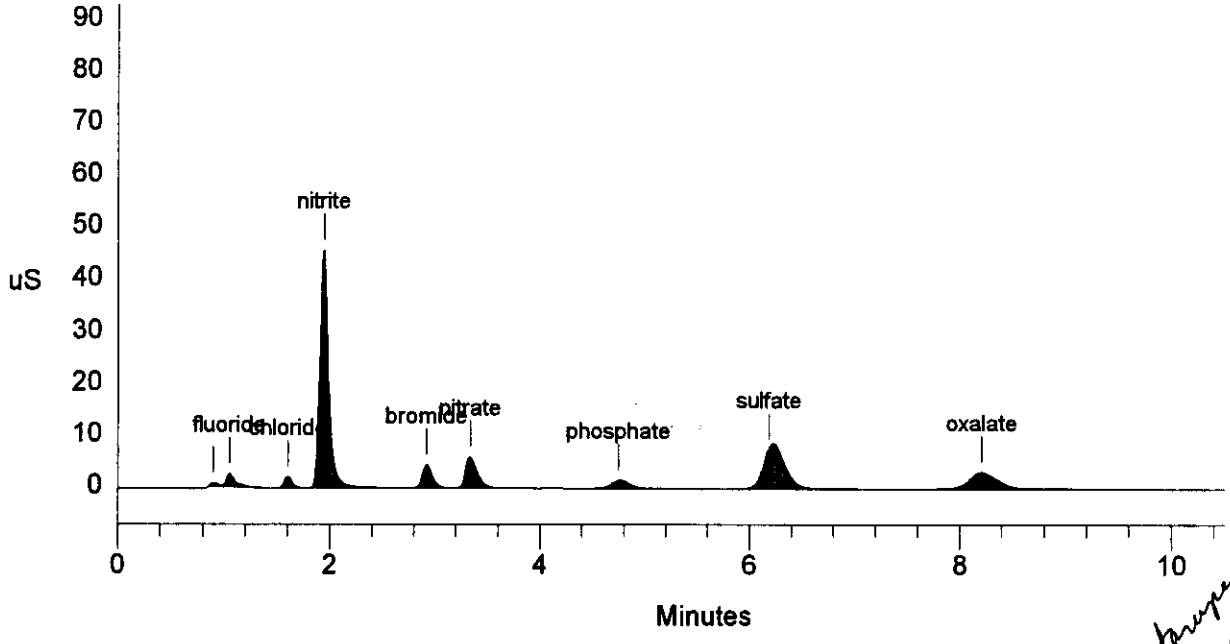
Sample Name: S96T001023 SPIKE	Date: 03/18/1996 03:08:52
Data File : C:\DX\DATA\96031701.d17	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 17	Detector:CDM-1
Analyst :	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1111	3150	5Hz	0.00	10.50	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	628	2960	2	
2	1.05	fluoride	809.303	2513	15084	2	3.27
3	1.61	chloride	965.590	2202	11436	1	0.42
4	1.95	nitrite	29656.307	45621	265675	1	-0.17
5	2.92	bromide	5402.123	4443	29428	1	0.00
6	3.33	nitrate	6581.453	5965	46539	1	-1.09
7	4.75	phosphate	5363.318	1528	19642	1	-0.07
8	6.19	sulfate	12471.921	7440	120884	1	-1.64
9	8.21	oxalate	7981.884	3155	59067	1	0.00
		Totals	69231.899	73496	570715		

File: 96031701.d17 Sample: S96T001023 SPIKE



DATA NOT USED IN PACKAGE

stamped in error

FOE 8/2/96

THE FOLLOWING ANALYSES WERE RERUN AND INCLUDED IN THE DATA PACKAGE, BUT THE RESULTS HAVE NOT BEEN REPORTED IN THE FINAL SUMMARY REPORTS.

LABCORE Completed Worklist Report for Worklist# 8914

Analyst: eal **Instrument:** IC01 **Book#** 136N9A

Method: LA533105 Rev/Mod D-1

Worklist Comment: C-106 IC. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1		<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1		<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1		<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1		<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1		1.63e-01	0.163	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1		<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1		<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01		5.94e+01	100.678	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01		7.30e+01	92.405	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.48e02		5.12e+02	93.431	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02		5.52e+02	96.000	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02		5.74e+02	93.485	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02		5.20e+02	95.238	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02		6.07e+02	96.197	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.15e02		5.06e+02	98.252	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1		<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1		<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1		<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1		<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1		<1.40e-1		ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1		<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1		<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	F-02	SOLID	N/A		1.978e+04	10890.000	ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	CL-02	SOLID	N/A		2.893e+05	14240.000	ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	NO2-02	SOLID	N/A	<	8.964e+04	89650.000	ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	NO3-02	SOLID	N/A		2.898e+07	117200.000	ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	PO4-02	SOLID	N/A	<	9.961e+04	99590.000	ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	SO4-02	SOLID	N/A		1.380e+05	113800.000	ug/g
5	DUP	S96T001543	W	0	@IC-01	F-02	SOLID	1.98e+04		<1.09e4		RPD
5	DUP	S96T001543	W	0	@IC-01	CL-02	SOLID	2.89e+05		<1.42e4		RPD
5	DUP	S96T001543	W	0	@IC-01	NO2-02	SOLID	<8.96e4		<8.96e4		RPD
5	DUP	S96T001543	W	0	@IC-01	NO3-02	SOLID	2.90e+07		2.76e+07	4.947	RPD
5	DUP	S96T001543	W	0	@IC-01	PO4-02	SOLID	<9.96e4		<9.96e4		RPD
5	DUP	S96T001543	W	0	@IC-01	SO4-02	SOLID	1.38e+05		<1.14e5		RPD
5	DUP	S96T001543	W	0	@IC-01	OXALATE2	SOLID	<8.80e4		<8.79e4		RPD
6	SPK	S96T001543	W	0	@IC-01	F-02	SOLID	5.90e01		5.27e+01	89.322	% Recovery
6	SPK	S96T001543	W	0	@IC-01	CL-02	SOLID	7.90e01		7.85e+01	99.367	% Recovery
6	SPK	S96T001543	W	0	@IC-01	NO2-02	SOLID	5.48e02		5.19e+02	94.708	% Recovery
6	SPK	S96T001543	W	0	@IC-01	NO3-02	SOLID	6.14e02		5.45e+02	88.762	% Recovery

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8914

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S96T001543	0	W	@IC-01	PO4-02	SOLID	5.46e02	5.36e+02	98.168	% Recovery
6	SPK	S96T001543	0	W	@IC-01	SO4-02	SOLID	6.31e02	6.05e+02	95.880	% Recovery
6	SPK	S96T001543	0	W	@IC-01	OXALATE2	SOLID	5.15e02	5.11e+02	99.223	% Recovery

Final page for worklist# 8914

Analyst Signature Date

Analyst Signature Date

H Anastos 5.21.96
Reviewer Signature Date

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 8914

Analyst: EAL **Instrument:** IC00 _____ **Book#** 136N9-A

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
	Prep Blank							
3	SAMPLE	S96T001543	0	W	@IC-01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T001543	0	W	@IC-01	SOLID		
5	SPK	S96T001543	0	W	@IC-01	SOLID		

Final page for worklist # 8914

A. Lamb 05.19.96
Analyst Signature **Date**

Analyst Signature **Date**

Exported 8914 may.csv
Inshell 5/20/96 JMF
Uploaded 5/20/96 JM Fuge
Oxalate rejected - will be rerun on WKL 8991. JMF
Validated 5/20/96 JM Fuge

Data Entry Comments: Prep Blank is included - though not requested. ar
Rerun oxalate 1543

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

DATA NOT USED IN PACKAGE

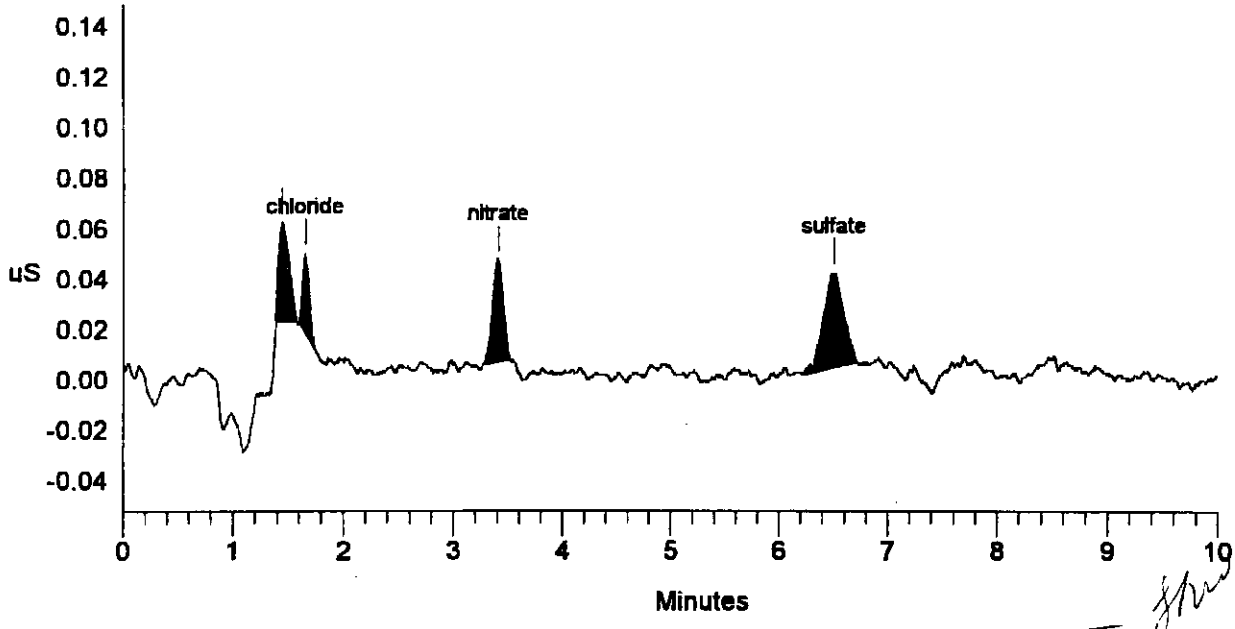
Sample Name: INST. BLANK Date: 05/19/1996 10:08:01
Data File : C:\DX\DATA\96051901.D13
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 13 Detector: CDM-1
Analyst : A. Lankel Column: AG4A/AS4A anion column
05-19-96

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.44		0.000	39	254	1	
2	1.65	chloride	0.010	31	129	1	0.00
3	3.41	nitrate	0.163	40	278	1	3.02
4	6.51	sulfate	0.107	37	490	1	0.00
		Totals	0.280	147	1150		

File: 96051901.D13 Sample: INST. BLANK **WHC-SD-WM-DP-183, REV. C**



7/18/

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____TO ____.

DATA NOT USED IN PACKAGE

Sample Name: 136N9-A STD. Date: 05/19/1996 11:50:03
Data File : C:\DX\DATA\96051901.D03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : A. Lambel Column: AG4A/AS4A anion column

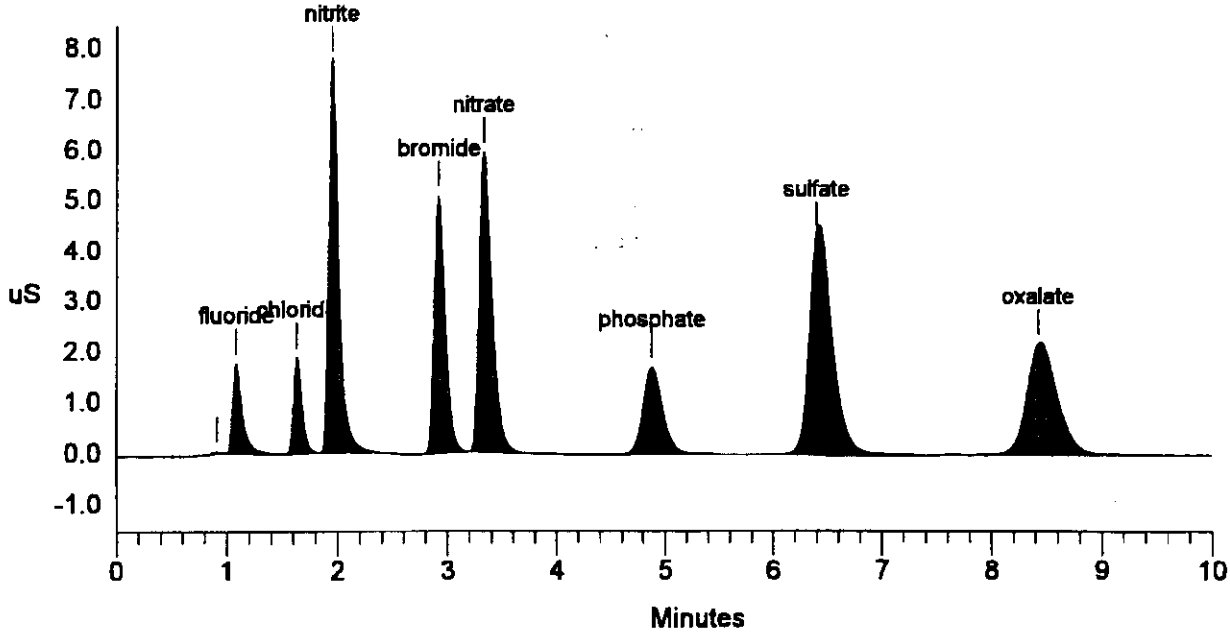
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	41	195	2	
2	1.09	fluoride	59.382	1773	10636	2	1.88
3	1.63	chloride	73.008	1885	9731	1	-1.21
4	1.95	nitrite	512.266	7729	47548	1	-2.98
5	2.92	bromide	551.971	5083	34406	1	-1.35
6	3.33	nitrate	574.227	5927	46898	1	0.60
7	4.88	phosphate	520.217	1711	21202	1	-1.08
8	6.40	sulfate	607.327	4302	64894	1	-1.64
9	8.43	oxalate	506.226	2180	42352	1	-1.25
		Totals	3404.625	30633	277863		

WHC-SD-WM-DP-183, REV. 0

File: 96051901.D03 Sample: 136N9-A STD.



DATA NOT USED IN PACKAGE

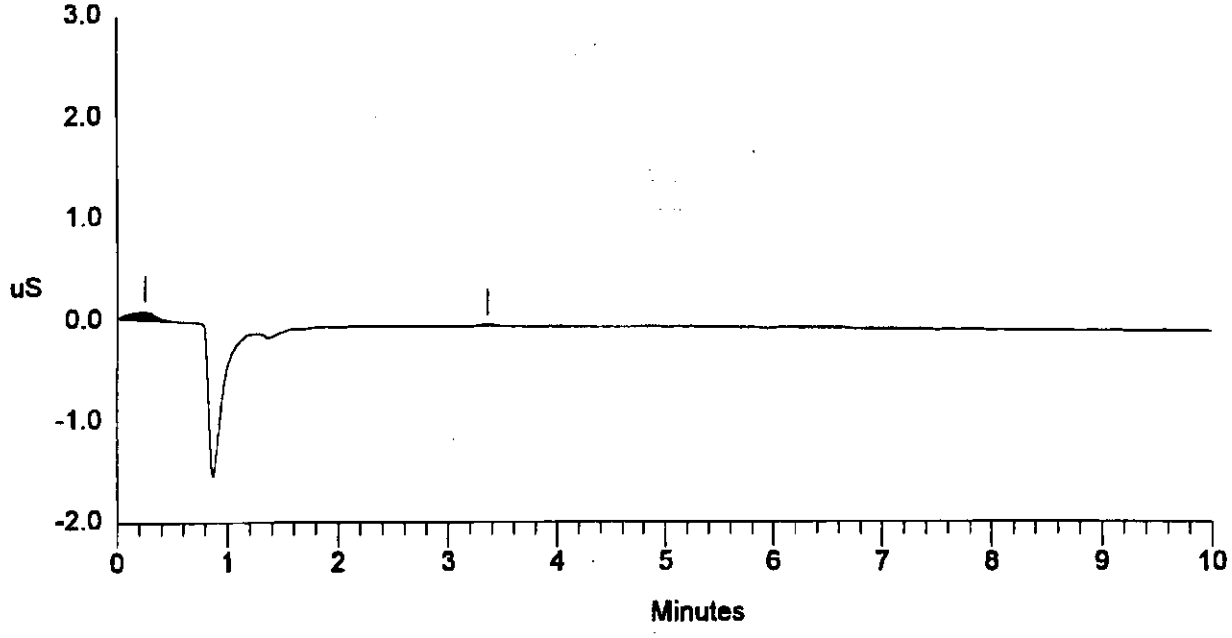
Sample Name: PREP BLANK Date: 05/19/1996 13:04:49
Data File : C:\DX\DATA\96051901.D04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : A Lambel Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.25		0.000	94	1524	1	
		Totals	0.000	94	1524		

File: 96051901.D04 Sample: PREP BLANK **WHC-SD-WM-DP-183, REV. 0**



DATA
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IN PACKAGE

Sample Name: S96T001543 Date: 05/19/1996 13:18:13
Data File : C:\DX\DATA\96051901.D05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

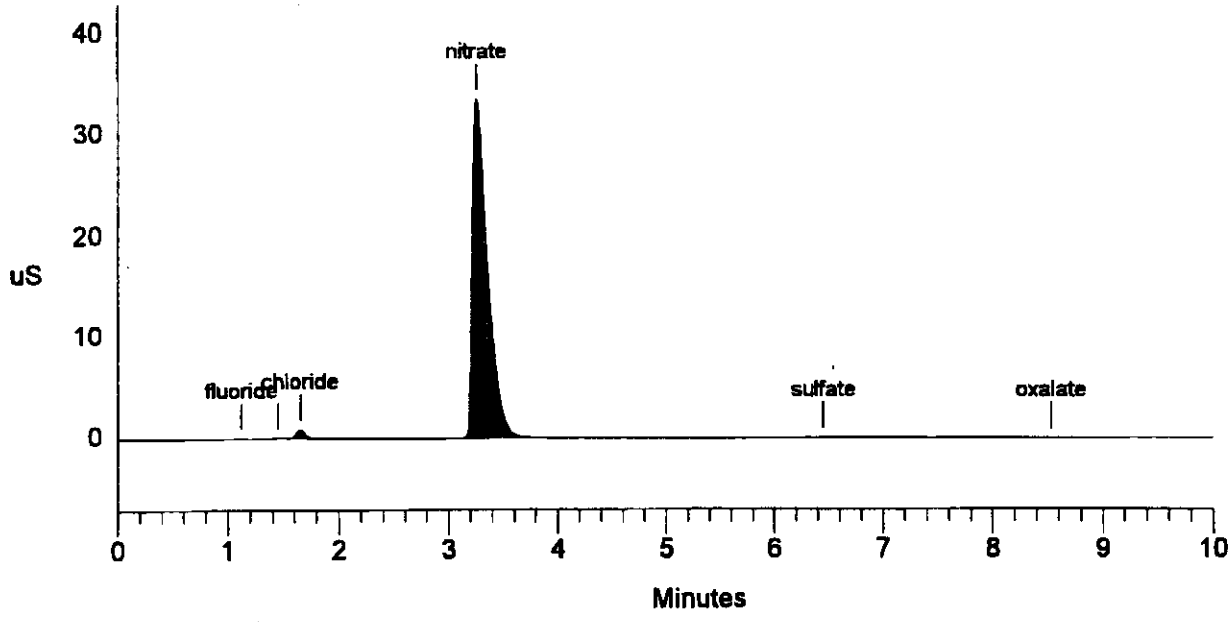
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.12	fluoride	97.791	31	124	1	5.00
2	1.45		0.000	86	568	1	
3	1.65	chloride	1430.195	916	4617	1	0.00
4	3.26	nitrate	143236.961	33516	316262	1	-1.61
5	6.45	sulfate	682.263	64	1105	1	-0.82
6	8.53	oxalate	432.424	24	437	1	0.00
		Totals	145879.633	34637	323113		

WHC-SD-WM-DP-183, REV. C

File: 96051901.D05 Sample: S96T001543



DATA NOT USED IN PACKAGE

Sample Name: S96T001543 DUP Date: 05/19/1996 13:30:10
Data File : C:\DX\DATA\96051901.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

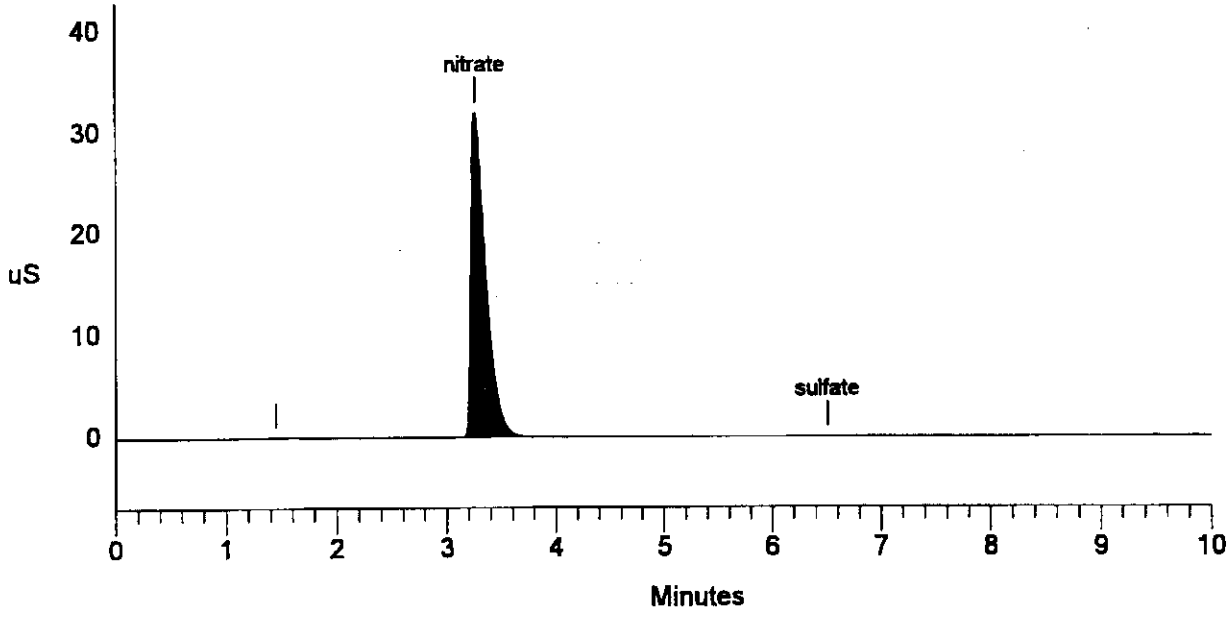
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.45		0.000	60	385	1	
2	3.27	nitrate	136369.890	32071	299409	1	-1.41
3	6.51	sulfate	465.404	39	544	1	0.00
		Totals	136835.294	32170	300338		

WHC-SD-WM-DP-183, REV. C

File: 96051901.D06 Sample: S96T001543 DUP



DATA NOT USED IN PACKAGE

Sample Name: S96T001543 SPIKE Date: 05/19/1996 13:41:39
Data File : C:\DX\DATA\96051901.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : A Lambert Column: AG4A/AS4A anion column

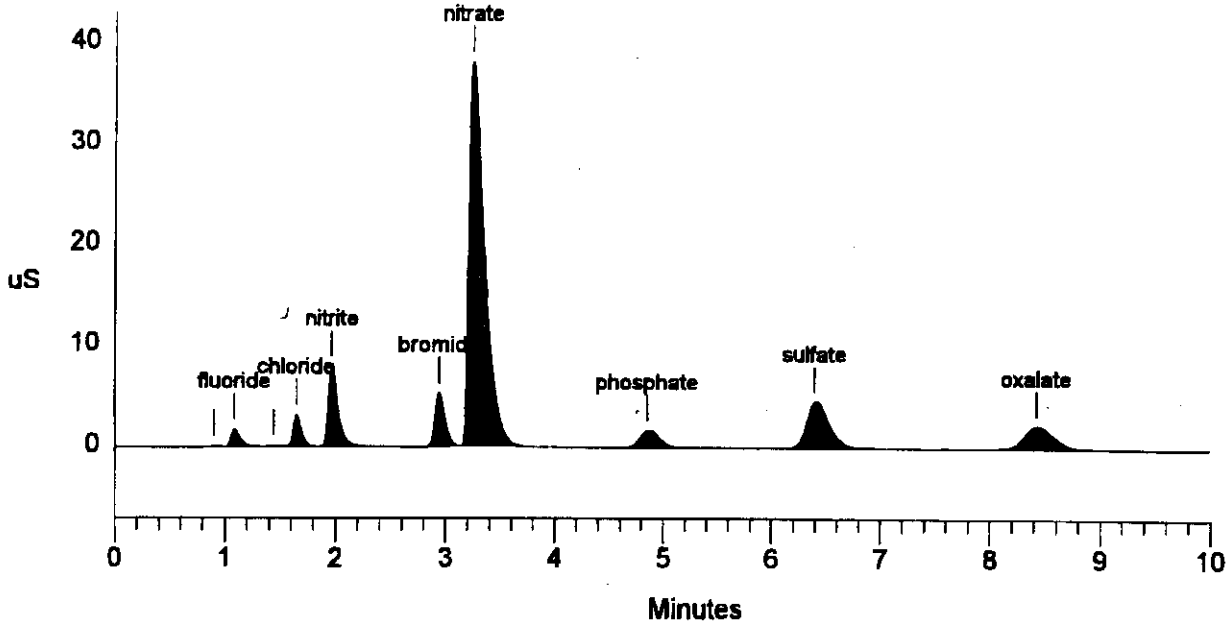
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	66	326	2	
2	1.09	fluoride	2226.807	1684	9684	2	1.88
3	1.44		0.000	58	368	2	
4	1.65	chloride	4603.504	3111	15073	1	-0.40
5	1.97	nitrite	20981.795	7895	47499	1	-2.32
6	2.94	bromide	21594.355	5287	32775	1	-0.68
7	3.25	nitrate	165249.859	37973	371723	1	-2.01
8	4.85	phosphate	21667.009	1631	21547	1	-1.62
9	6.40	sulfate	25135.482	4495	65525	1	-1.64
10	8.43	oxalate	20656.198	2224	42146	1	-1.25
		Totals	282115.009	64424	606666		

WHC-SD-WM-DP-183, REV. C

File: 96051901.D07 Sample: S96T001543 SPIKE



DATA NOT USED IN PACKAGE

LABCORE Completed Worklist Report for Worklist# 8915

Analyst: eal **Instrument:** IC01 **Book#** 136N9A

Method: LA533105 Rev/Mod D-1

Worklist Comment: C-106 IC. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1		<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1		<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1		<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1		<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1		<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1		<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1		<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1		1.56e-01	0.156	ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01		5.63e+01	95.424	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01		7.22e+01	91.392	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.48e02		5.14e+02	93.796	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02		5.30e+02	92.174	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02		5.76e+02	93.811	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02		5.23e+02	95.788	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02		6.00e+02	95.087	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.15e02		4.95e+02	96.117	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1		<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1		<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1		<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1		<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1		<1.40e-1		ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1		<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1		<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S96T001565	W	0	@IC-01	F-02	SOLID	N/A	<	1.058e+04	10580.000	ug/g
4	SAMPLE	S96T001565	W	0	@IC-01	CL-02	SOLID	N/A	<	1.384e+04	13840.000	ug/g
4	SAMPLE	S96T001565	W	0	@IC-01	NO2-02	SOLID	N/A	<	8.708e+04	87090.000	ug/g
4	SAMPLE	S96T001565	W	0	@IC-01	NO3-02	SOLID	N/A		2.905e+07	113900.000	ug/g
4	SAMPLE	S96T001565	W	0	@IC-01	PO4-02	SOLID	N/A	<	9.677e+04	96780.000	ug/g
4	SAMPLE	S96T001565	W	0	@IC-01	SO4-02	SOLID	N/A	<	1.106e+05	110600.000	ug/g
5	DUP	S96T001565	W	0	@IC-01	F-02	SOLID	<1.06e4		<1.09e4		RPD
5	DUP	S96T001565	W	0	@IC-01	CL-02	SOLID	<1.38e4		<1.43e4		RPD
5	DUP	S96T001565	W	0	@IC-01	NO2-02	SOLID	<8.71e4		<9.00e4		RPD
5	DUP	S96T001565	W	0	@IC-01	NO3-02	SOLID	2.90e+07		1.80e+07	46.809	RPD
5	DUP	S96T001565	W	0	@IC-01	PO4-02	SOLID	<9.68e4		<1.00e5		RPD
5	DUP	S96T001565	W	0	@IC-01	SO4-02	SOLID	<1.11e5		<1.14e5		RPD
5	DUP	S96T001565	W	0	@IC-01	OXALATE2	SOLID	<8.55e4		1.31e+05		RPD
6	SPK	S96T001565	W	0	@IC-01	F-02	SOLID	5.90e01		5.69e+01	96.441	% Recovery
6	SPK	S96T001565	W	0	@IC-01	CL-02	SOLID	7.90e01		7.41e+01	93.797	% Recovery
6	SPK	S96T001565	W	0	@IC-01	NO2-02	SOLID	5.48e02		5.33e+02	97.263	% Recovery
6	SPK	S96T001565	W	0	@IC-01	NO3-02	SOLID	6.14e02		5.96e+02	97.068	% Recovery

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

WHC-SD-WM-DP-183, REV. 0

LABCORE Completed Worklist Report for Worklist# 8915

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
6	SPK	S96T001565	0	W	@IC-01	PO4-02	SOLID	5.46e02		5.35e+02	97.985	% Recovery
6	SPK	S96T001565	0	W	@IC-01	SO4-02	SOLID	6.31e02		6.16e+02	97.623	% Recovery
6	SPK	S96T001565	0	W	@IC-01	OXALATE2	SOLID	5.15e02		5.13e+02	99.612	% Recovery
7	SAMPLE	S96T001691	0	W	@IC-01	F-02	SOLID	N/A	<	9.513e+03	9512.000	ug/g
7	SAMPLE	S96T001691	0	W	@IC-01	CL-02	SOLID	N/A	<	1.244e+04	12440.000	ug/g
7	SAMPLE	S96T001691	0	W	@IC-01	NO2-02	SOLID	N/A	<	7.830e+04	78310.000	ug/g
7	SAMPLE	S96T001691	0	W	@IC-01	NO3-02	SOLID	N/A		2.178e+07	102400.000	ug/g
7	SAMPLE	S96T001691	0	W	@IC-01	PO4-02	SOLID	N/A	<	8.701e+04	87000.000	ug/g
7	SAMPLE	S96T001691	0	W	@IC-01	SO4-02	SOLID	N/A	<	9.945e+04	99430.000	ug/g
7	SAMPLE	S96T001691	0	W	@IC-01	OXALATE2	SOLID	N/A		1.399e+05	76820.000	ug/g
8	DUP	S96T001691	0	W	@IC-01	F-02	SOLID	<9.51e3		<9.34e3		RPD
8	DUP	S96T001691	0	W	@IC-01	CL-02	SOLID	<1.24e4		<1.22e4		RPD
8	DUP	S96T001691	0	W	@IC-01	NO2-02	SOLID	<7.83e4		<7.69e4		RPD
8	DUP	S96T001691	0	W	@IC-01	NO3-02	SOLID	2.18e+07		2.43e+07	10.846	RPD
8	DUP	S96T001691	0	W	@IC-01	PO4-02	SOLID	<8.70e4		<8.54e4		RPD
8	DUP	S96T001691	0	W	@IC-01	SO4-02	SOLID	<9.94e4		<9.76e4		RPD
8	DUP	S96T001691	0	W	@IC-01	OXALATE2	SOLID	1.40e+05		1.19e+05	16.216	RPD

Final page for worklist# 8915

Analyst Signature Date

Analyst Signature Date

H Anastn 5-21-96
Reviewer Signature Date

DATA
NOT USED
IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 8915

Analyst: EAL **Instrument:** IC00 _____ **Book#** 136119-A

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
	PrepBlank							
3	SAMPLE	S96T001565	0	W	@IC-01	SOLID	96000174	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T001565	0	W	@IC-01	SOLID		
5	SPK	S96T001565	0	W	@IC-01	SOLID		
6	SAMPLE	S96T001691	0	W	@IC-01	SOLID	96000174	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
7	DUP	S96T001691	0	W	@IC-01	SOLID		

Final page for worklist # 8915

A Lambal 05.19.96
Analyst Signature **Date**

Analyst Signature **Date**

Exported 8915 may.csv
Jnshell 5/20/96 JMF
Uploaded 5/20/96 JMF
Validated except oxalate on 1565 which will be rerun. JMF
on WKL 8991 5/24/96

Data Entry Comments: Rerun oxalate on 1565

DATA
NOT USED
IN PACKAGE

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code

May. 21. 1996 2:34PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 23

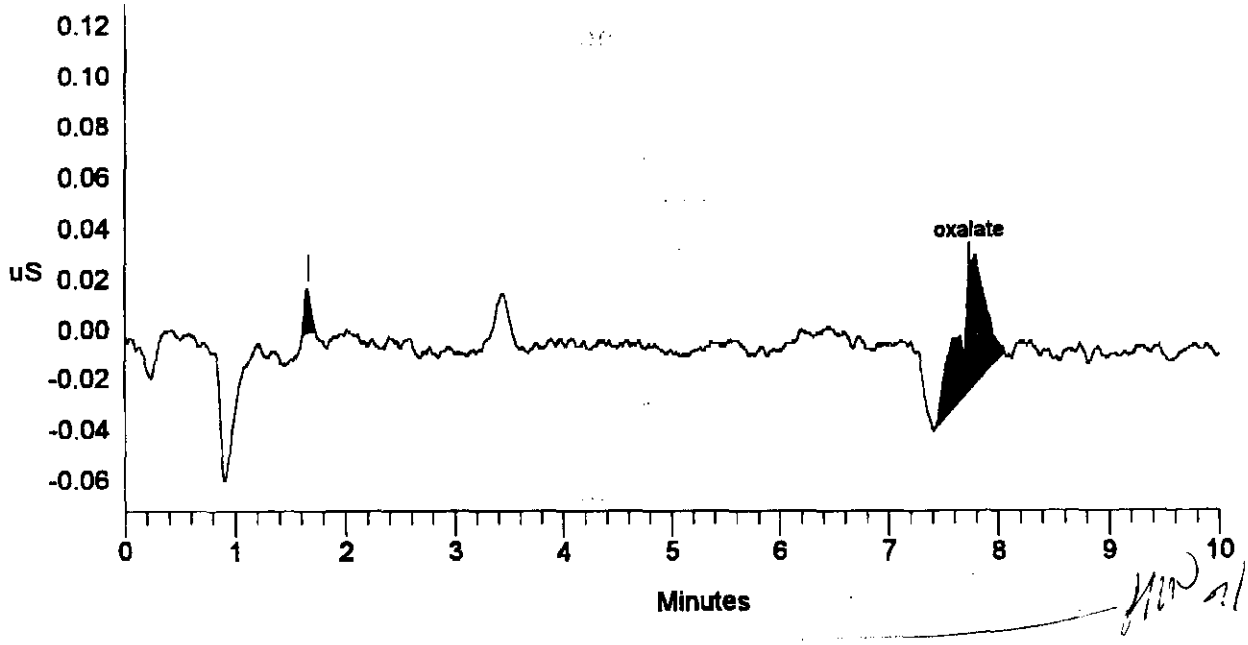
Sample Name: INST. BLANK	Date: 05/19/1996 14:04:19
Data File : C:\DX\DATA\96051901.D09	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 9	Detector:CDM-1
Analyst : A. Lambel 05-19-96	Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	7.73	oxalate	0.156	45	875	1	-9.38
		Totals	0.156	45	875		

File: 96051901.D09 Sample: INST. BLANK



MW 5/18/96

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____TO ____.

DATA
NOT USED
IN PACKAGE

May 21. 1996 2:34PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 21

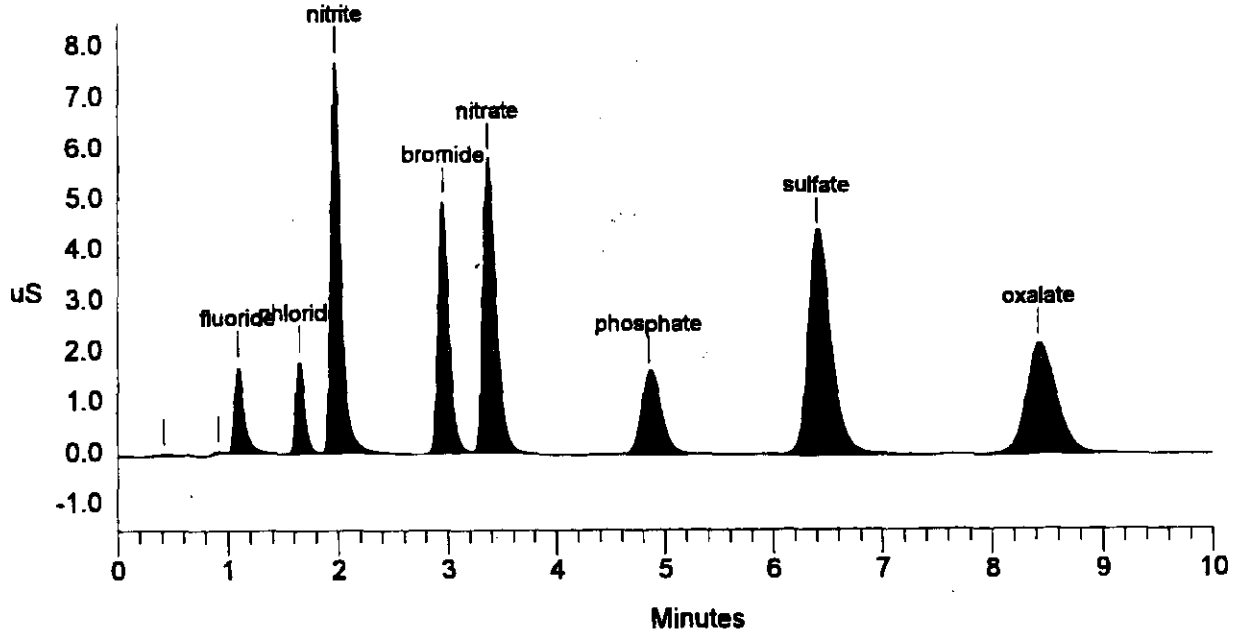
Sample Name: 136N9-A STD. Date: 05/19/1996 14:27:57
Data File : C:\DX\DATA\96051901.D11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : A Lambel Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.42		0.000	21	213	1	
2	0.91		0.000	44	195	2	
3	1.09	fluoride	56.252	1715	10048	2	2.50
4	1.65	chloride	72.188	1813	9620	1	-0.40
5	1.97	nitrite	514.109	7706	47724	1	-1.99
6	2.95	bromide	530.282	4950	33007	1	-0.23
7	3.37	nitrate	576.435	5808	47085	1	1.61
8	4.85	phosphate	523.337	1629	21333	1	-1.62
9	6.40	sulfate	600.014	4377	64091	1	-1.64
10	8.43	oxalate	495.143	2176	41407	1	-1.25
		Totals	3367.761	30239	274723		

File: 96051901.D11 Sample: 136N9-A STD.



DATA NOT USED IN PACKAGE

May. 21. 1996 2:33PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 20

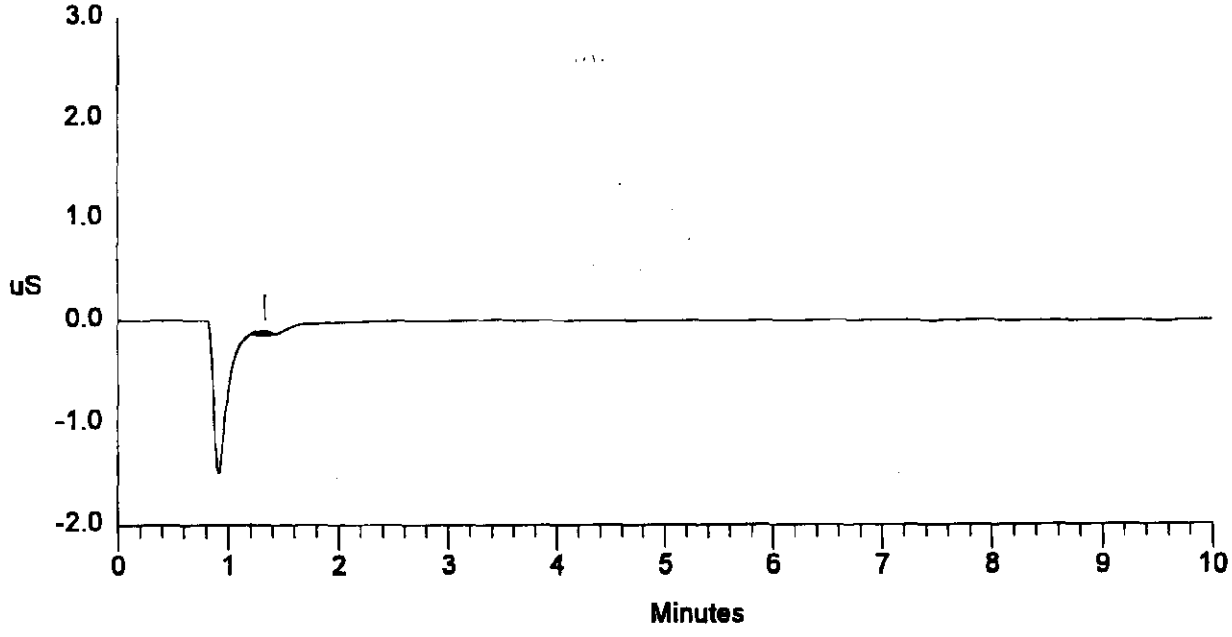
Sample Name:	PREP BLANK	Date: 05/19/1996 14:40:40	
Data File :	C:\DX\DATA\96051901.D12		
Method :	C:\DX\METHOD\KIT.MET		
ACI Address:	1 System: 1	Inject#: 12	Detector:CDM-1
Analyst :	A Lambert	Column: AG4A/AS4A anion column	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.33		0.000	44	375	1	
		Totals	0.000	44	375		

File: 96051901.D12 Sample: PREP BLANK



696

DATA
NOT USED
IN PACKAGE

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==========================================================================
| Sample Name: S96T001565                    Date: 05/19/1996 14:52:11    |
| Data File  : C:\DX\DATA\96051911.D13                                    |
| Method     : C:\DX\METHOD\KIT.MET                                       |
| ACI Address: 1  System: 1  Inject#: 13                Detector:CDM-1    |
| Analyst    :                Column: AG4A/AS4A anion column               |
==========================================================================
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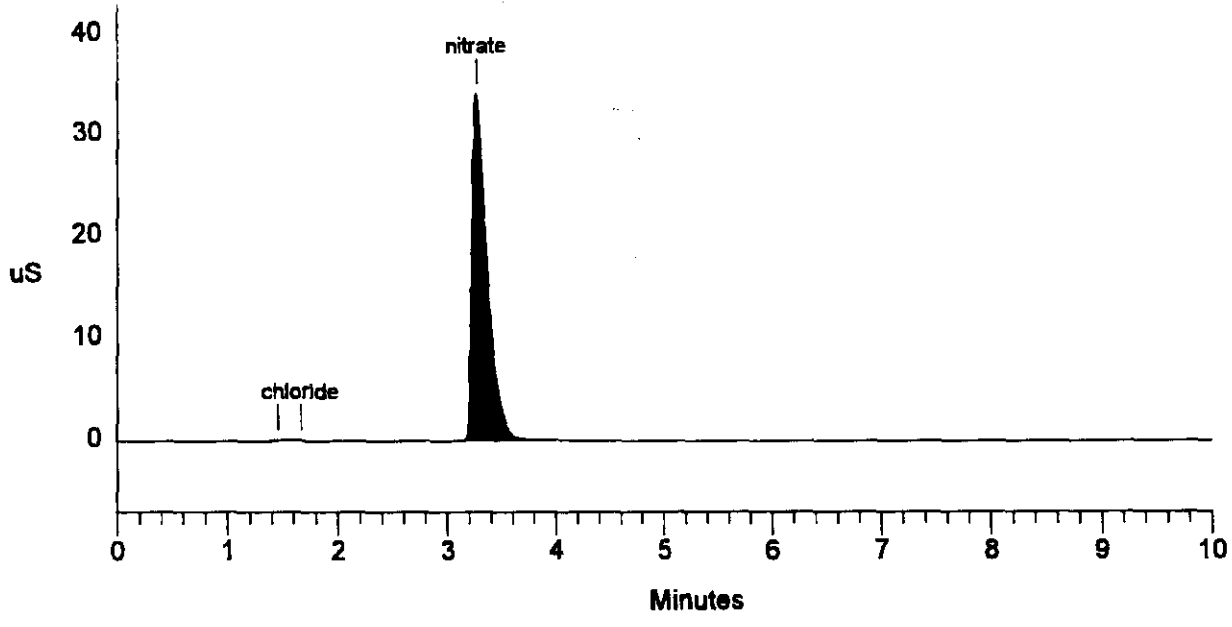
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	4141	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.45		0.000	50	343	1	
2	1.66	chloride	34.347	26	109	1	0.40
3	3.27	nitrate	147789.180	34178	327548	1	-1.41
		Totals	147823.527	34254	327999		

File: 96051911.D13 Sample: S96T001565



DATA
NOT USED
IN PACKAGE

May. 21. 1996 2:33PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 18

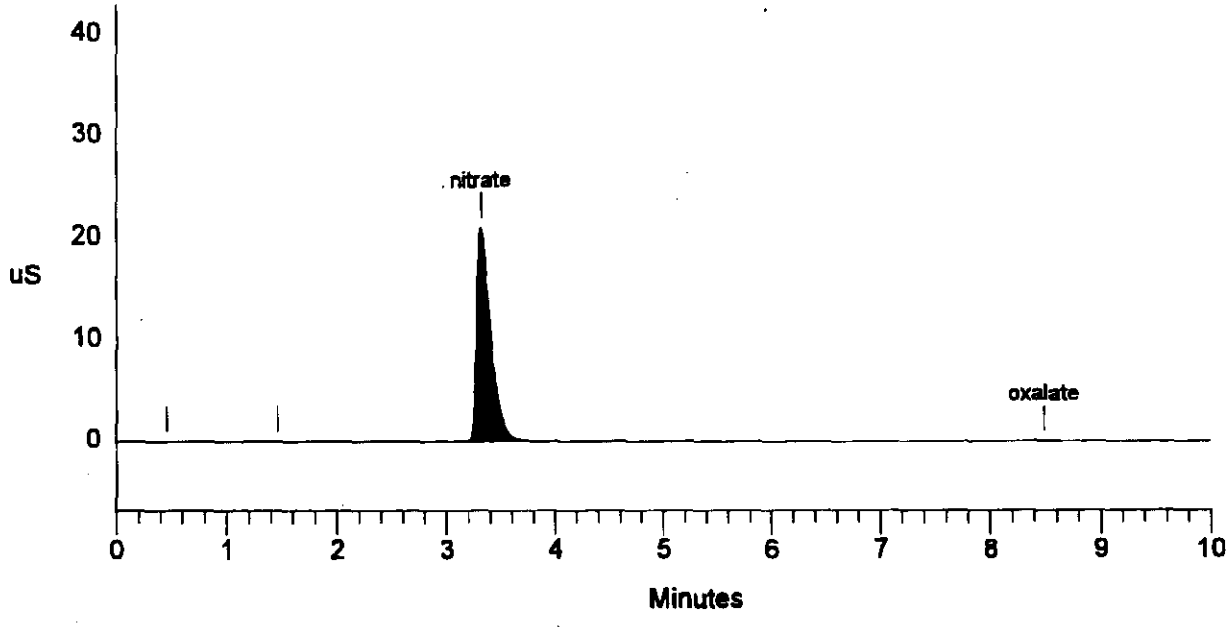
```
==============================================================================
| Sample Name: S96T001565 DUP                    Date: 05/19/1996 15:03:23   |
| Data File  : C:\DX\DATA\96051911.D14                                       |
| Method     : C:\DX\METHOD\KIT.MET                                          |
| ACI Address: 1  System: 1  Inject#: 14                  Detector:CDM-1     |
| Analyst    :                  Column: AG4A/AS4A anion column              |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.45		0.000	32	322	1	
2	1.45		0.000	26	142	1	
3	3.31	nitrate	88562.769	20979	187268	1	0.00
4	8.48	oxalate	643.352	43	868	1	-0.62
		Totals	89206.120	21079	188600		

File: 96051911.D14 Sample: S96T001565 DUP



DATA
NOT USED
IN PACKAGE

May. 21. 1996 2:32PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 17

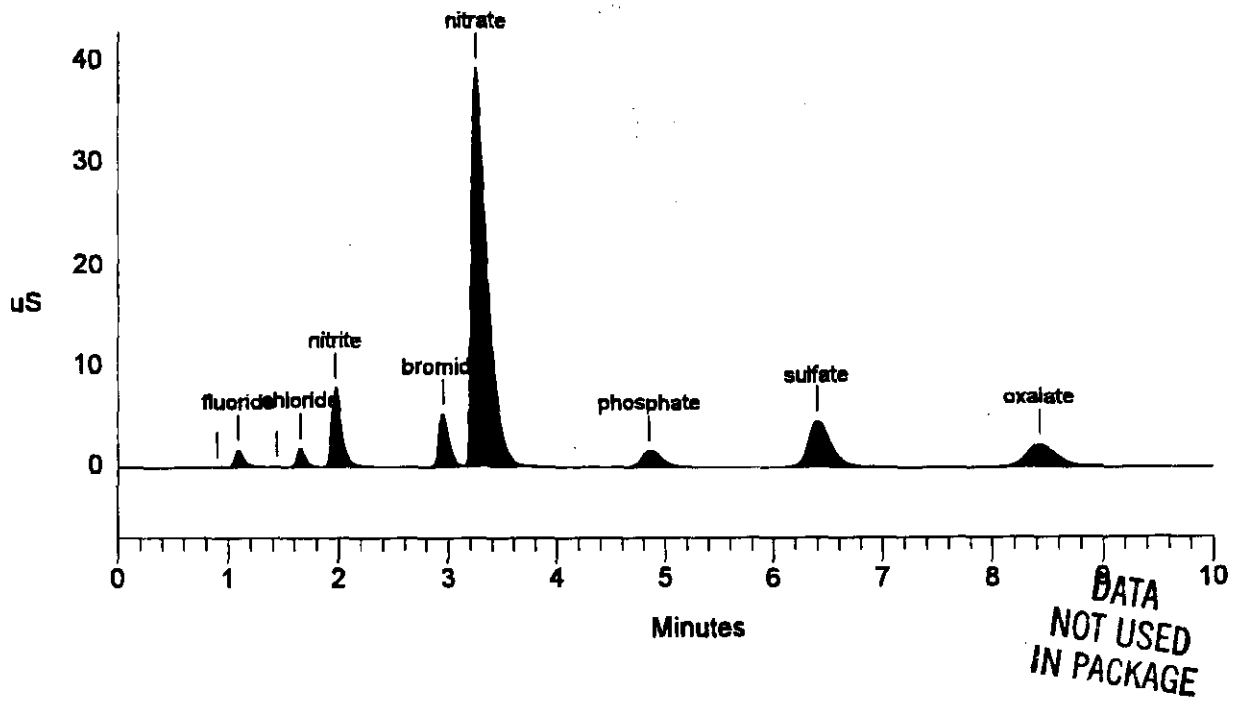
Sample Name: S96T001565 SPIKE Date: 05/19/1996 15:14:08
Data File : C:\DX\DATA\96051911.D15
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 15 Detector:CDM-1
Analyst : A Lambel Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	50	240	2	
2	1.09	fluoride	2299.697	1716	10018	2	2.50
3	1.44		0.000	46	298	2	
4	1.65	chloride	2993.855	1882	9732	1	0.00
5	1.97	nitrite	21537.713	7892	48796	1	-1.99
6	2.95	bromide	21569.487	5287	32736	1	-0.23
7	3.25	nitrate	171881.310	39319	388890	1	-1.81
8	4.85	phosphate	21605.532	1668	21484	1	-1.62
9	6.40	sulfate	24899.187	4499	64891	1	-1.64
10	8.43	oxalate	20744.892	2242	42330	1	-1.25
		Totals	287531.673	64601	619416		

File: 96051911.D15 Sample: S96T001565 SPIKE



DATA NOT USED IN PACKAGE

May. 21. 1996 2:32PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 16

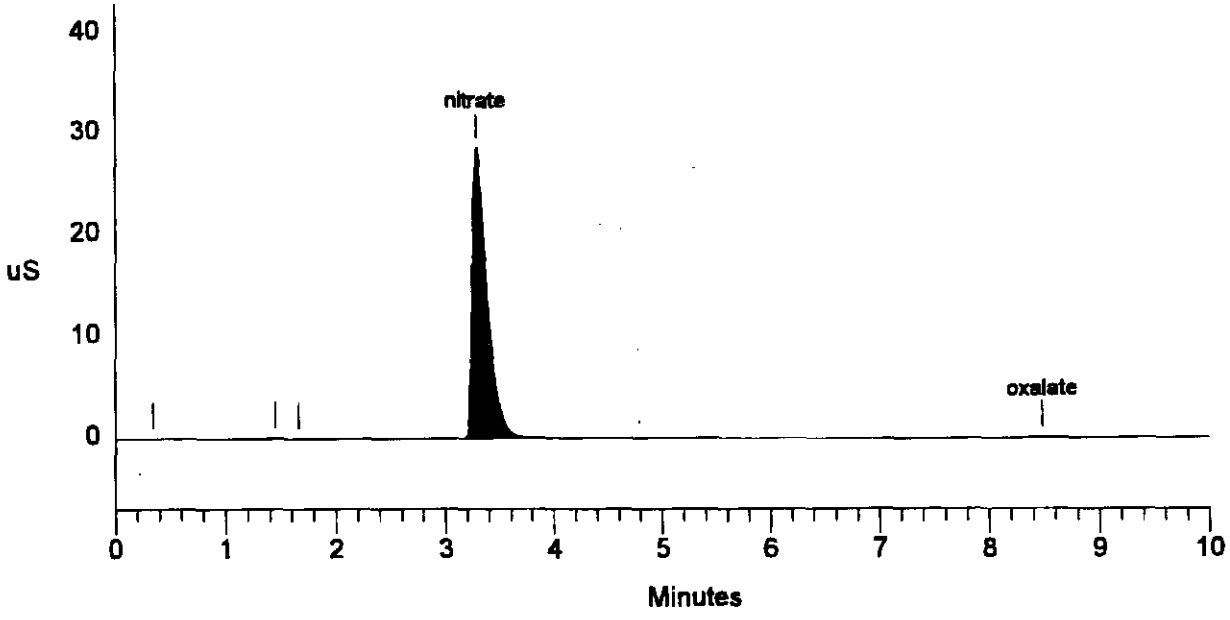
```
==========================================================================
| Sample Name: S96T001691                    Date: 05/19/1996 15:26:18   |
| Data File  : C:\DX\DATA\96051911.D16                                   |
| Method     : C:\DX\METHOD\KIT.MET                                      |
| ACI Address: 1  System: 1  Inject#: 16                Detector:CDM-1   |
| Analyst    :                Column: AG4A/AS4A anion column             |
==========================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.34		0.000	17	169	1	
2	1.45		0.000	40	255	1	
4	3.29	nitrate	123236.002	28530	267727	1	-0.80
5	8.48	oxalate	791.508	67	1171	1	-0.62
		Totals	124027.510	28653	269322		

File: 96051911.D16 Sample: S96T001691



DATA NOT USED IN PACKAGE

May. 21. 1996 2:32PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 15

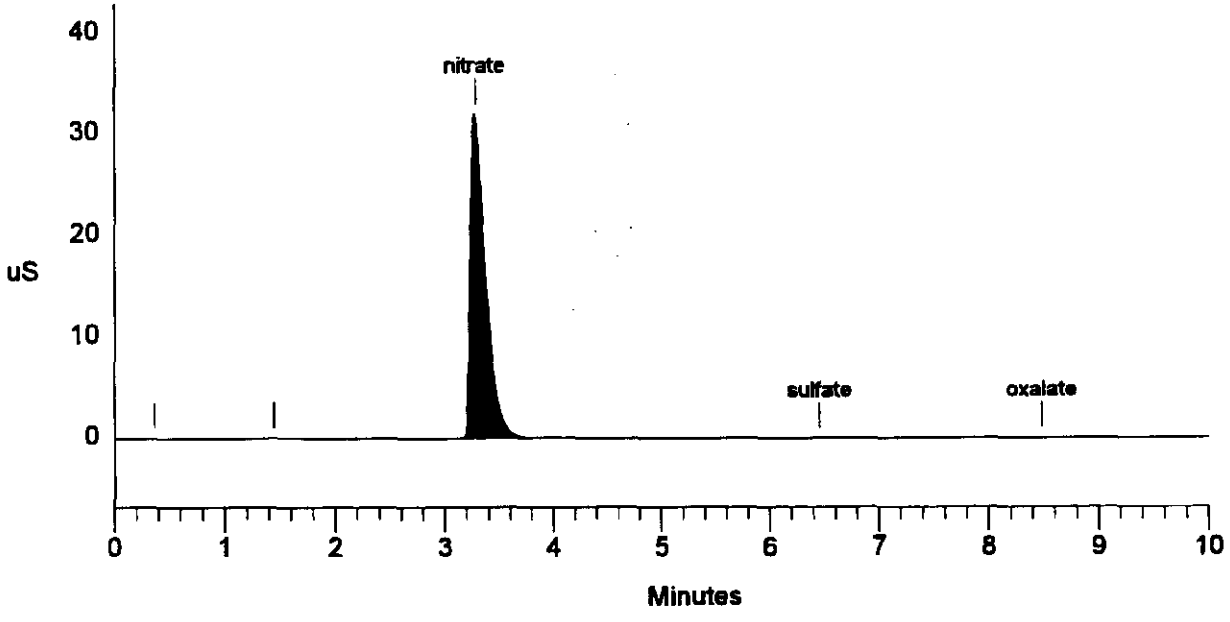
```
==========================================================================
| Sample Name: S96T001691  DUP                Date: 05/19/1996 15:37:28   |
| Data File  : C:\DX\DATA\96051911.D17                                    |
| Method     : C:\DX\METHOD\KIT.MET                                       |
| ACI Address: 1  System: 1  Inject#: 17                Detector:CDM-1    |
| Analyst    :                Column: AG4A/AS4A anion column              |
==========================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	4141	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.36		0.000	17	121	1	
2	1.44		0.000	49	336	1	
3	3.28	nitrate	139986.090	31998	308258	1	-1.01
4	6.45	sulfate	412.175	22	406	1	-0.82
5	8.48	oxalate	686.549	56	957	1	-0.62
		Totals	141084.815	32142	310079		

File: 96051911.D17 Sample: S96T001691 DUP



DATA NOT USED IN PACKAGE

May. 21. 1996 2:31PM WHC 222S LAB ROOM 2F BACKSIDE No. 1056 P. 14

LABCORE Completed Worklist Report for Worklist# 8916

Analyst: eal **Instrument:** IC01 **Book#** 136N9 A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 IC. RCJ

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1		<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1		<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1		<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1		<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1		<1.40e-1		ug/mL
1	CCB			0	@IC-QC	PO4	QC	1		<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1		<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1		<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01		5.59e+01	94.746	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01		7.18e+01	90.886	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.48e02		5.19e+02	94.708	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02		5.55e+02	96.522	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02		5.74e+02	93.485	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02		5.39e+02	98.718	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02		6.07e+02	96.197	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.15e02		5.05e+02	98.058	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1		<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1		<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1		<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1		<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1		<1.40e-1		ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1		<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1		<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1		<1.05e-1		ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	F-02	SOLID	N/A	<	1.041e+04	10410.000	ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	CL-02	SOLID	N/A	<	1.361e+04	13610.000	ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	NO2-02	SOLID	N/A	<	8.567e+04	85680.000	ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	NO3-02	SOLID	N/A		1.714e+07	112000.000	ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	PO4-02	SOLID	N/A	<	9.520e+04	95200.000	ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	SO4-02	SOLID	N/A	<	1.088e+05	108800.000	ug/g
4	SAMPLE	S96T002821	W	0	@IC-01	OXALATE2	SOLID	N/A		3.405e+05	84060.000	ug/g
5	DUP	S96T002821	W	0	@IC-01	F-02	SOLID	<1.04e4		<1.05e4		RPD
5	DUP	S96T002821	W	0	@IC-01	CL-02	SOLID	<1.36e4		<1.37e4		RPD
5	DUP	S96T002821	W	0	@IC-01	NO2-02	SOLID	<8.57e4		<8.63e4		RPD
5	DUP	S96T002821	W	0	@IC-01	NO3-02	SOLID	1.71e+07		2.78e+07	47.661	RPD
5	DUP	S96T002821	W	0	@IC-01	PO4-02	SOLID	<9.52e4		<9.59e4		RPD
5	DUP	S96T002821	W	0	@IC-01	SO4-02	SOLID	<1.09e5		<1.10e5		RPD
5	DUP	S96T002821	W	0	@IC-01	OXALATE2	SOLID	3.40e+05		3.68e+05	7.910	RPD
6	SPK	S96T002821	W	0	@IC-01	F-02	SOLID	5.90e01		5.43e+01	92.034	% Recovery
6	SPK	S96T002821	W	0	@IC-01	CL-02	SOLID	7.90e01		6.85e+01	86.709	% Recovery
6	SPK	S96T002821	W	0	@IC-01	NO2-02	SOLID	5.48e02		4.98e+02	90.876	% Recovery

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

WHC-SD-WM-DP-183, REV. 0

LABCORE Completed Worklist Report for Worklist# 8916

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
6	SPK	S96T002821	0	W	@IC-01	NO3-02	SOLID	6.14e02	6.13e+02	99.837	% Recovery
6	SPK	S96T002821	0	W	@IC-01	PO4-02	SOLID	5.46e02	5.10e+02	93.407	% Recovery
6	SPK	S96T002821	0	W	@IC-01	SO4-02	SOLID	6.31e02	5.82e+02	92.235	% Recovery
6	SPK	S96T002821	0	W	@IC-01	OXALATE2	SOLID	5.15e02	4.78e+02	92.816	% Recovery

Final page for worklist# 8916

Analyst Signature Date

Analyst Signature Date

H Anastor 5-21-96
Reviewer Signature Date

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 8916

Analyst: EAL **Instrument:** IC00 _____ **Book#** 136N9-A

Method: LA-533-105 **Rev/Mod** D-1

Worklist Comment: C-106 IC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
	Prep Blank							
3	SAMPLE	S96T002821	0	W	@IC-01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			CL-02 , F-02 , NO2-02 , NO3-02 , OXALATE2, PO4-02 , SO4-02			
4	DUP	S96T002821	0	W	@IC-01	SOLID		
5	SPK	S96T002821	0	W	@IC-01	SOLID		

Final page for worklist # 8916

A Lambel 15·19·96
Analyst Signature **Date**

Analyst Signature **Date**

Exported 8916 may.csv
Installed 5/20/96 JMF
Uploaded 5/20/96 JM Fuge
Validated 5/20/96 JM Fuge

DATA NOT USED IN PACKAGE

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Sample Name: INST. BLANK Date: 05/19/1996 07:19:01
Data File : C:\DX\DATA\96051711.D02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : A. Lambel Column: AG4A/AS4A anion column

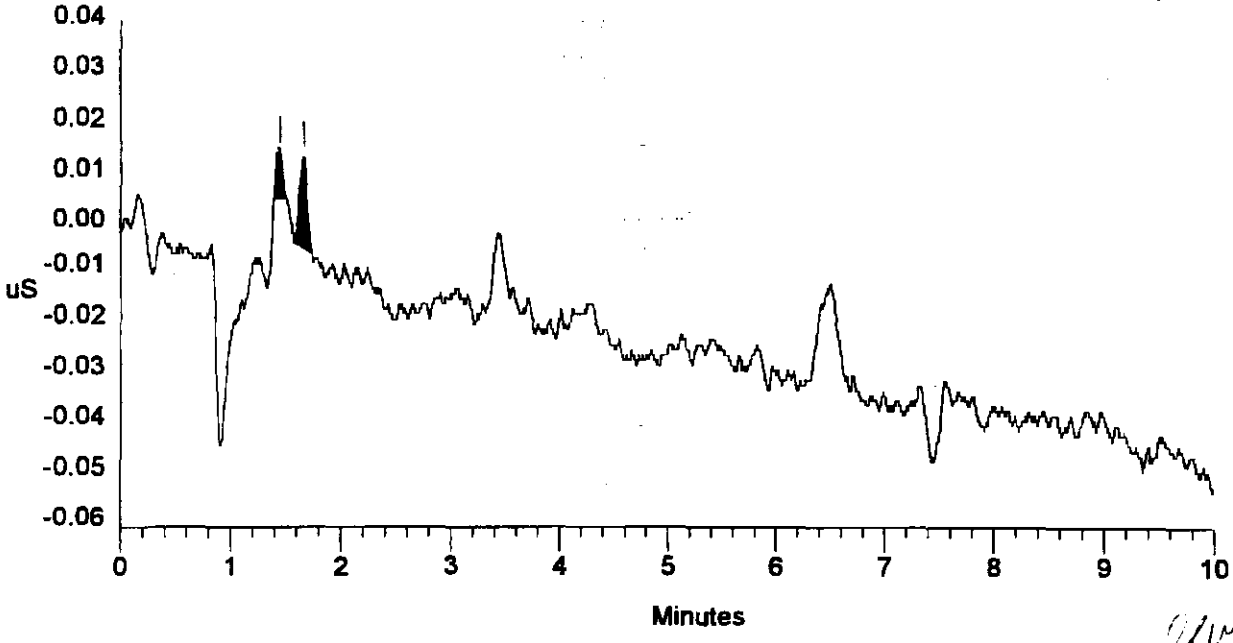
5/19/96

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

File: 96051711.D02 Sample: INST. BLANK WHC-SD-WM-DP-183, REV. 0



7/18/96

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES ____ TO ____.

DATA NOT USED IN PACKAGE

Sample Name: 136N9-A STD. Date: 05/19/1996 08:14:57
Data File : C:\DX\DATA\96051711.D06
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 6 Detector:CDM-1
Analyst : A Lambert Column: AG4A/AS4A anion column

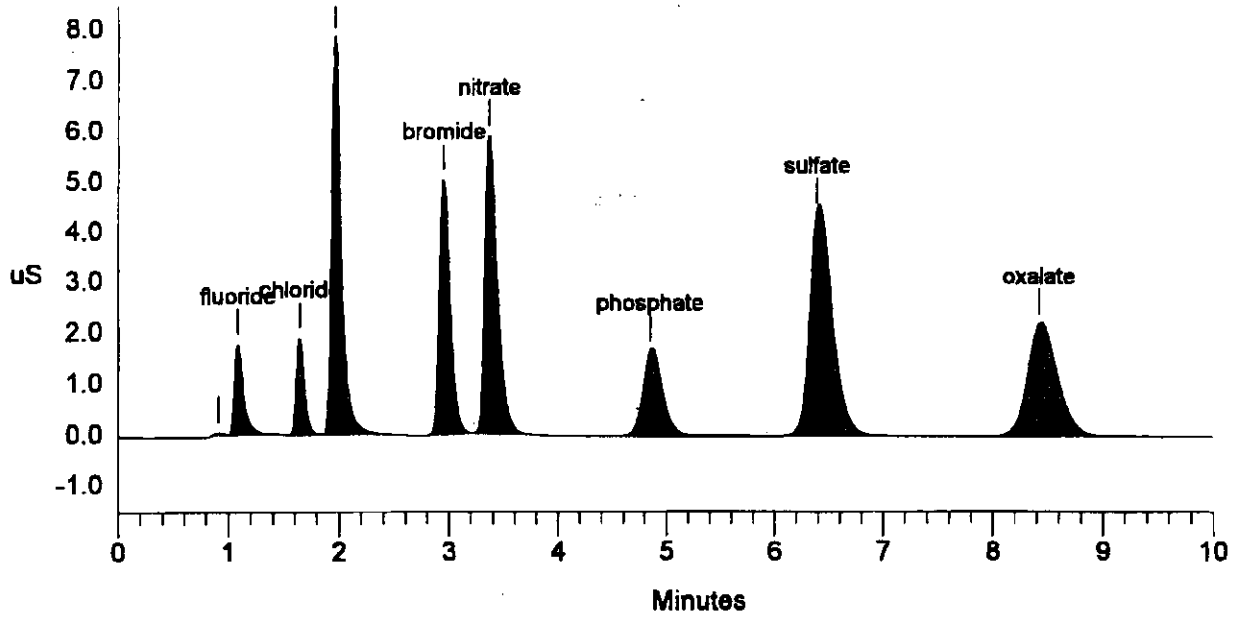
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	53	254	1	
2	1.09	fluoride	55.919	1755	9985	1	1.88
3	1.65	chloride	71.848	1889	9574	1	-0.40
4	1.97	nitrite	519.250	7844	48216	1	-2.32
5	2.95	bromide	554.704	5045	34583	1	-0.23
6	3.37	nitrate	573.807	5893	46862	1	1.81
7	4.85	phosphate	538.826	1662	21979	1	-1.62
8	6.40	sulfate	606.875	4405	64845	1	-1.64
9	8.43	oxalate	504.889	2194	42238	1	-1.25
		Totals	3426.119	30739	278536		

File: 96051711.D06 Sample: 136N9-A STD.

WHC-SD-WM-DP-183, REV. 0



DATA NOT USED IN PACKAGE

Sample Name: PREP. BLANK Date: 05/19/1996 08:36:20
Data File : C:\DX\DATA\96051711.D07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

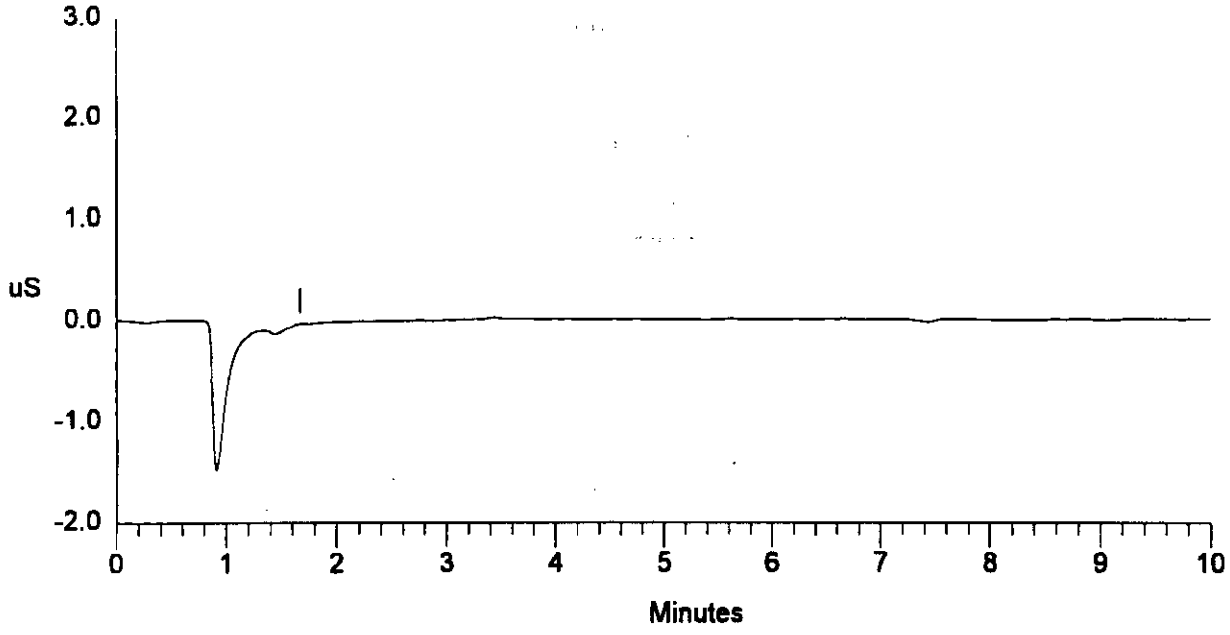
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

WHC-SD-WM-DP-183, REV. 0

File: 96051711.D07 Sample: PREP. BLANK



DATA NOT USED IN PACKAGE

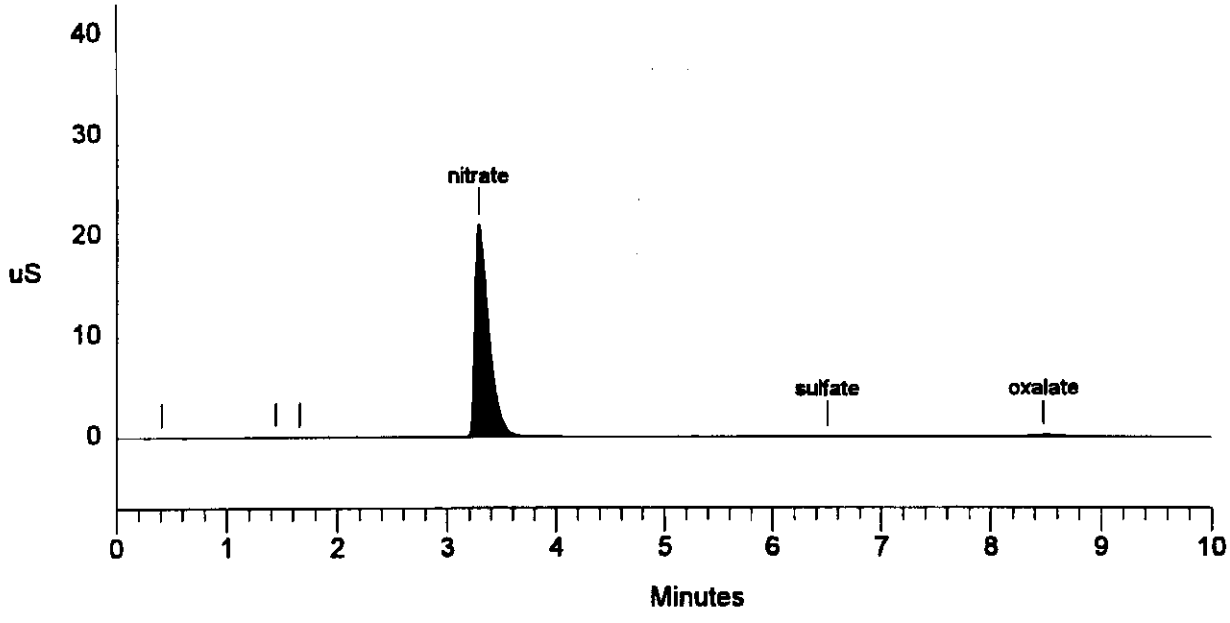
Sample Name: S96T002821 Date: 05/19/1996 08:54:41
Data File : C:\DX\DATA\96051711.D08
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.41		0.000	17	181	1	
2	1.44		0.000	46	298	1	
4	3.29	nitrate	88655.285	21058	187477	1	-0.60
5	6.51	sulfate	370.849	23	299	1	0.00
6	8.48	oxalate	1761.041	160	3156	1	-0.62
		Totals	90787.175	21303	191412		

File: 96051711.D08 Sample: S96T002821 **WHC-SD-WM-DP-183, REV. 0**



DATA NOT USED IN PACKAGE

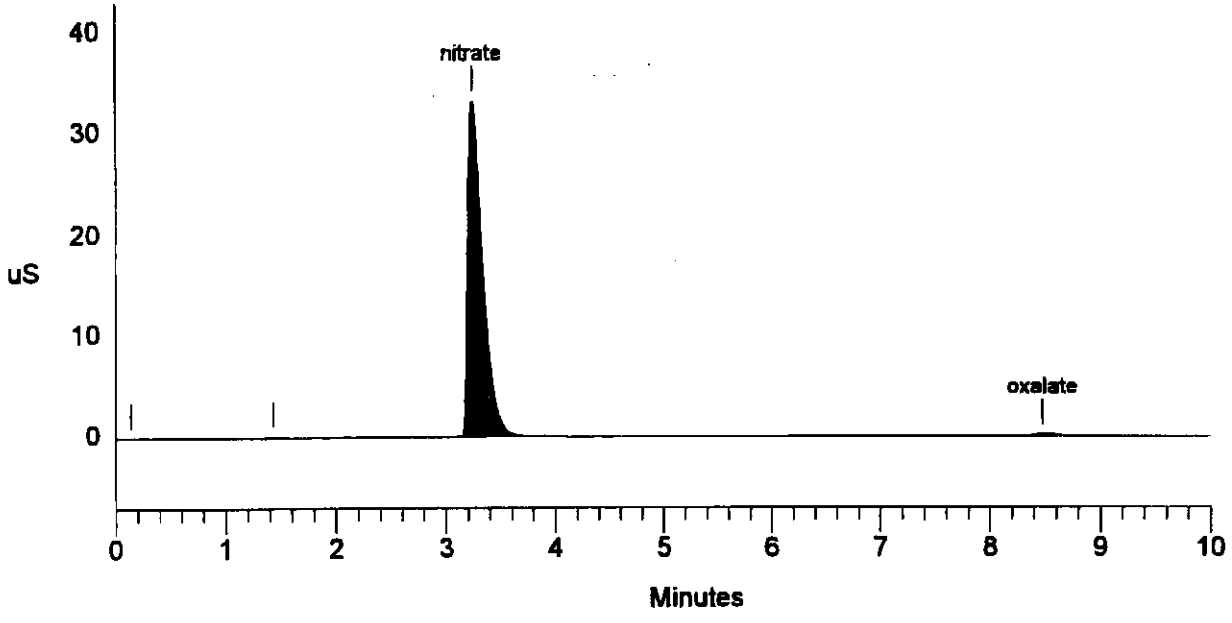
Sample Name: S96T002821 DUP. Date: 05/19/1996 09:43:03
Data File : C:\DX\DATA\96051711.D11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector: CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	4141	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.14		0.000	43	353	1	
2	1.43		0.000	43	286	1	
3	3.24	nitrate	142927.815	33220	315499	1	-2.21
4	8.48	oxalate	1892.470	169	3426	1	-0.62
		Totals	144820.285	33476	319563		

File: 96051711.D11 Sample: S96T002821 DUP. **WHC-SD-WM-DP-183, REV. 0**



DATA NOT USED IN PACKAGE

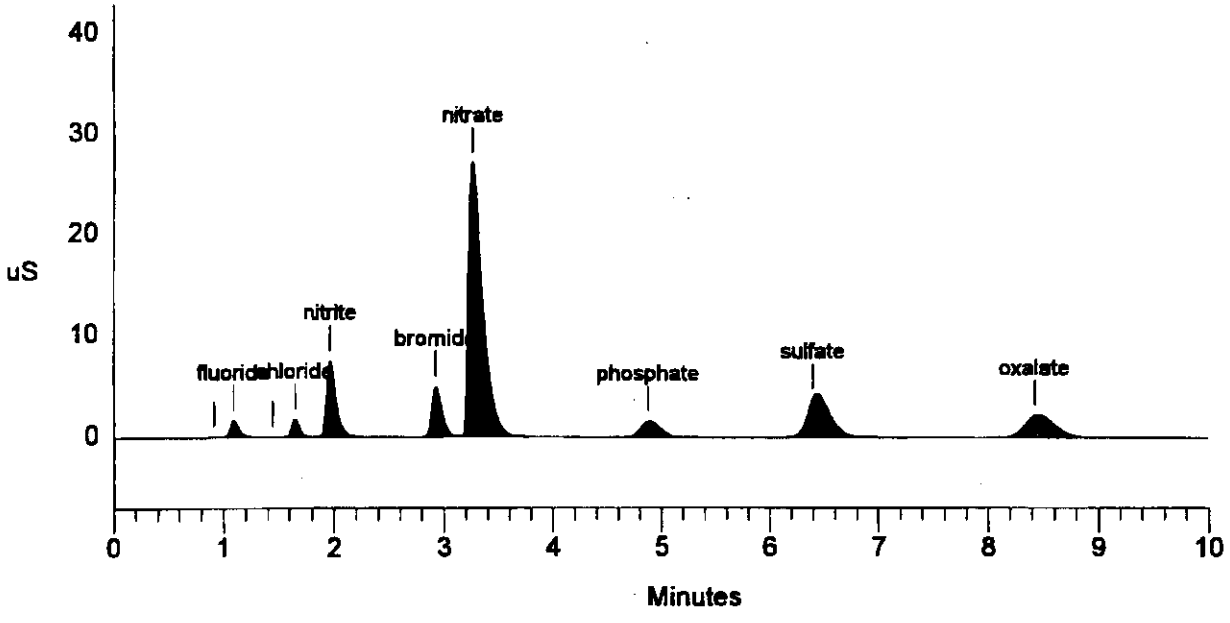
Sample Name: S96T002821 ~~DUP~~. SPK [illegible] 5/20/96 Date: 05/19/1996 09:54:42
Data File : C:\DX\DATA\96051711.D12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : [illegible] Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	4141	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	54	249	2	
2	1.09	fluoride	2192.964	1683	9530	3	2.50
3	1.45		0.000	22	116	4	
4	1.65	chloride	2766.913	1784	8986	1	-0.40
5	1.97	nitrite	20102.569	7543	45449	1	-2.32
6	2.93	bromide	20614.054	4983	31235	1	-1.13
7	3.26	nitrate	113435.602	27060	244535	1	-1.61
8	4.88	phosphate	20586.574	1604	20447	1	-1.08
9	6.40	sulfate	23499.511	3765	61142	1	-1.64
10	8.43	oxalate	21058.157	2202	42981	1	-1.25
		Totals	224256.345	50698	464670		

File: 96051711.D12 Sample: S96T002821 DUP. **WHC-SD-WM-DP-183, REV. 0**



DATA NOT USED IN PACKAGE

WHC-SD-WM-DP-183, REV. 0

LABCORE Completed Worklist Report for Worklist# 8991

Analyst: jlf **Instrument:** IC01 **Book#** 136N9-A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 rerun oxalate, try 2121 df. jmf

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	CCB			0	@IC-QC	F	QC	1	<1.30e-2		ug/mL
1	CCB			0	@IC-QC	CL	QC	1	<1.70e-2		ug/mL
1	CCB			0	@IC-QC	NO2	QC	1	<1.07e-1		ug/mL
1	CCB			0	@IC-QC	BR	QC	1	<1.26e-1		ug/mL
1	CCB			0	@IC-QC	NO3	QC	1	1.62e-01	0.162	ug/mL
1	CCB			0	@IC-QC	PO4	QC	1	<1.19e-1		ug/mL
1	CCB			0	@IC-QC	SO4	QC	1	<1.36e-1		ug/mL
1	CCB			0	@IC-QC	OXALATE2	QC	1	<1.05e-1		ug/mL
2	CCV			0	@IC-QC	F	QC	5.90e01	5.60e+01	94.915	% Recovery
2	CCV			0	@IC-QC	CL	QC	7.90e01	7.43e+01	94.051	% Recovery
2	CCV			0	@IC-QC	NO2	QC	5.48e02	5.11e+02	93.248	% Recovery
2	CCV			0	@IC-QC	BR	QC	5.75e02	5.50e+02	95.652	% Recovery
2	CCV			0	@IC-QC	NO3	QC	6.14e02	5.72e+02	93.160	% Recovery
2	CCV			0	@IC-QC	PO4	QC	5.46e02	5.24e+02	95.971	% Recovery
2	CCV			0	@IC-QC	SO4	QC	6.31e02	6.03e+02	95.563	% Recovery
2	CCV			0	@IC-QC	OXALATE2	QC	5.15e02	5.00e+02	97.087	% Recovery
3	BLNK-PREP			0	@IC-01	F-02	SOLID	1	<1.30e-2		ug/g
3	BLNK-PREP			0	@IC-01	CL-02	SOLID	1	<1.70e-2		ug/g
3	BLNK-PREP			0	@IC-01	NO2-02	SOLID	1	<1.07e-1		ug/g
3	BLNK-PREP			0	@IC-01	BR-02	SOLID	1	<1.26e-1		ug/g
3	BLNK-PREP			0	@IC-01	NO3-02	SOLID	1	<1.40e-1		ug/g
3	BLNK-PREP			0	@IC-01	PO4-02	SOLID	1	<1.19e-1		ug/g
3	BLNK-PREP			0	@IC-01	SO4-02	SOLID	1	<1.36e-1		ug/g
3	BLNK-PREP			0	@IC-01	OXALATE2	SOLID	1	<1.05e-1		ug/g
4	SAMPLE	S96T001543	W	0	@IC-01	OXALATE2	SOLID	N/A	5.363e+04	45050.000	ug/g
5	DUP	S96T001543	W	0	@IC-01	OXALATE2	SOLID	5.36e+04	5.21e+04	2.838	RPD
6	SPK	S96T001543	W	0	@IC-01	OXALATE2	SOLID	5.15e02	5.10e+02	99.029	% Recovery
7	SAMPLE	S96T001565	W	0	@IC-01	OXALATE2	SOLID	N/A <	4.378e+04	43780.000	ug/g
8	DUP	S96T001565	W	0	@IC-01	OXALATE2	SOLID	<4.38e4	9.23e+04		RPD
9	SPK	S96T001565	W	0	@IC-01	OXALATE2	SOLID	5.15e02	5.08e+02	98.641	% Recovery

Comments Section:

Comments for sample# S96T001565 **and test** @IC-01 .
Sample dup rpd very poor probably due to inhomogeneity.jmf

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8991

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit

Final page for worklist# 8991

Analyst Signature Date

Analyst Signature Date

Joel Smith 5/21/96
Reviewer Signature Date

Validated JMF

DATA NOT USED IN PACKAGE

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 8991

Analyst: JLF **Instrument:** IC00 ICW1 **Book#** 1316N9-A

Method: LA-533-105 Rev/Mod D-1

Worklist Comment: C-106 rerun oxalate, try 2121 df. jmf

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	CCB				@IC-QC	QC		
2	CCV				@IC-QC	QC		
3	BLNK-PREP				@IC-01	SOLID		
4	SAMPLE	S96T001543	0	W	@IC-01	SOLID	96000082	C-106 GRAB
	Analytes Requested: OXALATE2							
5	DUP	S96T001543	0	W	@IC-01	SOLID		
6	SPK	S96T001543	0	W	@IC-01	SOLID		
7	SAMPLE	S96T001565	0	W	@IC-01	SOLID	96000174	C-106 GRAB
	Analytes Requested: OXALATE2							
8	DUP	S96T001565	0	W	@IC-01	SOLID		
9	SPK	S96T001565	0	W	@IC-01	SOLID		

Final page for worklist # 8991

Joel Smith for JLF 5/20/96

Analyst Signature **Date**

Analyst Signature **Date**

Exported
In Shell 5/21/96
Uploaded 5/21/96
Validated 5/21/96 JMF

Data Entry Comments:

DATA NOT USED IN PACKAGE

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Data Reprocessed On 05/21/1996 08:35:48

Sample Name: BLANK Date: 05/20/1996 19:09:31
Data File : C:\DX\DATA\96052021.d11
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11 Detector:CDM-1
Analyst : Jason Fuge Column: AG4A/AS4A anion column

5/21/96

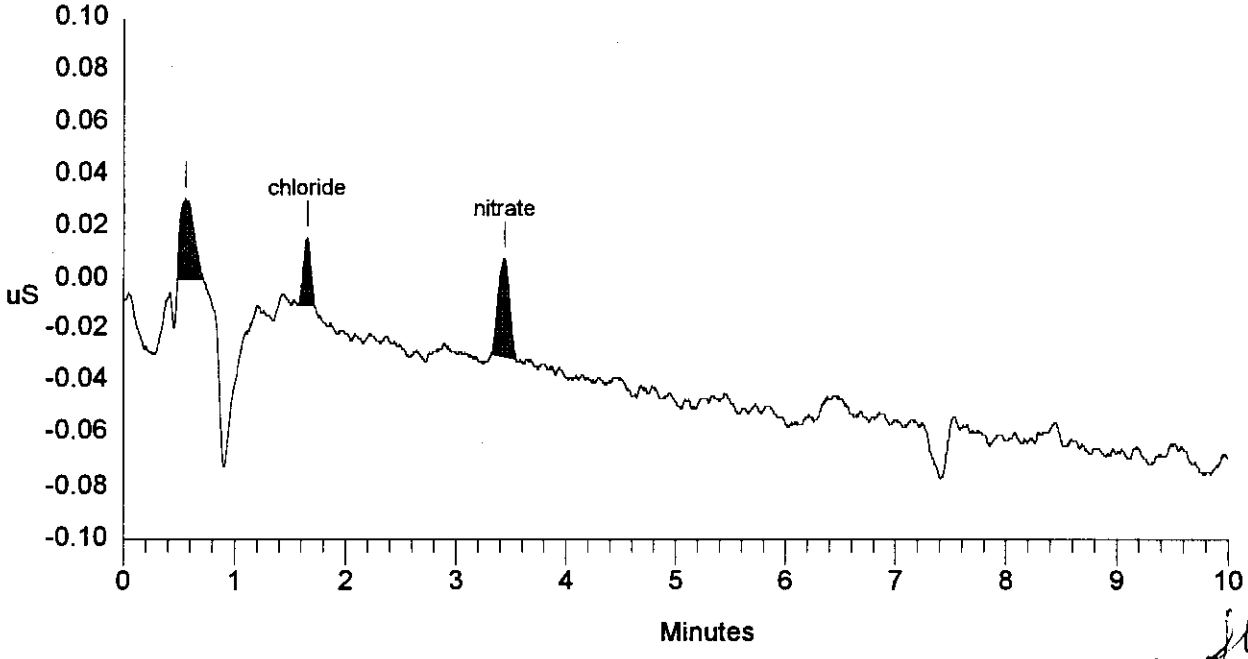
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.56		0.000	31	262	1	
2	1.65	chloride	0.009	26	116	1	0.00
3	3.44	nitrate	0.162	38	266	1	3.82
		Totals	0.171	95	645		

WHC-SD-WM-DP-183, REV. 0

File: 96052021.d11 Sample: BLANK



JAW 7/18/96

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____TO ____.

DATA NOT USED IN PACKAGE

Data Reprocessed On 05/21/1996 08:35:50

Sample Name: 133N9-A STD Date: 05/20/1996 19:55:06
Data File : C:\DX\DATA\96052021.d12
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

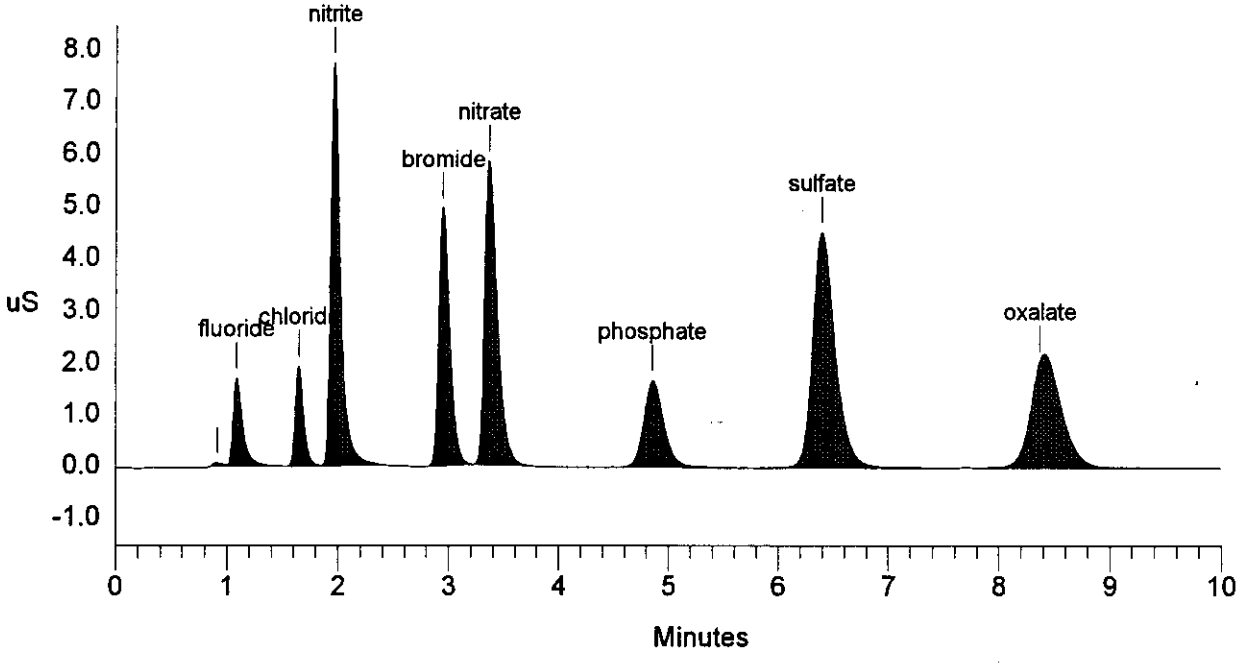
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	101	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	53	278	2	
2	1.09	fluoride	56.047	1700	10010	2	1.88
3	1.65	chloride	74.324	1936	9909	1	-0.40
4	1.97	nitrite	510.876	7736	47415	1	-2.32
5	2.95	bromide	549.534	4955	34249	1	-0.45
6	3.37	nitrate	572.261	5850	46731	1	1.61
7	4.85	phosphate	524.046	1680	21362	1	-1.62
8	6.40	sulfate	603.086	4540	64428	1	-1.64
9	8.37	oxalate	500.236	2067	41841	1	-1.87
		Totals	3390.410	30517	276223		

WHC-SD-WM-DP-183, REV. 0

File: 96052021.d12 Sample: 133N9-A STD



DATA NOT USED IN PACKAGE

Data Reprocessed On 05/21/1996 08:35:52

Sample Name: BLANK PREP Date: 05/20/1996 20:16:06
Data File : C:\DX\DATA\96052021.d13
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 13 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

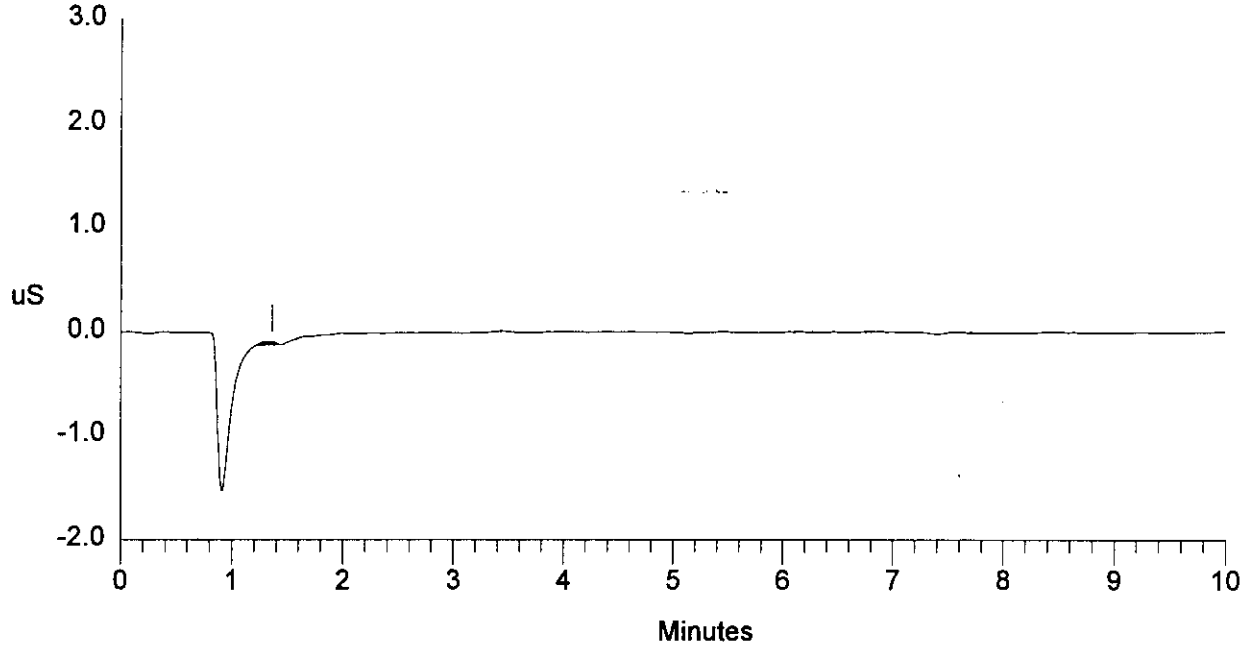
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.36		0.000	38	318	1	
		Totals	0.000	38	318		

WHC-SD-WM-DP-183, REV. 0

File: 96052021.d13 Sample: BLANK PREP



DATA NOT USED IN PACKAGE

Data Reprocessed On 05/21/1996 08:35:54

Sample Name: S96T001543 SAM Date: 05/21/1996 01:10:02
Data File : C:\DX\DATA\96052121.d02
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

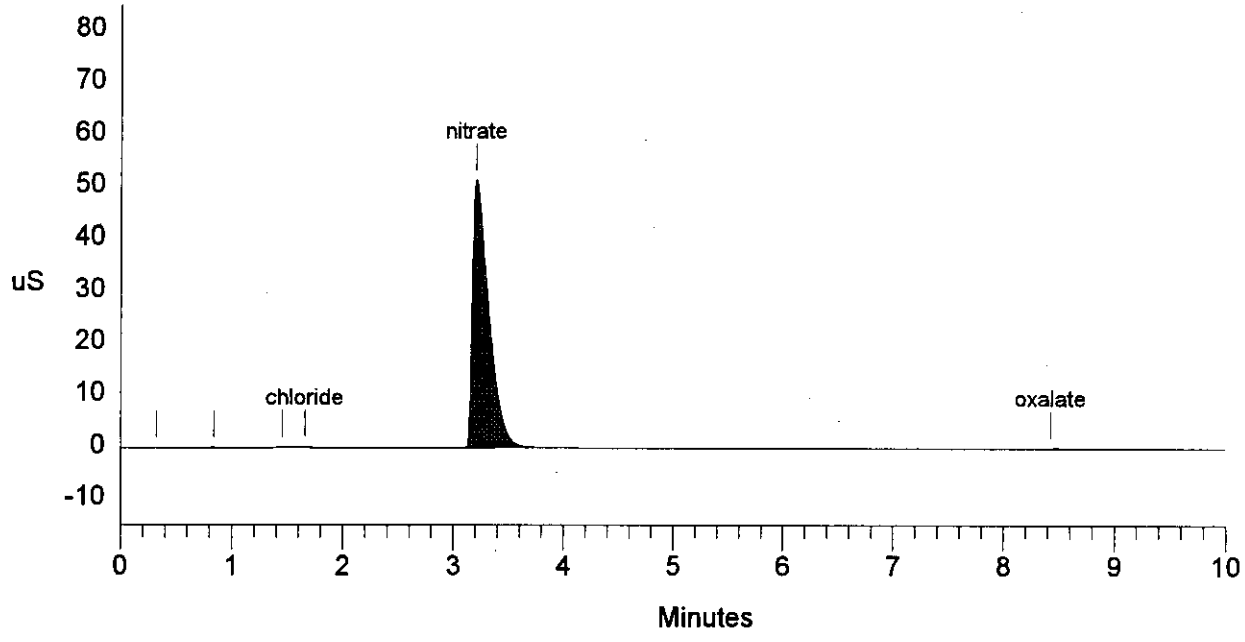
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.32		0.000	17	161	1	
3	1.45		0.000	52	304	1	
4	1.66	chloride	99.595	132	623	1	0.40
5	3.21	nitrate	113594.372	51209	526068	1	-3.22
6	8.43	oxalate	265.093	32	611	1	-1.25
		Totals	113959.059	51441	527767		

File: 96052121.d02 Sample: S96T001543 SAM

WHC-SD-WM-DP-183, REV. 0



DATA NOT USED IN PACKAGE

Data Reprocessed On 05/21/1996 08:35:56

Sample Name: S96T001543 DUP Date: 05/21/1996 01:21:50
Data File : C:\DX\DATA\96052121.d03
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 3 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

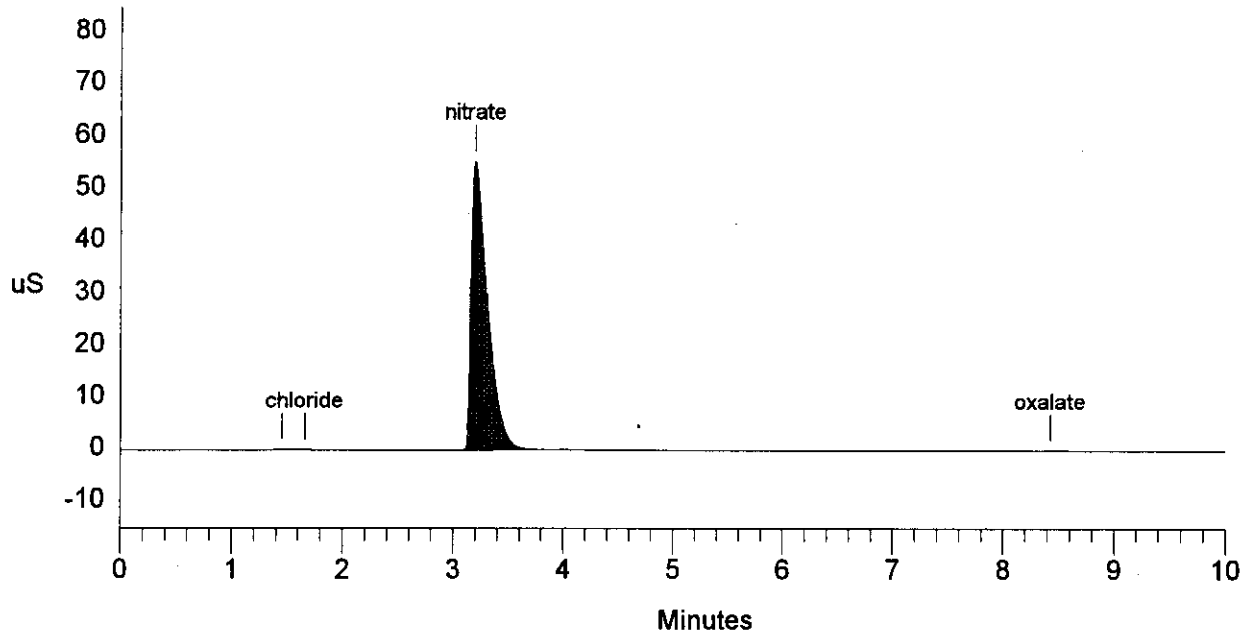
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.45		0.000	70	458	1	
2	1.66	chloride	20.145	29	124	1	0.40
3	3.20	nitrate	121764.196	55321	573429	1	-3.42
4	8.43	oxalate	257.783	30	582	1	-1.25
		Totals	122042.124	55450	574592		

File: 96052121.d03 Sample: S96T001543 DUP

WHC-SD-WM-DP-183, REV. 0



DATA NOT USED IN PACKAGE

Data Reprocessed On 05/21/1996 08:35:58

Sample Name: S96T001543 SPIKE Date: 05/21/1996 01:50:41
Data File : C:\DX\DATA\96052121.d04
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 4 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

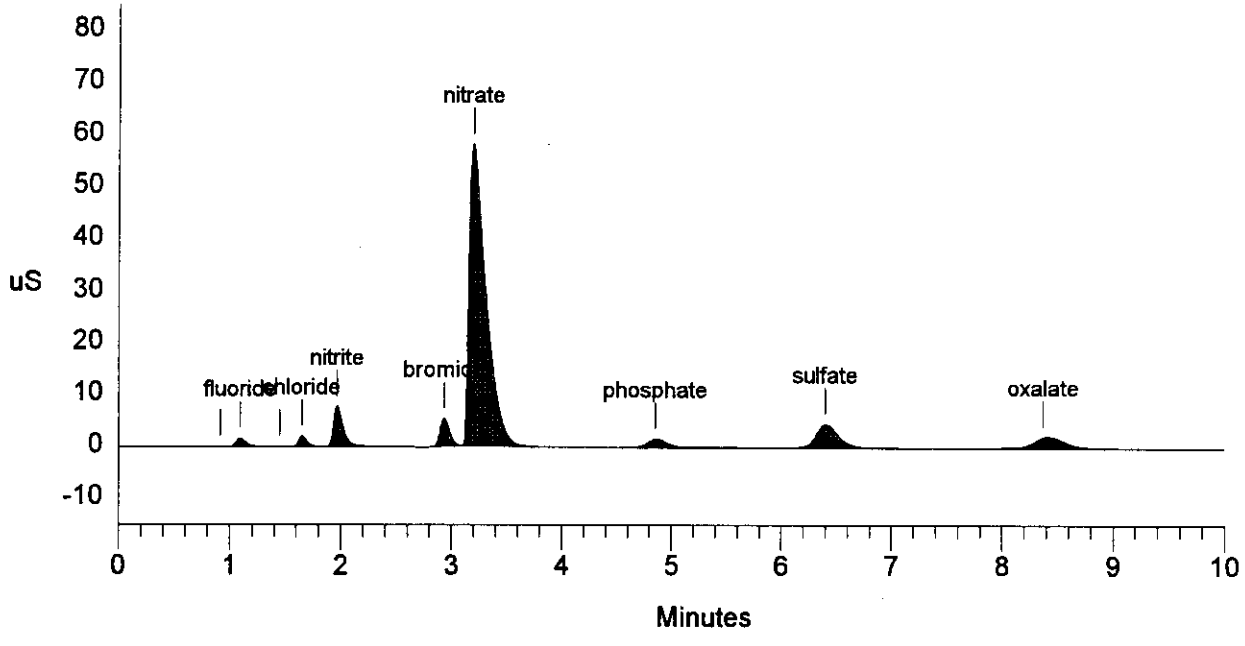
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	58	277	1	
2	1.09	fluoride	1151.023	1672	9778	2	2.50
3	1.45		0.000	66	425	2	
4	1.65	chloride	1570.185	2054	9969	1	-0.40
5	1.97	nitrite	10638.616	7760	47006	1	-2.32
6	2.93	bromide	10765.802	5355	31871	1	-0.90
7	3.20	nitrate	128288.441	58156	612727	1	-3.42
8	4.85	phosphate	10542.126	1539	20443	1	-1.62
9	6.40	sulfate	12467.416	4454	63395	1	-1.64
10	8.37	oxalate	10571.504	2044	42111	1	-1.87
		Totals	185995.113	83159	838002		

File: 96052121.d04 Sample: S96T001543 SPIKE

WHC-SD-WM-DP-183, REV. 0



DATA
NOT USED
IN PACKAGE

Data Reprocessed On 05/21/1996 08:36:00

Sample Name: S96T001565 SAM Date: 05/21/1996 02:16:22
Data File : C:\DX\DATA\96052121.d05
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 5 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

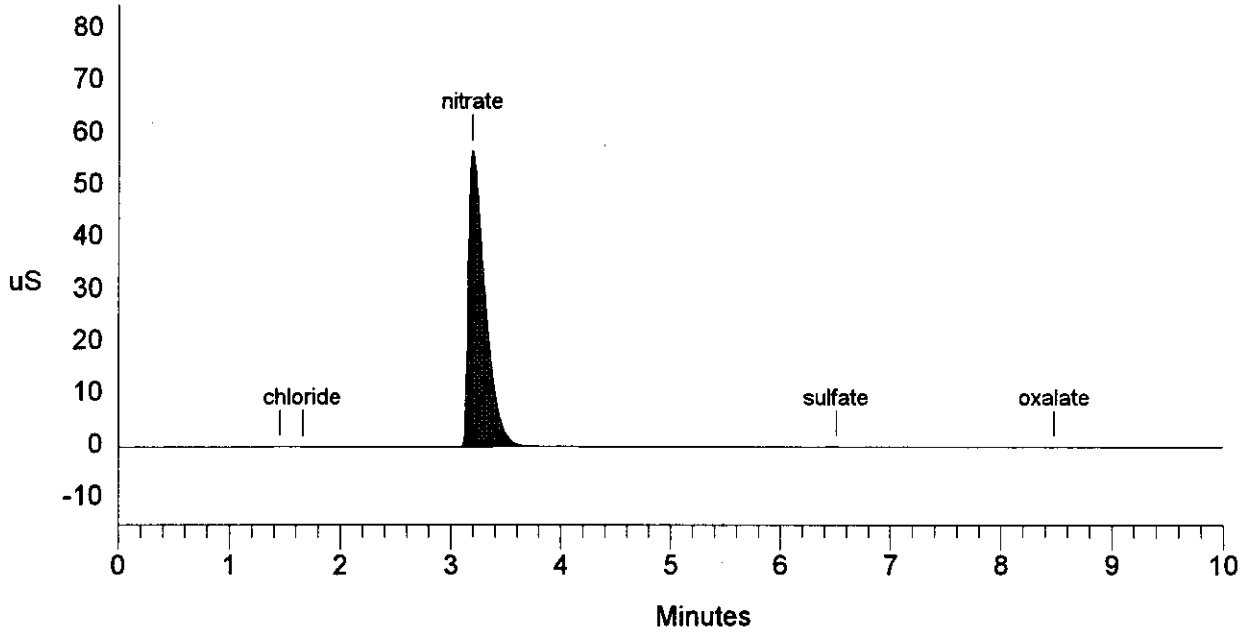
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.45		0.000	79	495	1	
2	1.66	chloride	28.806	41	179	1	0.40
3	3.19	nitrate	126162.569	56824	599768	1	-3.62
4	6.51	sulfate	213.985	27	421	1	0.00
5	8.48	oxalate	191.795	16	318	1	-0.62
		Totals	126597.154	56986	601181		

File: 96052121.d05 Sample: S96T001565 SAM

WHC-SD-WM-DP-183, REV. 0



DATA
NOT USED
IN PACKAGE

Data Reprocessed On 05/21/1996 08:36:02

Sample Name: S96T001565 DUP	Date: 05/21/1996 02:28:16
Data File : C:\DX\DATA\96052121.d06	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 6	Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column	

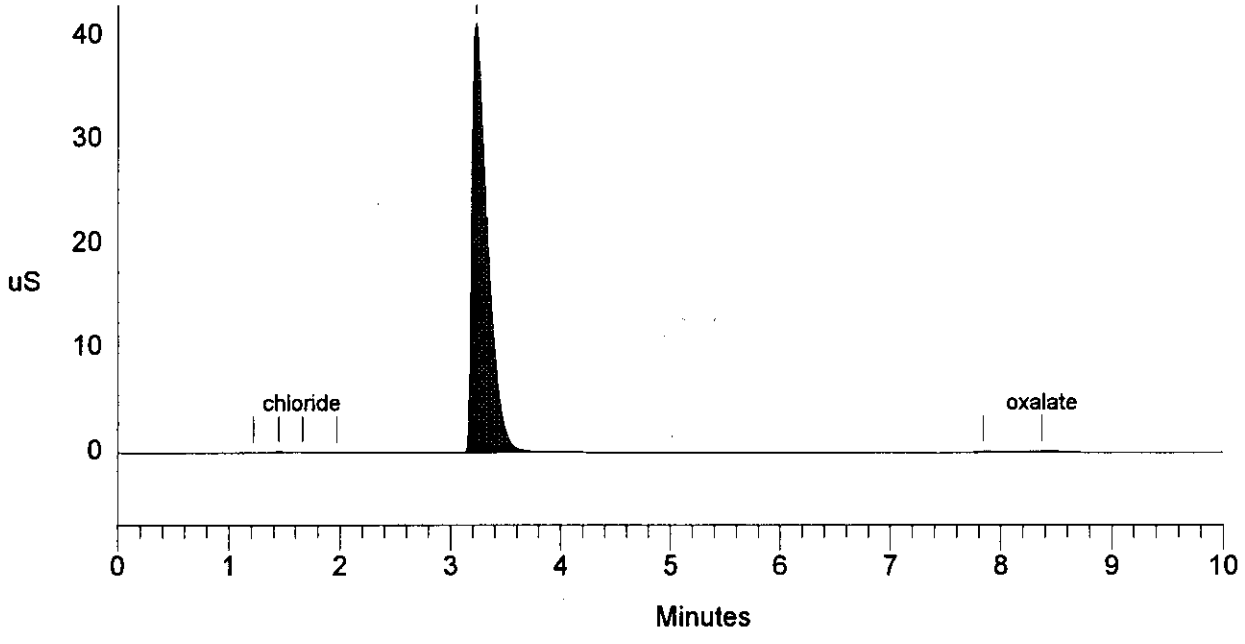
Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.45		0.000	83	571	1	
3	1.66	chloride	39.347	52	245	1	0.40
5	3.23	nitrate	90552.686	41125	401752	1	-2.41
6	7.84		0.000	90	1017	1	
7	8.37	oxalate	454.757	68	1369	1	-1.87
		Totals	91046.790	41418	404954		

WHC-SD-WM-DP-183, REV. 0

File: 96052121.d06 Sample: S96T001565 DUP



DATA
NOT USED
IN PACKAGE

Data Reprocessed On 05/21/1996 08:36:04

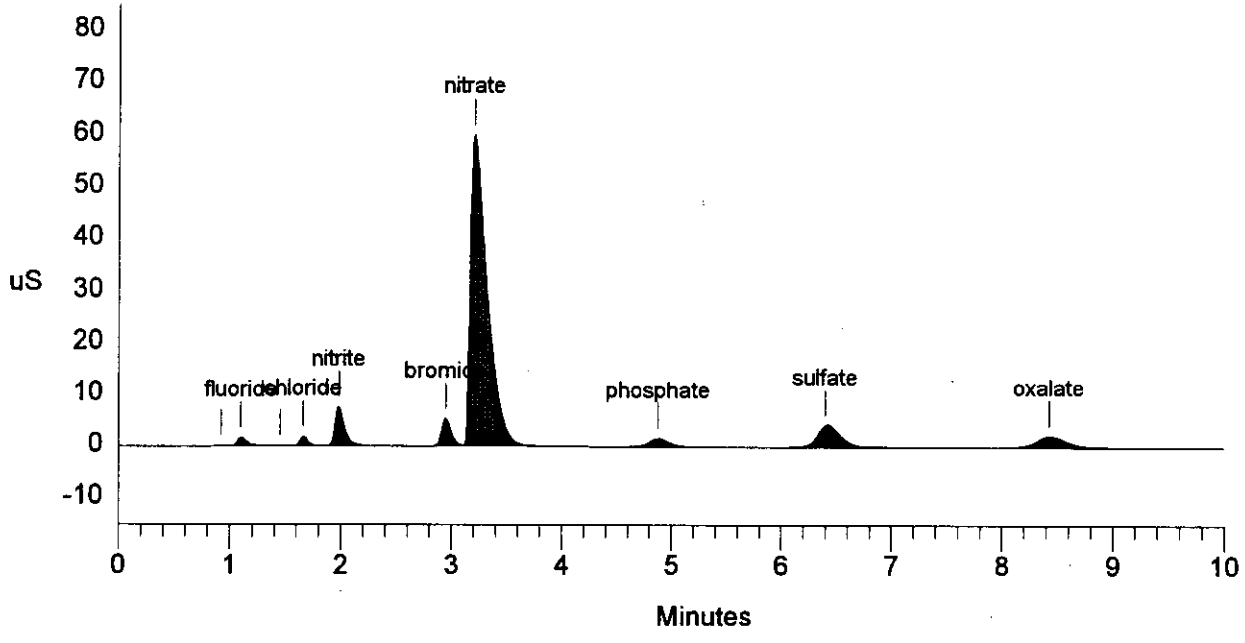
Sample Name: S96T001565 SPIKE Date: 05/21/1996 02:39:19
Data File : C:\DX\DATA\96052121.d07
Method : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7 Detector:CDM-1
Analyst : Column: AG4A/AS4A anion column

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	2121	3000	5Hz	0.00	10.00	100

********** Peak Report: All Peaks **********

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.92		0.000	58	288	1	
2	1.10	fluoride	1137.128	1650	9654	2	3.13
3	1.45		0.000	76	469	2	
4	1.66	chloride	1435.815	1883	9105	1	0.40
5	1.98	nitrite	10533.488	7656	46528	1	-1.66
6	2.95	bromide	10657.235	5288	31538	1	-0.45
7	3.21	nitrate	131590.264	59860	633166	1	-3.22
8	4.88	phosphate	10557.041	1564	20473	1	-1.08
9	6.40	sulfate	12372.800	4170	62900	1	-1.64
10	8.43	oxalate	10258.313	2147	40840	1	-1.25
		Totals	188542.084	84351	854961		

File: 96052121.d07 Sample: S96T001565 SPIKE **WHC-SD-WM-DP-183, REV. 0**



DATA NOT USED IN PACKAGE

LABCORE Data Entry Template for Worklist# 6115

Analyst: JK Sato **Instrument:** ICP01-3 3-13-96 **Book#** 318489

Method: LA-505-151/161 Rev/Mod JR BO 3-13-96

Worklist Comment: ICP C-106 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	SERDIL	S96T000538	0	D	@ICP-D01	LIQUID		
6	SAMPLE	S96T000538	0	D	@ICP-D01	LIQUID	96000082	C-106 GRAB

Analytes Requested: AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01

7	DUP	S96T000538	0	D	@ICP-D01	LIQUID		
8	SPK	S96T000538	0	D	@ICP-D01	LIQUID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SERDIL	S96T001023	0	D	@ICP-D01	LIQUID		
12	SAMPLE	S96T001023	0	D	@ICP-D01	LIQUID	96000174	C-106 GRAB

Analytes Requested: AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 6115

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
13	DUP	S96T001023	0	D	@ICP-D01	LIQUID		
14	SPK	S96T001023	0	D	@ICP-D01	LIQUID		
15	~~CCV~~	SP 3/14/96			@ICP-QC	QC		
16	~~CCB~~	SP 3/14/96			@ICP-QC	QC		
17	ICSA				@ICP-QC	QC		
18	ICSAB				@ICP-QC	QC		
19	CCV				@ICP-QC	QC		
20	CCB				@ICP-QC	QC		

Final page for worklist # 6115

JK [illegible] 03-13-96
Analyst Signature Date

Reviewed by: Gail M. Parry 3/14/96
Analyst Signature Date

S96T000538_L, .025-10-28, DF 2003
S96T000538 .025-10 401
S96T000538_D .025-10 401
S96T000538_a .025-10 401, .025 ml sample + 2 ml SSTS + 8 ml HNO_3

S96T001023_L, .025-15-28, DF 3003
S96T001023 .025-15 601
S96T001023_D .025-15 601
S96T001023_a .025-15 601, .025 ml sample + 3 ml + 12 ml HNO_3

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	960313A	ICP2	03/13/96	10:05	DKS	Q	CONC
2	ICB	960313A	ICP2	03/13/96	10:08	DKS	Q	CONC
3	ICSA	960313A	ICP2	03/13/96	10:11	DKS	Q	CONC
4	ICSAB	960313A	ICP2	03/13/96	10:17	DKS	Q	CONC
5	S96T000538_L	960313A	ICP2	03/13/96	10:21	DKS	S	CONC
6	S96T000538	960313A	ICP2	03/13/96	10:24	DKS	S	CONC
7	S96T000538_D	960313A	ICP2	03/13/96	10:27	DKS	S	CONC
8	S96T000538_A	960313A	ICP2	03/13/96	10:31	DKS	S	CONC
9	CCV	960313A	ICP2	03/13/96	10:35	DKS	Q	CONC
10	CCB	960313A	ICP2	03/13/96	10:38	DKS	Q	CONC
11	S96T001023_L	960313A	ICP2	03/13/96	10:42	DKS	S	CONC
12	S96T001023	960313A	ICP2	03/13/96	10:45	DKS	S	CONC
13	S96T001023_D	960313A	ICP2	03/13/96	10:49	DKS	S	CONC
14	S96T001023_A	960313A	ICP2	03/13/96	10:53	DKS	S	CONC
15	ICSA	960313A	ICP2	03/13/96	10:58	DKS	Q	CONC
16	ICSAB	960313A	ICP2	03/13/96	11:01	DKS	Q	CONC
17	CCV_1	960313A	ICP2	03/13/96	11:05	DKS	Q	CONC
18	CCB_1	960313A	ICP2	03/13/96	11:08	DKS	Q	CONC

WHC-SD-WM-DP-183, REV. 0

DK [illegible]

03-13-96

Q-106 S96T000538

S96T001023

Worklist #6115

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 725 TO 728.

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	5.045	4.920	5.188	5.015	5.126	5.204
2	ICB	.0010	-.0012	.0147	.0081	.0002	-.0001
3	ICSA	.0017	239.8	-.0614	-.0010	.0026	.0002
4	ICSAB	.9816	239.1	-.0814	.0032	.4943	.4866
5	S96T000538_L	9.742	-3.589	-13.18	3.788	.5972	-.6003
6	S96T000538	11.19	1.387	-16.99	11.65	.4239	-.0815
7	S96T000538_D	9.691	-.8030	-9.369	10.43	.3610	-.1081
8	S96T000538_A	332.7	391.2	405.4	407.9	396.3	408.2
9	CCV	5.019	4.917	5.153	5.044	5.042	5.164
10	CCB	.0001	.0029	.0155	.0056	.0001	-.0000
11	S96T001023_L	9.816	1.047	20.56	10.55	.3856	-.0650
12	S96T001023	9.208	2.405	-3.010	9.255	.3789	-.0428
13	S96T001023_D	9.916	1.901	-3.973	10.78	.5244	-.0834
14	S96T001023_A	533.6	578.1	605.3	592.2	576.5	599.3
15	ICSA	.0012	235.4	-.0597	.0074	.0025	.0002
16	ICSAB	.9667	235.8	-.0334	.0027	.4757	.4781
17	CCV_1	4.928	4.837	5.108	4.986	4.899	5.092
18	CCB_1	-.0004	-.0017	.0111	.0009	.0002	-.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.087	5.206	5.141	5.284	5.174	5.200
2	ICB	.0235	.0010	.0011	.0088	-.0025	.0000
3	ICSA	-.0027	253.9	.0001	.0204	-.0013	.0010
4	ICSAB	-.0022	255.3	.9703	.0201	.4799	.4927
5	S96T000538_L	-29.89	6.629	-.6840	14.13	-1.413	1.464
6	S96T000538	6.832	1.197	.7322	4.685	-.0236	.5367
7	S96T000538_D	9.985	-.5808	.7795	3.409	-1.167	.5181
8	S96T000538_A	405.3	423.2	408.9	421.6	409.5	413.5
9	CCV	5.098	5.184	5.042	5.201	5.097	5.128
10	CCB	.0065	-.0014	.0014	.0038	-.0013	.0012
11	S96T001023_L	84.86	-5.737	1.573	8.693	-7.808	-.8571
12	S96T001023	18.42	3.479	.7047	3.550	.1933	1.404
13	S96T001023_D	3.425	.5578	.8645	6.476	-.8862	.3086
14	S96T001023_A	617.9	615.0	595.4	613.7	600.7	603.3
15	ICSA	.0047	247.8	.0000	.0129	-.0011	.0015
16	ICSAB	.0100	248.7	.9450	.0242	.4645	.4809
17	CCV_1	4.990	5.072	4.929	5.044	4.991	5.012
18	CCB_1	-.0033	.0001	.0008	.0099	-.0014	.0007

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	5.212	-.0009	5.164	5.169	5.176	4.977
2	ICB	-.0003	.0013	.0004	.1759	.0020	.0017
3	ICSA	-.0121	-.0344	97.48	.3558	-.0042	.0036
4	ICSAB	.4872	-.0364	97.45	.2619	-.0044	.9648
5	S96T000538_L	1.306	2.680	-7.688	759.9	2.460	3.557
6	S96T000538	2.324	-.1521	1.995	809.5	.8923	.6774
7	S96T000538_D	1.182	-.5674	1.145	657.7	.7706	.5000
8	S96T000538_A	400.0	-.0134	411.0	1079.	406.3	392.9
9	CCV	5.199	-.0019	5.112	4.980	5.089	5.039

#	Sample Name	Cu	Eu	Fe	K	La	Li
10	CCB	.0015	.0004	.0005	.1782	.0003	.0002
11	S96T001023_L	1.874	-1.276	-9.706	715.3	3.116	-1.110
12	S96T001023_	.9867	-.3436	-1.102	693.9	.6009	.5376
13	S96T001023_D	1.060	.0633	-1.125	787.9	1.376	1.091
14	S96T001023_A	580.1	-.0738	598.4	1342.	589.3	583.5
15	ICSA	-.0112	-.0330	94.92	.4021	-.0031	.0038
16	ICSAB	.4797	-.0309	95.02	.3002	-.0026	.9657
17	CCV_1	5.126	-.0012	4.997	4.821	4.947	5.008
18	CCB_1	.0004	.0008	.0007	.2464	.0012	.0009

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.875	5.026	5.189	4.996	5.257	5.085
2	ICB	.0042	.0004	.0005	.0127	.0023	.0015
3	ICSA	244.1	-.0068	-.0133	197.9	.0042	-.0029
4	ICSAB	243.5	.4577	-.0141	197.6	.0073	.9450
5	S96T000538_L	16.81	2.402	24.83	106400.	7.559	34.80
6	S96T000538_	-4.815	1.780	29.27	107100.	3.120	18.42
7	S96T000538_D	-7.037	1.290	24.97	96840.	2.830	15.74
8	S96T000538_A	380.3	394.2	436.8	88450.	415.0	420.2
9	CCV	4.856	4.956	5.125	4.995	5.191	5.094
10	CCB	.0156	.0003	-.0028	.0042	.0050	.0061
11	S96T001023_L	-2.433	1.118	10.21	108900.	1.579	22.72
12	S96T001023_	-3.374	1.301	22.54	107700.	3.657	14.00
13	S96T001023_D	-2.269	1.222	20.35	104400.	2.814	14.71
14	S96T001023_A	572.2	570.3	625.4	100200.	602.7	608.9
15	ICSA	240.6	-.0068	-.0150	194.8	.0056	-.0084
16	ICSAB	240.9	.4452	-.0121	195.3	.0074	.9367
17	CCV_1	4.789	4.845	5.019	4.928	5.037	4.932
18	CCB_1	.0020	.0002	-.0036	.0089	.0032	.0031

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.107	5.098	4.938	4.896	4.915	4.947
2	ICB	.0009	.0117	-.0097	.0050	.0238	.0099
3	ICSA	.0161	.0423	-.0511	.0098	-.0592	.0044
4	ICSAB	.0101	1.053	-.0523	.0019	-.0307	.0084
5	S96T000538_L	319.8	7.175	2998.	-3.306	34.33	67.50
6	S96T000538_	323.7	16.56	3056.	4.532	6.637	26.19
7	S96T000538_D	299.7	15.98	2709.	4.144	26.31	23.00
8	S96T000538_A	686.0	421.8	2912.	393.9	407.9	421.2
9	CCV	5.087	5.024	4.937	4.827	4.905	4.902
10	CCB	-.0074	.0162	.0008	.0063	.0259	.0033
11	S96T001023_L	223.9	83.37	2416.	4.940	36.27	109.0
12	S96T001023_	253.1	41.57	2490.	-2.361	16.39	23.29
13	S96T001023_D	247.2	21.37	2453.	2.007	7.553	18.73
14	S96T001023_A	838.6	617.2	2915.	584.5	599.1	602.3
15	ICSA	.0076	.0500	-.0385	.0124	-.0335	.0075
16	ICSAB	.0252	1.016	-.0272	.0128	-.0496	.0040
17	CCV_1	5.041	4.897	4.902	4.768	4.821	4.820
18	CCB_1	-.0177	.0038	-.0084	.0102	.0131	.0040

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.021	5.091	.0174	5.024	4.948	9.919
2	ICB	.0176	.0003	-.0020	-.0000	.0175	.0731
3	ICSA	.0130	-.0024	.0239	.0014	-.0083	.1597
4	ICSAB	.0120	-.0024	.0180	.0021	-.0261	.1563
5	S96T000538_L	39.22	.3490	159.2	.6434	38.25	1982.
6	S96T000538	7.072	.1072	172.8	.2366	-10.10	1875.
7	S96T000538_D	.9370	.0749	154.3	.3000	1.078	1767.
8	S96T000538_A	395.6	398.2	146.9	395.5	392.4	2331.
9	CCV	4.930	5.024	.0198	4.959	4.919	9.828
10	CCB	.0059	.0001	.0048	.0014	.0334	.0375
11	S96T001023_L	-12.60	-.1307	157.9	1.285	11.95	1487.
12	S96T001023	1.104	.0576	136.7	.3719	9.766	1484.
13	S96T001023_D	8.402	.0955	131.1	.2561	22.57	1411.
14	S96T001023_A	577.7	580.4	132.5	579.3	581.4	2495.
15	ICSA	.0122	-.0023	.0118	.0023	-.0187	.1748
16	ICSAB	.0092	-.0023	.0184	.0019	.0143	.1629
17	CCV_1	4.808	4.899	.0236	4.854	4.759	9.554
18	CCB_1	.0081	.0001	.0016	.0002	.0107	.0458

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.169	.0068	5.082	5.101
2	ICB	.0032	.0009	.0004	.0024
3	ICSA	.0014	.0079	-.0012	-.0027
4	ICSAB	.4820	.0078	.9820	-.0024
5	S96T000538_L	8.373	9.534	4.546	443.1
6	S96T000538	1.727	8.164	5.089	445.1
7	S96T000538_D	.7703	7.172	4.053	404.4
8	S96T000538_A	411.3	7.436	413.5	777.2
9	CCV	5.108	.0066	5.052	5.013
10	CCB	.0013	.0001	-.0000	.0006
11	S96T001023_L	.0877	5.730	7.928	340.4
12	S96T001023	1.080	6.061	5.540	343.8
13	S96T001023_D	1.866	6.186	4.394	332.7
14	S96T001023_A	598.6	6.715	606.1	903.2
15	ICSA	.0007	.0077	-.0001	-.0023
16	ICSAB	.4692	.0076	.9663	-.0029
17	CCV_1	4.998	.0061	4.969	4.887
18	CCB_1	.0015	.0004	-.0003	.0008

WHC-SD-WM-DP-183, REV. 0

JK Lad
03-13-96

File #: 960318B.DAT

LABCORE Data Entry Template for Worklist# 6580

Analyst: JK Sato **Instrument:** ICP01 **Book#** 51B48a

Method: LA-505-151/161 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	SERDIL	S96T000855	0	D	@ICP-D01	LIQUID		
6	SAMPLE	S96T000855	0	D	@ICP-D01	LIQUID	96000082	C-106 GRAB
		Analytes Requested:			AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			
7	DUP	S96T000855	0	D	@ICP-D01	LIQUID		
8	SPK	S96T000855	0	D	@ICP-D01	LIQUID		
9	ICSA				@ICP-QC	QC		
10	ICSAB				@ICP-QC	QC		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		

Final page for worklist # 6580

JK Sato 03-18-96
Analyst Signature **Date**

Reviewed by: Samuel M. Parvez 3/21/96
Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 6580

S Type	Sample#	R	A	Test	Matrix	Group#	Project
5947000855_L	1-4			JF5			
5947000855	direct			1			
5947000855_D	direct			1			
5947000855_a	direct			1,2,5, 4ml sample + 1ml SSTS			

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

File # 960318B.DAT WHC-SD-WM-DP-183, REV. 0

Identity 1: ICV Identity 2: Quality Control 1:26 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.930	4.908	4.937	4.755	4.894	5.057	4.985	4.916
S.D.	0.009	0.012	0.022	0.003	0.006	0.005	0.017	0.023
% R.S.D.	0.188	0.253	0.446	0.067	0.130	0.092	0.338	0.475

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.089	5.023	4.964	5.052	4.939	5.068	5.002	9.670
S.D.	0.003	0.008	0.018	0.024	0.015	0.014	0.036	0.008
% R.S.D.	0.060	0.151	0.366	0.477	0.306	0.279	0.716	0.078

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	4.960	4.951	4.922	5.018	4.952	4.891	5.085	4.872
S.D.	0.004	0.016	0.016	0.068	0.048	0.004	0.031	0.018
% R.S.D.	0.086	0.317	0.326	1.346	0.971	0.073	0.616	0.368

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.060	4.909	4.959	5.048	4.914	5.020	5.066	5.074
S.D.	0.005	0.033	0.007	0.025	0.011	0.006	0.014	0.026
% R.S.D.	0.099	0.669	0.143	0.494	0.226	0.116	0.284	0.507

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.044	4.714	5.067	5.122	4.854
S.D.	0.014	0.030	0.008	0.012	0.021
% R.S.D.	0.271	0.638	0.159	0.234	0.439

JK [signature]
03-18-96
C-106 5967000853
Worklist # 6580

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 731 TO 742.

Identity 1: ICB Identity 2: Quality Control 1:30 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	-0.000	0.005	0.003	-0.021	-0.000	0.001	-0.001
S.D.	0.001	0.000	0.006	0.002	0.008	0.003	0.000	0.000
% R.S.D.	39.464	86.603	110.594	53.246	40.459	15205.234	55.888	5.094

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	-0.000	0.004	0.002	0.001	-0.002	-0.016	0.156
S.D.	0.000	0.001	0.001	0.002	0.000	0.001	0.002	0.025
% R.S.D.	49.281	588.934	37.086	65.303	25.797	74.994	11.692	15.762

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.024	0.020	-0.001	0.024	-0.004	0.001	0.001	0.002
S.D.	0.010	0.002	0.000	0.013	0.002	0.000	0.004	0.005
% R.S.D.	41.666	8.711	9.993	52.848	35.889	18.330	647.122	346.309

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.000	-0.011	-0.002	0.004	0.001	-0.000	0.004	0.132
S.D.	0.001	0.007	0.000	0.011	0.001	0.000	0.000	0.007
% R.S.D.	152.721	63.854	25.051	282.069	56.998	177.685	7.408	5.087

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.000	-0.025	-0.002	0.001	-0.071
S.D.	0.000	0.032	0.001	0.000	0.010
% R.S.D.	0.875	127.750	38.754	36.540	13.458

Identity 1: ICSA Identity 2: Quality Control 1:33 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.008	0.003	-0.027	0.015	197.733	0.000	0.002	-0.001
S.D.	0.000	0.000	0.007	0.003	0.150	0.002	0.000	0.000
% R.S.D.	2.554	6.614	26.631	20.916	0.076	1245.268	0.089	14.760

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.003	0.005	0.006	100.129	102.500	-0.001	-0.007	0.026
S.D.	0.000	0.001	0.002	0.129	0.044	0.002	0.005	0.012
% R.S.D.	9.731	31.606	40.067	0.129	0.043	292.942	79.166	47.540

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.006	0.020	0.003	0.047	-0.036	101.241	0.038	192.182
S.D.	0.001	0.004	0.000	0.014	0.009	0.023	0.006	0.869
% R.S.D.	17.671	20.654	7.851	30.684	26.188	0.023	17.130	0.452

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.003	-0.011	0.002	-0.012	0.000	0.002	0.015	-0.016
S.D.	0.002	0.019	0.000	0.012	0.000	0.000	0.001	0.004
% R.S.D.	56.956	170.010	11.612	94.390	1.063	20.786	6.476	24.123

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.006	-0.000	0.000	0.003	-0.026
S.D.	0.001	0.025	0.000	0.000	0.009
% R.S.D.	9.448	17749.026	96.177	11.712	34.960

Identity 1: ICSAB Identity 2: Quality Control 1:36 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.004	0.002	-0.023	0.003	198.328	0.501	0.504	0.940
S.D.	0.000	0.000	0.009	0.002	0.304	0.004	0.000	0.004
% R.S.D.	12.586	3.125	39.171	54.829	0.153	0.705	0.054	0.470

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.001	0.981	0.002	98.918	101.210	0.503	-0.013	0.053
S.D.	0.003	0.005	0.001	0.232	0.317	0.005	0.008	0.019
% R.S.D.	0.340	0.519	35.629	0.235	0.313	1.014	59.643	36.566

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.011	0.021	0.510	0.024	-0.014	100.647	0.037	191.759
S.D.	0.005	0.006	0.002	0.010	0.002	0.297	0.005	0.800
% R.S.D.	41.550	26.639	0.333	41.604	16.414	0.296	13.450	0.417

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.002	-0.021	1.025	1.015	-0.001	1.008	0.014	0.049
S.D.	0.001	0.010	0.002	0.004	0.000	0.005	0.002	0.003
% R.S.D.	80.351	50.286	0.226	0.396	16.938	0.458	11.152	5.211

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.508	0.044	0.497	0.505	-0.006
S.D.	0.002	0.021	0.003	0.003	0.009
% R.S.D.	0.442	47.164	0.588	0.518	133.872

Identity 1: S96T000855_L Identity 2: 1-4 ml 1:41 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.011	0.006	0.072	0.731	0.394	-0.000	0.004	-0.007
S.D.	0.005	0.000	0.040	0.010	0.034	0.000	0.002	0.001
% R.S.D.	49.125	8.646	55.518	1.359	8.751	73.362	42.885	16.338

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.002	-0.004	0.011	0.133	6.878	-0.015	-0.070	0.352
S.D.	0.001	0.001	0.019	0.033	0.024	0.005	0.021	0.271
% R.S.D.	31.987	22.339	164.093	24.787	0.351	31.852	29.567	76.816

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.109	0.192	-0.001	2.313	0.303	0.222	0.027	18.619
S.D.	0.044	0.046	0.001	0.107	0.022	0.020	0.031	0.057
% R.S.D.	40.115	23.842	181.591	4.639	7.373	8.967	115.635	0.308

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.005	-0.230	-0.009	0.020	0.001	-0.001	0.003	0.882
S.D.	0.003	0.041	0.005	0.037	0.002	0.001	0.003	0.065
% R.S.D.	51.501	17.658	50.674	185.661	353.015	114.392	112.882	7.366

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.009	0.071	-0.015	0.002	-0.365
S.D.	0.001	0.097	0.005	0.000	0.117
% R.S.D.	16.500	136.963	34.995	1.816	32.021

Identity 1: S96T000855 Identity 2: Direct 1:44 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.000	0.006	-0.012	0.736	0.282	-0.006	-0.002	-0.001
S.D.	0.001	0.000	0.009	0.006	0.033	0.000	0.000	0.000
% R.S.D.	819.049	2.089	72.216	0.792	11.744	0.127	9.828	31.164

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.000	0.002	0.052	6.874	-0.002	-0.006	0.002
S.D.	0.000	0.003	0.001	0.020	0.124	0.000	0.008	0.060
% R.S.D.	24.417	750.505	33.884	38.909	1.804	20.566	125.503	3265.704

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.034	-0.012	-0.000	2.278	0.332	0.137	0.001	18.545
S.D.	0.015	0.009	0.000	0.026	0.008	0.018	0.002	0.181
% R.S.D.	44.173	77.055	141.559	1.120	2.286	13.494	314.136	0.974

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.040	-0.001	-0.027	-0.000	0.001	0.004	0.272
S.D.	0.000	0.013	0.001	0.006	0.001	0.001	0.000	0.012
% R.S.D.	16.366	32.181	108.151	21.014	131.212	73.047	13.969	4.596

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.010	-0.033	-0.003	-0.000	-0.035
S.D.	0.000	0.030	0.001	0.000	0.023
% R.S.D.	2.983	91.399	21.386	58.828	66.522

Identity 1: S96T000855_D Identity 2: Direct 1:47 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.000	0.007	0.008	0.717	0.262	-0.003	-0.000	-0.001
S.D.	0.001	0.000	0.003	0.002	0.015	0.003	0.000	0.000
% R.S.D.	361.008	2.015	43.438	0.331	5.667	100.039	148.609	43.499

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	-0.003	0.003	0.036	6.740	-0.000	0.015	-0.022
S.D.	0.001	0.002	0.002	0.001	0.029	0.002	0.005	0.073
% R.S.D.	113.109	67.590	75.953	1.480	0.427	438.129	31.967	325.971

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.011	-0.016	0.001	2.192	0.320	0.120	-0.000	18.270
S.D.	0.017	0.012	0.000	0.052	0.009	0.002	0.004	0.205
% R.S.D.	147.239	73.217	35.589	2.356	2.778	1.378	6048.945	1.121

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.002	-0.052	0.003	0.001	-0.001	-0.002	0.005	0.288
S.D.	0.000	0.006	0.001	0.009	0.000	0.000	0.001	0.009
% R.S.D.	12.385	12.368	42.919	585.671	19.292	27.264	16.265	3.090

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.010	-0.018	-0.000	-0.000	-0.022
S.D.	0.000	0.010	0.002	0.000	0.024
% R.S.D.	4.005	57.287	327.292	9382.144	111.065

Identity 1: S96T000855_A Identity 2: 4ml sample+1ml sst5 1:51 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.25
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	1.244	1.260	1.252	1.984	1.563	1.292	1.291	1.264
S.D.	0.006	0.012	0.007	0.007	0.011	0.006	0.017	0.031
% R.S.D.	0.497	0.959	0.574	0.356	0.700	0.452	1.309	2.438

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.308	1.284	1.267	1.325	8.157	1.281	1.264	2.326
S.D.	0.007	0.002	0.012	0.015	0.065	0.003	0.012	0.070
% R.S.D.	0.522	0.140	0.962	1.152	0.791	0.240	0.967	3.002

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	1.229	1.244	1.255	3.598	1.573	1.357	1.301	19.926
S.D.	0.011	0.006	0.013	0.034	0.008	0.005	0.011	0.411
% R.S.D.	0.933	0.482	1.068	0.932	0.492	0.347	0.866	2.064

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	1.280	1.275	1.062	1.315	1.245	1.283	1.290	1.610
S.D.	0.008	0.021	0.002	0.014	0.008	0.006	0.012	0.015
% R.S.D.	0.638	1.679	0.204	1.040	0.677	0.438	0.905	0.902

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.291	1.177	1.284	1.324	1.133
S.D.	0.005	0.013	0.008	0.013	0.065
% R.S.D.	0.396	1.067	0.614	0.983	5.745

Identity 1: ICSA Identity 2: Quality Control 1:57 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.011	0.002	-0.008	0.016	200.600	-0.003	0.003	-0.001
S.D.	0.001	0.000	0.016	0.003	0.695	0.002	0.000	0.000
% R.S.D.	8.594	1.786	205.416	19.705	0.346	59.600	10.426	49.843

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.003	0.005	0.010	100.642	102.678	-0.001	-0.009	0.150
S.D.	0.000	0.002	0.002	0.218	0.293	0.002	0.005	0.048
% R.S.D.	7.872	42.274	21.996	0.217	0.285	265.228	55.773	32.200

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.001	0.045	0.003	0.045	-0.019	102.641	0.035	193.353
S.D.	0.009	0.008	0.000	0.013	0.009	0.145	0.004	1.480
% R.S.D.	1687.630	17.753	5.423	29.181	46.076	0.141	12.699	0.765

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.045	0.001	-0.007	0.001	0.001	0.013	0.029
S.D.	0.001	0.017	0.001	0.019	0.000	0.001	0.001	0.015
% R.S.D.	79.374	36.745	64.670	279.294	28.808	96.859	7.039	53.192

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.005	0.019	-0.001	0.003	-0.038
S.D.	0.001	0.043	0.001	0.000	0.027
% R.S.D.	10.384	223.707	84.223	4.969	71.987

Identity 1: ICSAB Identity 2: Quality Control 2:00 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.002	-0.039	0.002	200.106	0.498	0.507	0.948
S.D.	0.001	0.000	0.010	0.003	0.226	0.002	0.000	0.002
% R.S.D.	31.334	1.903	25.940	139.612	0.113	0.354	0.061	0.201

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.010	0.985	0.001	99.777	101.790	0.510	-0.015	-0.061
S.D.	0.002	0.004	0.002	0.122	0.065	0.002	0.010	0.013
% R.S.D.	0.222	0.415	120.897	0.122	0.064	0.450	66.521	21.574

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.005	0.006	0.514	0.032	-0.025	101.396	0.041	193.663
S.D.	0.003	0.003	0.001	0.003	0.007	0.169	0.008	0.391
% R.S.D.	69.495	46.531	0.117	10.216	26.471	0.167	20.427	0.202

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.003	-0.006	1.032	1.027	-0.001	1.014	0.013	0.038
S.D.	0.001	0.014	0.000	0.015	0.000	0.004	0.000	0.006
% R.S.D.	42.544	232.915	0.016	1.442	31.645	0.407	3.395	15.558

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.512	-0.006	0.502	0.508	-0.044
S.D.	0.001	0.029	0.000	0.001	0.007
% R.S.D.	0.192	472.090	0.037	0.169	15.161

Identity 1: CCV Identity 2: Quality Control 2:05 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.915	4.896	4.925	4.732	4.933	5.034	4.986	4.951
S.D.	0.005	0.005	0.018	0.012	0.005	0.004	0.001	0.012
% R.S.D.	0.097	0.104	0.372	0.244	0.095	0.070	0.028	0.243

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.088	5.005	4.953	5.064	4.938	5.048	5.035	9.545
S.D.	0.005	0.011	0.004	0.004	0.001	0.011	0.016	0.025
% R.S.D.	0.097	0.229	0.074	0.082	0.017	0.218	0.325	0.261

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	4.932	4.942	4.912	5.043	4.966	4.897	5.075	4.963
S.D.	0.017	0.002	0.004	0.100	0.022	0.004	0.030	0.016
% R.S.D.	0.353	0.039	0.084	1.974	0.437	0.074	0.593	0.324

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.025	4.893	4.960	5.002	4.894	5.002	5.068	5.158
S.D.	0.005	0.039	0.001	0.016	0.006	0.013	0.003	0.048
% R.S.D.	0.094	0.798	0.020	0.327	0.115	0.264	0.062	0.928

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.023	4.773	5.056	5.110	4.804
S.D.	0.009	0.041	0.005	0.001	0.014
% R.S.D.	0.188	0.856	0.096	0.020	0.293

Identity 1: CCB Identity 2: Quality Control 2:08 PM March 18, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.005	0.002	0.008	0.007	0.008	-0.006	0.003	0.001
S.D.	0.003	0.004	0.003	0.002	0.021	0.003	0.004	0.004
% R.S.D.	49.195	176.150	33.657	31.606	268.918	49.862	102.169	515.311

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.002	-0.000	0.008	0.014	0.012	-0.004	-0.023	0.148
S.D.	0.003	0.003	0.004	0.013	0.013	0.004	0.007	0.012
% R.S.D.	158.811	534.800	41.605	91.216	108.670	97.107	29.008	7.940

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.028	0.017	0.002	0.019	-0.005	0.013	0.007	0.018
S.D.	0.002	0.003	0.004	0.007	0.004	0.013	0.005	0.023
% R.S.D.	6.220	18.047	202.983	37.528	69.415	105.455	73.128	123.308

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	-0.022	0.000	-0.007	0.003	0.004	0.005	0.043
S.D.	0.004	0.011	0.003	0.002	0.003	0.004	0.004	0.013
% R.S.D.	531.899	48.725	1139.434	23.764	108.564	99.733	80.891	29.407

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.002	0.032	-0.001	0.002	-0.059
S.D.	0.004	0.037	0.004	0.004	0.007
% R.S.D.	155.003	115.961	280.860	159.827	12.615

03-18-96

File # 960426A.DAT

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WHC-SD-WM-DP-183, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist# 6686

Analyst: B. GOECKE **Instrument:** ICP01 **Book#** 53B48A

Method: LA-505-151/~~161~~ 86 4-26-96 Rev/Mod D-3

Worklist Comment: ICP C-106 (SOLID ACID DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPSTDTJA				@ICP-A01	SOLID		
6	PREPBLKTJA				@ICP-A01	SOLID		
7	SERDIL	S96T000556	0	A	@ICP-A01	SOLID		
8	SAMPLE	S96T000556	0	A	@ICP-A01	SOLID	96000082	C-106 GRAB

Analytes Requested: AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 , MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SE-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
9	DUP	S96T000556	0	A	@ICP-A01	SOLID		
10	SPK-PREDIG	S96T000556	0	A	@ICP-A01	SOLID		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		
13	SERDIL	S96T000572	0	A	@ICP-A01	SOLID		
14	SAMPLE	S96T000572	0	A	@ICP-A01	SOLID	96000082	C-106 GRAB

Analytes Requested: AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 ,

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 6686

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
					MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SE-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01			
15	DUP	S96T000572	0	A	@ICP-A01	SOLID		
16	SPK-PREDIG	S96T000572	0	A	@ICP-A01	SOLID		
17	ICSA				@ICP-QC	QC		
18	ICSAB				@ICP-QC	QC		
19	CCV				@ICP-QC	QC		
20	CCB				@ICP-QC	QC		

Final page for worklist # 6686

[signature] 4-26-96
Analyst Signature Date

Reviewed by: [signature] 4/26/96
Analyst Signature Date

PREPSTD ARL	DIRECT	D.F.
PREPBLK ARL	DIRECT	1
		1
S96T000556-L	2nL-8nL-2nL-8nL	25
S96T000556	2nL-8nL	5
S96T000556-D	2nL-8nL	5
S96T000556-S	2nL-8nL	5
S96T000572-L	2nL-8nL-2nL-8nL	25
S96T000572	2nL-8nL	5
S96T000572-D	2nL-8nL	5
S96T000572-S	2nL-8nL	5

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 6686

Analyst: bjg **Instrument:** ICP01 **Book#** 53B48A

Method: LA-505-151 Rev/Mod D-3

Worklist Comment: ICP C-106 (SOLID ACID DIGEST)

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	ICV		0		●ICP-QC	AG	QC	5.0	4.95e+00	99.000 % Recovery
1	ICV		0		●ICP-QC	AL	QC	5.0	4.95e+00	99.000 % Recovery
1	ICV		0		●ICP-QC	AS	QC	5.0	5.13e+00	102.600 % Recovery
1	ICV		0		●ICP-QC	B	QC	5.0	5.08e+00	101.600 % Recovery
1	ICV		0		●ICP-QC	BA	QC	5.0	5.04e+00	100.800 % Recovery
1	ICV		0		●ICP-QC	BE	QC	5.0	5.21e+00	104.200 % Recovery
1	ICV		0		●ICP-QC	BI	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	CA	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	CD	QC	5.0	5.06e+00	101.200 % Recovery
1	ICV		0		●ICP-QC	CE	QC	5.0	5.10e+00	102.000 % Recovery
1	ICV		0		●ICP-QC	CO	QC	5.0	5.13e+00	102.600 % Recovery
1	ICV		0		●ICP-QC	CR	QC	5.0	5.10e+00	102.000 % Recovery
1	ICV		0		●ICP-QC	CU	QC	5.0	5.09e+00	101.800 % Recovery
1	ICV		0		●ICP-QC	FE	QC	5.0	5.05e+00	101.000 % Recovery
1	ICV		0		●ICP-QC	K	QC	5.0	4.97e+00	99.400 % Recovery
1	ICV		0		●ICP-QC	LA	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	LI	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	MG	QC	5.0	5.00e+00	100.000 % Recovery
1	ICV		0		●ICP-QC	MN	QC	5.0	5.07e+00	101.400 % Recovery
1	ICV		0		●ICP-QC	MO	QC	5.0	5.14e+00	102.800 % Recovery
1	ICV		0		●ICP-QC	NA	QC	5.0	4.96e+00	99.200 % Recovery
1	ICV		0		●ICP-QC	ND	QC	5.0	5.04e+00	100.800 % Recovery
1	ICV		0		●ICP-QC	NI	QC	5.0	5.05e+00	101.000 % Recovery
1	ICV		0		●ICP-QC	P	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	PB	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	S	QC	5.0	5.01e+00	100.200 % Recovery
1	ICV		0		●ICP-QC	SB	QC	5.0	4.68e+00	93.600 % Recovery
1	ICV		0		●ICP-QC	SE	QC	5.0	5.31e+00	106.200 % Recovery
1	ICV		0		●ICP-QC	SI	QC	5.0	4.84e+00	96.800 % Recovery
1	ICV		0		●ICP-QC	SM	QC	5.0	5.10e+00	102.000 % Recovery
1	ICV		0		●ICP-QC	SR	QC	5.0	5.03e+00	100.600 % Recovery
1	ICV		0		●ICP-QC	TI	QC	5.0	4.98e+00	99.600 % Recovery
1	ICV		0		●ICP-QC	TL	QC	5.0	4.85e+00	97.000 % Recovery
1	ICV		0		●ICP-QC	U	QC	10.0	9.64e+00	96.400 % Recovery
1	ICV		0		●ICP-QC	V	QC	5.0	5.12e+00	102.400 % Recovery
1	ICV		0		●ICP-QC	ZN	QC	5.0	5.12e+00	102.400 % Recovery
1	ICV		0		●ICP-QC	ZR	QC	5.0	4.99e+00	99.800 % Recovery
2	ICB		0		●ICP-QC	AG	QC	1	<1.00e-2	ug/g
2	ICB		0		●ICP-QC	AL	QC	1	<5.00e-2	ug/g
2	ICB		0		●ICP-QC	AS	QC	1	<1.00e-1	ug/g
2	ICB		0		●ICP-QC	B	QC	1	<5.00e-2	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
2	ICB		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
2	ICB		0	●ICP-QC	BI	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CA	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
2	ICB		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
2	ICB		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	FE	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
2	ICB		0	●ICP-QC	LA	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	LI	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	MG	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	MN	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	MO	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	NA	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	ND	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	NI	QC	1	<2.00e-2		ug/g
2	ICB		0	●ICP-QC	P	QC	1	<2.00e-1		ug/g
2	ICB		0	●ICP-QC	PB	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	S	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
2	ICB		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	TL	QC	1	<2.00e-1		ug/g
2	ICB		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
2	ICB		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	AG	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	AL	QC	200	1.97e+02	98.500	% Recovery
3	ICSA		0	●ICP-QC	AS	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	B	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
3	ICSA		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	CA	QC	100.	1.02e+02	102.000	% Recovery
3	ICSA		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
3	ICSA		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
3	ICSA		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	FE	QC	100.	9.51e+01	95.100	% Recovery
3	ICSA		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
3	ICSA		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
3	ICSA		0	●ICP-QC	LI	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	MG	QC	100.	9.56e+01	95.600	% Recovery
3	ICSA		0	●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	MO	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	NA	QC	200	1.93e+02	96.500	% Recovery
3	ICSA		0	●ICP-QC	ND	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	NI	QC	1	<2.00e-2		ug/g
3	ICSA		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
3	ICSA		0	●ICP-QC	PB	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
3	ICSA		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
3	ICSA		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
3	ICSA		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
4	ICSAB		0	●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB		0	●ICP-QC	AL	QC	200	1.97e+02	98.500	% Recovery
4	ICSAB		0	●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	BA	QC	0.5	5.07e-01	101.400	% Recovery
4	ICSAB		0	●ICP-QC	BE	QC	0.5	5.02e-01	100.400	% Recovery
4	ICSAB		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	CA	QC	100.	1.01e+02	101.000	% Recovery
4	ICSAB		0	●ICP-QC	CD	QC	1.0	9.95e-01	99.500	% Recovery
4	ICSAB		0	●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	CO	QC	0.5	4.92e-01	98.400	% Recovery
4	ICSAB		0	●ICP-QC	CR	QC	0.5	5.02e-01	100.400	% Recovery
4	ICSAB		0	●ICP-QC	CU	QC	0.5	4.99e-01	99.800	% Recovery
4	ICSAB		0	●ICP-QC	FE	QC	100	9.55e+01	95.500	% Recovery
4	ICSAB		0	●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
4	ICSAB		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	LI	QC	1.0	9.47e-01	94.700	% Recovery
4	ICSAB		0	●ICP-QC	MG	QC	100.	9.70e+01	97.000	% Recovery
4	ICSAB		0	●ICP-QC	MN	QC	0.5	5.04e-01	100.800	% Recovery
4	ICSAB		0	●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	NA	QC	200	1.93e+02	96.500	% Recovery
4	ICSAB		0	●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	NI	QC	1.0	9.73e-01	97.300	% Recovery
4	ICSAB		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
4	ICSAB		0	●ICP-QC	PB	QC	1.0	9.93e-01	99.300	% Recovery
4	ICSAB		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
4	ICSAB		0	●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
4	ICSAB		0	●ICP-QC	SI	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	SM	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	SR	QC	1.0	<1.00e-2		ug/g
4	ICSAB		0	●ICP-QC	TI	QC	1.0	<1.00e-2		ug/g
4	ICSAB		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
4	ICSAB		0	●ICP-QC	U	QC	1.0	<5.00e-1		ug/g
4	ICSAB		0	●ICP-QC	V	QC	0.5	4.96e-01	99.200	% Recovery
4	ICSAB		0	●ICP-QC	ZN	QC	1.0	1.00e+00	100.000	% Recovery
4	ICSAB		0	●ICP-QC	ZR	QC	1.0	<1.00e-2		ug/g
5	PREPSTDTJA		0	●ICP-A01	AG-A-01	SOLID	1.0	9.19e-01	91.900	% Recovery
5	PREPSTDTJA		0	●ICP-A01	AL-A-01	SOLID	5.0	4.83e+00	96.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	AS-A-01	SOLID	5.0	4.86e+00	97.200	% Recovery
5	PREPSTDTJA		0	●ICP-A01	B-A-01	SOLID	5.0	5.44e+00	108.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	BA-A-01	SOLID	5.0	4.88e+00	97.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	BE-A-01	SOLID	5.0	5.15e+00	103.000	% Recovery
5	PREPSTDTJA		0	●ICP-A01	BI-A-01	SOLID	5.0	4.62e+00	92.400	% Recovery
5	PREPSTDTJA		0	●ICP-A01	CA-A-01	SOLID	5.0	5.01e+00	100.200	% Recovery
5	PREPSTDTJA		0	●ICP-A01	CD-A-01	SOLID	5.0	4.73e+00	94.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	CE-A-01	SOLID	5.0	5.00e+00	100.000	% Recovery
5	PREPSTDTJA		0	●ICP-A01	CO-A-01	SOLID	5.0	4.92e+00	98.400	% Recovery
5	PREPSTDTJA		0	●ICP-A01	CR-A-01	SOLID	5.0	4.85e+00	97.000	% Recovery
5	PREPSTDTJA		0	●ICP-A01	CU-A-01	SOLID	5.0	4.64e+00	92.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	FE-A-01	SOLID	5.0	4.88e+00	97.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	K-A-01	SOLID	5.0	4.94e+00	98.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	LA-A-01	SOLID	5.0	4.91e+00	98.200	% Recovery
5	PREPSTDTJA		0	●ICP-A01	LI-A-01	SOLID	5.0	4.79e+00	95.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	MG-A-01	SOLID	5.0	4.73e+00	94.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	MN-A-01	SOLID	5.0	4.83e+00	96.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	MO-A-01	SOLID	5.0	4.88e+00	97.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	NA-A-01	SOLID	5.0	5.45e+00	109.000	% Recovery
5	PREPSTDTJA		0	●ICP-A01	ND-A-01	SOLID	5.0	4.90e+00	98.000	% Recovery
5	PREPSTDTJA		0	●ICP-A01	NI-A-01	SOLID	5.0	4.86e+00	97.200	% Recovery
5	PREPSTDTJA		0	●ICP-A01	P-A-01	SOLID	5.0	4.99e+00	99.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	PB-A-01	SOLID	5.0	4.58e+00	91.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	S-A-01	SOLID	5.0	4.78e+00	95.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	SB-A-01	SOLID	5.0	4.83e+00	96.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	SE-A-01	SOLID	5.0	4.89e+00	97.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	SI-A-01	SOLID	5.0	6.76e+00	135.200	% Recovery
5	PREPSTDTJA		0	●ICP-A01	SM-A-01	SOLID	5.0	4.99e+00	99.800	% Recovery
5	PREPSTDTJA		0	●ICP-A01	SR-A-01	SOLID	5.0	4.85e+00	97.000	% Recovery
5	PREPSTDTJA		0	●ICP-A01	TL-A-01	SOLID	5.0	4.43e+00	88.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	U-A-01	SOLID	10.	9.44e+00	94.400	% Recovery
5	PREPSTDTJA		0	●ICP-A01	V-A-01	SOLID	5.0	4.82e+00	96.400	% Recovery
5	PREPSTDTJA		0	●ICP-A01	ZN-A-01	SOLID	5.0	4.63e+00	92.600	% Recovery
5	PREPSTDTJA		0	●ICP-A01	ZR-A-01	SOLID	5.0	5.21e+00	104.200	% Recovery
5	PREPSTDTJA		0	●ICP-A01	TI-A-01	SOLID	5.0	4.58e+00	91.600	% Recovery
6	PREPBLKTJA		0	●ICP-A01	AG-A-01	SOLID	1	<1.00e-2		ug/g
6	PREPBLKTJA		0	●ICP-A01	AL-A-01	SOLID	1	1.18e-01	0.118	ug/g
6	PREPBLKTJA		0	●ICP-A01	AS-A-01	SOLID	1	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
6	PREPBLKTJA		0		●ICP-A01 B-A-01	SOLID	1		5.40e-01	0.540	ug/g
6	PREPBLKTJA		0		●ICP-A01 BA-A-01	SOLID	1		<5.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 BE-A-01	SOLID	1		<5.00e-3		ug/g
6	PREPBLKTJA		0		●ICP-A01 BI-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 CA-A-01	SOLID	1		4.59e-01	0.459	ug/g
6	PREPBLKTJA		0		●ICP-A01 CD-A-01	SOLID	1		<5.00e-3		ug/g
6	PREPBLKTJA		0		●ICP-A01 CE-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 CO-A-01	SOLID	1		<2.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 CR-A-01	SOLID	1		1.67e-02	0.017	ug/g
6	PREPBLKTJA		0		●ICP-A01 CU-A-01	SOLID	1		2.60e-02	0.026	ug/g
6	PREPBLKTJA		0		●ICP-A01 FE-A-01	SOLID	1		7.00e-02	0.070	ug/g
6	PREPBLKTJA		0		●ICP-A01 K-A-01	SOLID	1		<5.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 LA-A-01	SOLID	1		<5.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 LI-A-01	SOLID	1		<1.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 MG-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 MN-A-01	SOLID	1		<1.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 MO-A-01	SOLID	1		<5.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 NA-A-01	SOLID	1		7.70e-01	0.770	ug/g
6	PREPBLKTJA		0		●ICP-A01 ND-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 NI-A-01	SOLID	1		<2.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 P-A-01	SOLID	1		<2.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 PB-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 S-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 SB-A-01	SOLID	1		<6.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 SE-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 SI-A-01	SOLID	1		2.27e-01	0.227	ug/g
6	PREPBLKTJA		0		●ICP-A01 SM-A-01	SOLID	1		<1.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 SR-A-01	SOLID	1		<1.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 TL-A-01	SOLID	1		<2.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 U-A-01	SOLID	1		<5.00e-1		ug/g
6	PREPBLKTJA		0		●ICP-A01 V-A-01	SOLID	1		<5.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 ZN-A-01	SOLID	1		2.48e-02	0.025	ug/g
6	PREPBLKTJA		0		●ICP-A01 ZR-A-01	SOLID	1		<1.00e-2		ug/g
6	PREPBLKTJA		0		●ICP-A01 TI-A-01	SOLID	1		<1.00e-2		ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 AG-A-01	SOLID	N/A		2.77e+03	11.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 AL-A-01	SOLID	N/A		5.17e+04	54.800	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 AS-A-01	SOLID	N/A	<	1.10e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 B-A-01	SOLID	N/A	<	5.48e+01	54.800	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 BA-A-01	SOLID	N/A		3.04e+02	54.800	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 BE-A-01	SOLID	N/A	<	5.48e+00	5.480	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 BI-A-01	SOLID	N/A	<	1.10e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 CA-A-01	SOLID	N/A		1.33e+03	110.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 CD-A-01	SOLID	N/A		3.33e+01	5.480	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 CE-A-01	SOLID	N/A		1.78e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 CO-A-01	SOLID	N/A	<	2.19e+01	21.900	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 CR-A-01	SOLID	N/A		6.45e+02	11.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 CU-A-01	SOLID	N/A		8.97e+01	11.000	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 FE-A-01	SOLID	N/A		6.87e+04	54.800	ug/g
7	SAMPLE	S96T000556	0	A	●ICP-A01 K-A-01	SOLID	N/A		6.43e+02	548.000	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
7	SAMPLE	S96T000556	0	A	@ICP-A01 LA-A-01	SOLID	N/A		7.48e+01	54.800	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 LI-A-01	SOLID	N/A	<	1.10e+01	11.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 MG-A-01	SOLID	N/A		2.19e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 MN-A-01	SOLID	N/A		1.86e+03	11.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 MO-A-01	SOLID	N/A	<	5.48e+01	54.800	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 NA-A-01	SOLID	N/A		1.61e+05	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 ND-A-01	SOLID	N/A		1.39e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 NI-A-01	SOLID	N/A		6.45e+02	21.900	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 P-A-01	SOLID	N/A		2.58e+03	219.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 PB-A-01	SOLID	N/A		2.49e+03	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 S-A-01	SOLID	N/A		1.39e+03	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 SB-A-01	SOLID	N/A	<	6.57e+01	65.700	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 SE-A-01	SOLID	N/A	<	1.10e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 SI-A-01	SOLID	N/A		2.87e+04	54.800	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 SM-A-01	SOLID	N/A	<	1.10e+02	110.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 SR-A-01	SOLID	N/A		2.11e+01	11.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 TI-A-01	SOLID	N/A		1.20e+02	11.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 TL-A-01	SOLID	N/A	<	2.19e+02	219.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 U-A-01	SOLID	N/A		8.30e+02	548.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 V-A-01	SOLID	N/A	<	5.48e+01	54.800	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 ZN-A-01	SOLID	N/A		3.96e+01	11.000	ug/g
7	SAMPLE	S96T000556	0	A	@ICP-A01 ZR-A-01	SOLID	N/A		4.93e+01	11.000	ug/g
8	DUP	S96T000556	0	A	@ICP-A01 AG-A-01	SOLID	2.77e+03		2.02e+03	31.315	RPD
8	DUP	S96T000556	0	A	@ICP-A01 AL-A-01	SOLID	5.17e+04		4.42e+04	15.641	RPD
8	DUP	S96T000556	0	A	@ICP-A01 AS-A-01	SOLID	<1.10e2		<9.43e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01 B-A-01	SOLID	<5.48e1		<4.72e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01 BA-A-01	SOLID	3.04e+02		2.60e+02	15.603	RPD
8	DUP	S96T000556	0	A	@ICP-A01 BE-A-01	SOLID	<5.48e0		<4.72e0		RPD
8	DUP	S96T000556	0	A	@ICP-A01 BI-A-01	SOLID	<1.10e2		<9.43e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01 CA-A-01	SOLID	1.33e+03		1.12e+03	17.143	RPD
8	DUP	S96T000556	0	A	@ICP-A01 CD-A-01	SOLID	3.33e+01		2.71e+01	20.530	RPD
8	DUP	S96T000556	0	A	@ICP-A01 CE-A-01	SOLID	1.78e+02		1.74e+02	2.273	RPD
8	DUP	S96T000556	0	A	@ICP-A01 CO-A-01	SOLID	<2.19e1		<1.89e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01 CR-A-01	SOLID	6.45e+02		5.52e+02	15.539	RPD
8	DUP	S96T000556	0	A	@ICP-A01 CU-A-01	SOLID	8.97e+01		7.67e+01	15.625	RPD
8	DUP	S96T000556	0	A	@ICP-A01 FE-A-01	SOLID	6.87e+04		5.86e+04	15.868	RPD
8	DUP	S96T000556	0	A	@ICP-A01 K-A-01	SOLID	6.43e+02		5.88e+02	8.936	RPD
8	DUP	S96T000556	0	A	@ICP-A01 LA-A-01	SOLID	7.48e+01		6.05e+01	21.138	RPD
8	DUP	S96T000556	0	A	@ICP-A01 LI-A-01	SOLID	<1.10e1		<9.43e0		RPD
8	DUP	S96T000556	0	A	@ICP-A01 MG-A-01	SOLID	2.19e+02		1.87e+02	15.764	RPD
8	DUP	S96T000556	0	A	@ICP-A01 MN-A-01	SOLID	1.86e+03		1.59e+03	15.652	RPD
8	DUP	S96T000556	0	A	@ICP-A01 MO-A-01	SOLID	<5.48e1		<4.72e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01 NA-A-01	SOLID	1.61e+05		1.37e+05	16.107	RPD
8	DUP	S96T000556	0	A	@ICP-A01 ND-A-01	SOLID	1.39e+02		1.27e+02	9.023	RPD
8	DUP	S96T000556	0	A	@ICP-A01 NI-A-01	SOLID	6.45e+02		5.50e+02	15.900	RPD
8	DUP	S96T000556	0	A	@ICP-A01 P-A-01	SOLID	2.58e+03		2.20e+03	15.900	RPD
8	DUP	S96T000556	0	A	@ICP-A01 PB-A-01	SOLID	2.49e+03		2.15e+03	14.655	RPD
8	DUP	S96T000556	0	A	@ICP-A01 S-A-01	SOLID	1.39e+03		1.19e+03	15.504	RPD
8	DUP	S96T000556	0	A	@ICP-A01 SB-A-01	SOLID	<6.57e1		<5.66e1		RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
8	DUP	S96T000556	0	A	@ICP-A01	SE-A-01	SOLID	<1.10e2	<9.43e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01	SI-A-01	SOLID	2.87e+04	2.47e+04	14.981	RPD
8	DUP	S96T000556	0	A	@ICP-A01	SM-A-01	SOLID	<1.10e2	<9.43e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01	SR-A-01	SOLID	2.11e+01	1.79e+01	16.410	RPD
8	DUP	S96T000556	0	A	@ICP-A01	TL-A-01	SOLID	<2.19e2	<1.89e2		RPD
8	DUP	S96T000556	0	A	@ICP-A01	U-A-01	SOLID	8.30e+02	6.86e+02	18.997	RPD
8	DUP	S96T000556	0	A	@ICP-A01	V-A-01	SOLID	<5.48e1	<4.72e1		RPD
8	DUP	S96T000556	0	A	@ICP-A01	ZN-A-01	SOLID	3.96e+01	3.52e+01	11.765	RPD
8	DUP	S96T000556	0	A	@ICP-A01	ZR-A-01	SOLID	4.93e+01	3.94e+01	22.322	RPD
8	DUP	S96T000556	0	A	@ICP-A01	TI-A-01	SOLID	1.20e+02	1.02e+02	16.216	RPD
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	AG-A-01	SOLID	1.000	<5.00e-2		% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	AL-A-01	SOLID	5.000	69.097	1381.940	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	AS-A-01	SOLID	5.000	4.78e+00	95.600	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	B-A-01	SOLID	5.000	4.97e+00	99.400	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	BA-A-01	SOLID	5.000	5.112	102.240	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	BE-A-01	SOLID	5.000	4.92e+00	98.400	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	BI-A-01	SOLID	5.000	4.49e+00	89.800	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	CA-A-01	SOLID	5.000	4.551	91.020	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	CD-A-01	SOLID	5.000	4.708	94.160	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	CE-A-01	SOLID	5.000	5.307	106.140	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	CO-A-01	SOLID	5.000	4.86e+00	97.200	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	CR-A-01	SOLID	5.000	5.367	107.340	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	CU-A-01	SOLID	5.000	4.701	94.020	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	FE-A-01	SOLID	5.000	82.350	1647.000	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	K-A-01	SOLID	5.000	5.906	118.120	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	LA-A-01	SOLID	5.000	4.868	97.360	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	LI-A-01	SOLID	5.000	4.69e+00	93.800	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	MG-A-01	SOLID	5.000	4.779	95.580	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	MN-A-01	SOLID	5.000	6.826	136.520	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	MO-A-01	SOLID	5.000	4.80e+00	96.000	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	NA-A-01	SOLID	5.000	84.638	1692.760	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	ND-A-01	SOLID	5.000	5.136	102.720	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	NI-A-01	SOLID	5.000	5.488	109.760	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	P-A-01	SOLID	5.000	7.425	148.500	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	PB-A-01	SOLID	5.000	7.415	148.300	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	S-A-01	SOLID	5.000	6.062	121.240	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	SB-A-01	SOLID	5.000	4.89e+00	97.800	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	SE-A-01	SOLID	5.000	5.00e+00	100.000	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	SI-A-01	SOLID	5.000	36.817	736.340	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	SM-A-01	SOLID	5.000	5.07e+00	101.400	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	SR-A-01	SOLID	5.000	4.784	95.680	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	TL-A-01	SOLID	5.000	4.43e+00	88.600	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	U-A-01	SOLID	10.000	9.413	94.130	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	V-A-01	SOLID	5.000	4.79e+00	95.800	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	ZN-A-01	SOLID	5.000	4.669	93.380	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	ZR-A-01	SOLID	5.000	7.585	151.700	% Recovery
9	SPK-PREDIGS	S96T000556	0	A	@ICP-A01	TI-A-01	SOLID	5.000	4.603	92.060	% Recovery
10	CCV		0		@ICP-QC	AG	QC	5.0	4.70e+00	94.000	% Recovery
10	CCV		0		@ICP-QC	AL	QC	5.0	4.92e+00	98.400	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
10	CCV		0		●ICP-QC	AS	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV		0		●ICP-QC	B	QC	5.0	5.12e+00	102.400	% Recovery
10	CCV		0		●ICP-QC	BA	QC	5.0	5.00e+00	100.000	% Recovery
10	CCV		0		●ICP-QC	BE	QC	5.0	5.19e+00	103.800	% Recovery
10	CCV		0		●ICP-QC	BI	QC	5.0	5.00e+00	100.000	% Recovery
10	CCV		0		●ICP-QC	CA	QC	5.0	5.02e+00	100.400	% Recovery
10	CCV		0		●ICP-QC	CD	QC	5.0	5.03e+00	100.600	% Recovery
10	CCV		0		●ICP-QC	CE	QC	5.0	5.03e+00	100.600	% Recovery
10	CCV		0		●ICP-QC	CO	QC	5.0	5.06e+00	101.200	% Recovery
10	CCV		0		●ICP-QC	CR	QC	5.0	5.05e+00	101.000	% Recovery
10	CCV		0		●ICP-QC	CU	QC	5.0	5.08e+00	101.600	% Recovery
10	CCV		0		●ICP-QC	FE	QC	5.0	5.11e+00	102.200	% Recovery
10	CCV		0		●ICP-QC	K	QC	5.0	5.14e+00	102.800	% Recovery
10	CCV		0		●ICP-QC	LA	QC	5.0	5.03e+00	100.600	% Recovery
10	CCV		0		●ICP-QC	LI	QC	5.0	5.02e+00	100.400	% Recovery
10	CCV		0		●ICP-QC	MG	QC	5.0	4.94e+00	98.800	% Recovery
10	CCV		0		●ICP-QC	MN	QC	5.0	5.05e+00	101.000	% Recovery
10	CCV		0		●ICP-QC	MO	QC	5.0	5.04e+00	100.800	% Recovery
10	CCV		0		●ICP-QC	NA	QC	5.0	5.00e+00	100.000	% Recovery
10	CCV		0		●ICP-QC	ND	QC	5.0	5.15e+00	103.000	% Recovery
10	CCV		0		●ICP-QC	NI	QC	5.0	5.02e+00	100.400	% Recovery
10	CCV		0		●ICP-QC	P	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV		0		●ICP-QC	PB	QC	5.0	5.00e+00	100.000	% Recovery
10	CCV		0		●ICP-QC	S	QC	5.0	4.97e+00	99.400	% Recovery
10	CCV		0		●ICP-QC	SB	QC	5.0	4.64e+00	92.800	% Recovery
10	CCV		0		●ICP-QC	SE	QC	5.0	5.31e+00	106.200	% Recovery
10	CCV		0		●ICP-QC	SI	QC	5.0	4.85e+00	97.000	% Recovery
10	CCV		0		●ICP-QC	SM	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV		0		●ICP-QC	SR	QC	5.0	4.98e+00	99.600	% Recovery
10	CCV		0		●ICP-QC	TI	QC	5.0	4.92e+00	98.400	% Recovery
10	CCV		0		●ICP-QC	TL	QC	5.0	4.84e+00	96.800	% Recovery
10	CCV		0		●ICP-QC	U	QC	10.0	9.66e+00	96.600	% Recovery
10	CCV		0		●ICP-QC	V	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV		0		●ICP-QC	ZN	QC	5.0	5.09e+00	101.800	% Recovery
10	CCV		0		●ICP-QC	ZR	QC	5.0	4.98e+00	99.600	% Recovery
11	CCB		0		●ICP-QC	AG	QC	1	1.61e-01	0.161	ug/g
11	CCB		0		●ICP-QC	AL	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
11	CCB		0		●ICP-QC	BI	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	CA	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
11	CCB		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
11	CCB		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	FE	QC	1	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit
11	CCB		0		●ICP-QC	K	QC	1		<5.00e-1		ug/g
11	CCB		0		●ICP-QC	LA	QC	1		<5.00e-2		ug/g
11	CCB		0		●ICP-QC	LI	QC	1		<1.00e-2		ug/g
11	CCB		0		●ICP-QC	MG	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	MN	QC	1		<1.00e-2		ug/g
11	CCB		0		●ICP-QC	MO	QC	1		<5.00e-2		ug/g
11	CCB		0		●ICP-QC	NA	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	ND	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	NI	QC	1		<2.00e-2		ug/g
11	CCB		0		●ICP-QC	P	QC	1		<2.00e-1		ug/g
11	CCB		0		●ICP-QC	PB	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	S	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	SB	QC	1		6.95e-02	0.070	ug/g
11	CCB		0		●ICP-QC	SE	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	SI	QC	1		<5.00e-2		ug/g
11	CCB		0		●ICP-QC	SM	QC	1		<1.00e-1		ug/g
11	CCB		0		●ICP-QC	SR	QC	1		<1.00e-2		ug/g
11	CCB		0		●ICP-QC	TI	QC	1		<1.00e-2		ug/g
11	CCB		0		●ICP-QC	TL	QC	1		<2.00e-1		ug/g
11	CCB		0		●ICP-QC	U	QC	1		<5.00e-1		ug/g
11	CCB		0		●ICP-QC	V	QC	1		<5.00e-2		ug/g
11	CCB		0		●ICP-QC	ZN	QC	1		<1.00e-2		ug/g
11	CCB		0		●ICP-QC	ZR	QC	1		<1.00e-2		ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	AG-A-01	SOLID	N/A		1.42e+03	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	AL-A-01	SOLID	N/A		5.18e+04	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	AS-A-01	SOLID	N/A	<	8.43e+01	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	B-A-01	SOLID	N/A		7.13e+01	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	BA-A-01	SOLID	N/A		2.88e+02	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	BE-A-01	SOLID	N/A	<	4.22e+00	4.210	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	BI-A-01	SOLID	N/A	<	8.43e+01	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	CA-A-01	SOLID	N/A		8.82e+02	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	CD-A-01	SOLID	N/A		3.99e+01	4.210	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	CE-A-01	SOLID	N/A		2.06e+02	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	CO-A-01	SOLID	N/A	<	1.69e+01	16.900	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	CR-A-01	SOLID	N/A		7.69e+02	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	CU-A-01	SOLID	N/A		8.44e+01	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	FE-A-01	SOLID	N/A		7.03e+04	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	K-A-01	SOLID	N/A		6.12e+02	422.000	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	LA-A-01	SOLID	N/A		5.91e+01	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	LI-A-01	SOLID	N/A	<	8.43e+00	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	MG-A-01	SOLID	N/A		2.25e+02	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	MN-A-01	SOLID	N/A		1.75e+03	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	MO-A-01	SOLID	N/A	<	4.22e+01	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	NA-A-01	SOLID	N/A		1.19e+05	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	ND-A-01	SOLID	N/A		1.53e+02	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	NI-A-01	SOLID	N/A		6.53e+02	16.900	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	P-A-01	SOLID	N/A		2.22e+03	169.000	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	PB-A-01	SOLID	N/A		2.55e+03	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	S-A-01	SOLID	N/A		1.13e+03	84.300	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
12	SAMPLE	S96T000572	0	A	●ICP-A01	SB-A-01	SOLID	N/A		9.54e+01	50.600	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	SE-A-01	SOLID	N/A	<	8.43e+01	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	SI-A-01	SOLID	N/A		2.27e+04	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	SM-A-01	SOLID	N/A	<	8.43e+01	84.300	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	SR-A-01	SOLID	N/A		1.77e+01	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	TI-A-01	SOLID	N/A		1.25e+02	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	TL-A-01	SOLID	N/A	<	1.69e+02	169.000	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	U-A-01	SOLID	N/A		7.07e+02	422.000	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	V-A-01	SOLID	N/A	<	4.22e+01	42.200	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	ZN-A-01	SOLID	N/A		4.03e+01	8.430	ug/g
12	SAMPLE	S96T000572	0	A	●ICP-A01	ZR-A-01	SOLID	N/A		7.55e+02	8.430	ug/g
13	DUP	S96T000572	0	A	●ICP-A01	AG-A-01	SOLID	1.42e+03		1.66e+03	15.584	RPD
13	DUP	S96T000572	0	A	●ICP-A01	AL-A-01	SOLID	5.18e+04		6.08e+04	15.986	RPD
13	DUP	S96T000572	0	A	●ICP-A01	AS-A-01	SOLID	<8.43e1		<9.86e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	B-A-01	SOLID	7.13e+01		8.30e+01	15.165	RPD
13	DUP	S96T000572	0	A	●ICP-A01	BA-A-01	SOLID	2.88e+02		3.40e+02	16.561	RPD
13	DUP	S96T000572	0	A	●ICP-A01	BE-A-01	SOLID	<4.22e0		<4.93e0		RPD
13	DUP	S96T000572	0	A	●ICP-A01	BI-A-01	SOLID	<8.43e1		<9.86e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	CA-A-01	SOLID	8.82e+02		1.04e+03	16.441	RPD
13	DUP	S96T000572	0	A	●ICP-A01	CD-A-01	SOLID	3.99e+01		4.45e+01	10.900	RPD
13	DUP	S96T000572	0	A	●ICP-A01	CE-A-01	SOLID	2.06e+02		1.99e+02	3.457	RPD
13	DUP	S96T000572	0	A	●ICP-A01	CO-A-01	SOLID	<1.69e1		<1.97e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	CR-A-01	SOLID	7.69e+02		8.84e+02	13.914	RPD
13	DUP	S96T000572	0	A	●ICP-A01	CU-A-01	SOLID	8.44e+01		9.64e+01	13.274	RPD
13	DUP	S96T000572	0	A	●ICP-A01	FE-A-01	SOLID	7.03e+04		8.25e+04	15.969	RPD
13	DUP	S96T000572	0	A	●ICP-A01	K-A-01	SOLID	6.12e+02		6.46e+02	5.405	RPD
13	DUP	S96T000572	0	A	●ICP-A01	LA-A-01	SOLID	5.91e+01		7.23e+01	20.091	RPD
13	DUP	S96T000572	0	A	●ICP-A01	LI-A-01	SOLID	<8.43e0		<9.86e0		RPD
13	DUP	S96T000572	0	A	●ICP-A01	MG-A-01	SOLID	2.25e+02		2.63e+02	15.574	RPD
13	DUP	S96T000572	0	A	●ICP-A01	MN-A-01	SOLID	1.75e+03		2.05e+03	15.789	RPD
13	DUP	S96T000572	0	A	●ICP-A01	MO-A-01	SOLID	<4.22e1		<4.93e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	NA-A-01	SOLID	1.19e+05		1.41e+05	16.923	RPD
13	DUP	S96T000572	0	A	●ICP-A01	ND-A-01	SOLID	1.53e+02		1.70e+02	10.526	RPD
13	DUP	S96T000572	0	A	●ICP-A01	NI-A-01	SOLID	6.53e+02		7.55e+02	14.489	RPD
13	DUP	S96T000572	0	A	●ICP-A01	P-A-01	SOLID	2.22e+03		2.60e+03	15.768	RPD
13	DUP	S96T000572	0	A	●ICP-A01	PB-A-01	SOLID	2.55e+03		2.97e+03	15.217	RPD
13	DUP	S96T000572	0	A	●ICP-A01	S-A-01	SOLID	1.13e+03		1.32e+03	15.510	RPD
13	DUP	S96T000572	0	A	●ICP-A01	SB-A-01	SOLID	9.54e+01		<5.91e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	SE-A-01	SOLID	<8.43e1		<9.86e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	SI-A-01	SOLID	2.27e+04		2.66e+04	15.822	RPD
13	DUP	S96T000572	0	A	●ICP-A01	SM-A-01	SOLID	<8.43e1		<9.86e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	SR-A-01	SOLID	1.77e+01		2.04e+01	14.173	RPD
13	DUP	S96T000572	0	A	●ICP-A01	TL-A-01	SOLID	<1.69e2		<1.97e2		RPD
13	DUP	S96T000572	0	A	●ICP-A01	U-A-01	SOLID	7.07e+02		8.90e+02	22.918	RPD
13	DUP	S96T000572	0	A	●ICP-A01	V-A-01	SOLID	<4.22e1		<4.93e1		RPD
13	DUP	S96T000572	0	A	●ICP-A01	ZN-A-01	SOLID	4.03e+01		4.46e+01	10.130	RPD
13	DUP	S96T000572	0	A	●ICP-A01	ZR-A-01	SOLID	7.55e+02		8.90e+02	16.413	RPD
13	DUP	S96T000572	0	A	●ICP-A01	TI-A-01	SOLID	1.25e+02		1.47e+02	16.176	RPD
14	SPK-PREDIG	S96T000572	0	A	●ICP-A01	AG-A-01	SOLID	1.000		0.722	72.200	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	AL-A-01	SOLID	5.000	11.620	232.400	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	AS-A-01	SOLID	5.000	4.80e+00	96.000	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	B-A-01	SOLID	5.000	4.777	95.540	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	BA-A-01	SOLID	5.000	4.860	97.200	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	BE-A-01	SOLID	5.000	4.89e+00	97.800	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	BI-A-01	SOLID	5.000	4.45e+00	89.000	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	CA-A-01	SOLID	5.000	5.068	101.360	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	CD-A-01	SOLID	5.000	4.613	92.260	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	CE-A-01	SOLID	5.000	4.946	98.920	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	CO-A-01	SOLID	5.000	4.80e+00	96.000	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	CR-A-01	SOLID	5.000	4.611	92.220	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	CU-A-01	SOLID	5.000	4.609	92.180	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	FE-A-01	SOLID	5.000	0.921	18.420	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	K-A-01	SOLID	5.000	4.244	84.880	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	LA-A-01	SOLID	5.000	4.810	96.200	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	LI-A-01	SOLID	5.000	4.73e+00	94.600	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	MG-A-01	SOLID	5.000	4.564	91.280	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	MN-A-01	SOLID	5.000	4.724	94.480	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	MO-A-01	SOLID	5.000	4.74e+00	94.800	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	NA-A-01	SOLID	5.000	92.227	1844.540	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	ND-A-01	SOLID	5.000	4.833	96.660	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	NI-A-01	SOLID	5.000	4.447	88.940	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	P-A-01	SOLID	5.000	6.137	122.740	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	PB-A-01	SOLID	5.000	4.101	82.020	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	S-A-01	SOLID	5.000	4.698	93.960	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	SB-A-01	SOLID	5.000	4.194	83.880	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	SE-A-01	SOLID	5.000	4.94e+00	98.800	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	SI-A-01	SOLID	5.000	<2.50e-1		% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	SM-A-01	SOLID	5.000	4.95e+00	99.000	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	SR-A-01	SOLID	5.000	4.785	95.700	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	TL-A-01	SOLID	5.000	4.38e+00	87.600	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	U-A-01	SOLID	10.000	10.409	104.090	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	V-A-01	SOLID	5.000	4.77e+00	95.400	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	ZN-A-01	SOLID	5.000	4.561	91.220	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	ZR-A-01	SOLID	5.000	9.020	180.400	% Recovery
14	SPK	PREDIGS96T000572	0	A	●ICP-A01	TI-A-01	SOLID	5.000	4.481	89.620	% Recovery
15	ICSA		0		●ICP-QC	AG	QC	1	3.13e-01	0.313	ug/g
15	ICSA		0		●ICP-QC	AL	QC	200	2.00e+02	100.000	% Recovery
15	ICSA		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
15	ICSA		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
15	ICSA		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
15	ICSA		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
15	ICSA		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
15	ICSA		0		●ICP-QC	CA	QC	100.	1.02e+02	102.000	% Recovery
15	ICSA		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
15	ICSA		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
15	ICSA		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
15	ICSA		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
15	ICSA		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
15	ICSA		0	●ICP-QC	FE	QC	100.	9.62e+01	96.200	% Recovery
15	ICSA		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
15	ICSA		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
15	ICSA		0	●ICP-QC	LI	QC	1	<1.00e-2		ug/g
15	ICSA		0	●ICP-QC	MG	QC	100.	9.71e+01	97.100	% Recovery
15	ICSA		0	●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
15	ICSA		0	●ICP-QC	MO	QC	1	<5.00e-2		ug/g
15	ICSA		0	●ICP-QC	NA	QC	200	1.94e+02	97.000	% Recovery
15	ICSA		0	●ICP-QC	ND	QC	1	<1.00e-1		ug/g
15	ICSA		0	●ICP-QC	NI	QC	1	<2.00e-2		ug/g
15	ICSA		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
15	ICSA		0	●ICP-QC	PB	QC	1	<1.00e-1		ug/g
15	ICSA		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
15	ICSA		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
15	ICSA		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
15	ICSA		0	●ICP-QC	SI	QC	1	5.06e-02	0.051	ug/g
15	ICSA		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
15	ICSA		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
15	ICSA		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
15	ICSA		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
15	ICSA		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
15	ICSA		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
15	ICSA		0	●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
15	ICSA		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
16	ICSAB		0	●ICP-QC	AG	QC	1.0	1.18e+00	118.000	% Recovery
16	ICSAB		0	●ICP-QC	AL	QC	200	2.00e+02	100.000	% Recovery
16	ICSAB		0	●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
16	ICSAB		0	●ICP-QC	BA	QC	0.5	5.16e-01	103.200	% Recovery
16	ICSAB		0	●ICP-QC	BE	QC	0.5	5.07e-01	101.400	% Recovery
16	ICSAB		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	CA	QC	100.	1.02e+02	102.000	% Recovery
16	ICSAB		0	●ICP-QC	CD	QC	1.0	1.00e+00	100.000	% Recovery
16	ICSAB		0	●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	CO	QC	0.5	4.86e-01	97.200	% Recovery
16	ICSAB		0	●ICP-QC	CR	QC	0.5	5.03e-01	100.600	% Recovery
16	ICSAB		0	●ICP-QC	CU	QC	0.5	5.06e-01	101.200	% Recovery
16	ICSAB		0	●ICP-QC	FE	QC	100	9.63e+01	96.300	% Recovery
16	ICSAB		0	●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
16	ICSAB		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
16	ICSAB		0	●ICP-QC	LI	QC	1.0	9.59e-01	95.900	% Recovery
16	ICSAB		0	●ICP-QC	MG	QC	100.	9.72e+01	97.200	% Recovery
16	ICSAB		0	●ICP-QC	MN	QC	0.5	5.05e-01	101.000	% Recovery
16	ICSAB		0	●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
16	ICSAB		0	●ICP-QC	NA	QC	200	1.96e+02	98.000	% Recovery
16	ICSAB		0	●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	NI	QC	1.0	9.79e-01	97.900	% Recovery
16	ICSAB		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
16	ICSAB		0	●ICP-QC	PB	QC	1.0	9.90e-01	99.000	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
16	ICSAB		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
16	ICSAB		0	●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	SI	QC	1.0	<5.00e-2		ug/g
16	ICSAB		0	●ICP-QC	SM	QC	1.0	<1.00e-1		ug/g
16	ICSAB		0	●ICP-QC	SR	QC	1.0	<1.00e-2		ug/g
16	ICSAB		0	●ICP-QC	TI	QC	1.0	<1.00e-2		ug/g
16	ICSAB		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
16	ICSAB		0	●ICP-QC	U	QC	1.0	<5.00e-1		ug/g
16	ICSAB		0	●ICP-QC	V	QC	0.5	4.98e-01	99.600	% Recovery
16	ICSAB		0	●ICP-QC	ZN	QC	1.0	9.97e-01	99.700	% Recovery
16	ICSAB		0	●ICP-QC	ZR	QC	1.0	<1.00e-2		ug/g
17	CCV		0	●ICP-QC	AG	QC	5.0	4.84e+00	96.800	% Recovery
17	CCV		0	●ICP-QC	AL	QC	5.0	5.00e+00	100.000	% Recovery
17	CCV		0	●ICP-QC	AS	QC	5.0	5.11e+00	102.200	% Recovery
17	CCV		0	●ICP-QC	B	QC	5.0	5.11e+00	102.200	% Recovery
17	CCV		0	●ICP-QC	BA	QC	5.0	5.11e+00	102.200	% Recovery
17	CCV		0	●ICP-QC	BE	QC	5.0	5.22e+00	104.400	% Recovery
17	CCV		0	●ICP-QC	BI	QC	5.0	4.98e+00	99.600	% Recovery
17	CCV		0	●ICP-QC	CA	QC	5.0	5.07e+00	101.400	% Recovery
17	CCV		0	●ICP-QC	CD	QC	5.0	4.99e+00	99.800	% Recovery
17	CCV		0	●ICP-QC	CE	QC	5.0	5.15e+00	103.000	% Recovery
17	CCV		0	●ICP-QC	CO	QC	5.0	5.02e+00	100.400	% Recovery
17	CCV		0	●ICP-QC	CR	QC	5.0	5.01e+00	100.200	% Recovery
17	CCV		0	●ICP-QC	CU	QC	5.0	5.17e+00	103.400	% Recovery
17	CCV		0	●ICP-QC	FE	QC	5.0	5.08e+00	101.600	% Recovery
17	CCV		0	●ICP-QC	K	QC	5.0	5.04e+00	100.800	% Recovery
17	CCV		0	●ICP-QC	LA	QC	5.0	5.08e+00	101.600	% Recovery
17	CCV		0	●ICP-QC	LI	QC	5.0	5.14e+00	102.800	% Recovery
17	CCV		0	●ICP-QC	MG	QC	5.0	4.91e+00	98.200	% Recovery
17	CCV		0	●ICP-QC	MN	QC	5.0	5.01e+00	100.200	% Recovery
17	CCV		0	●ICP-QC	MO	QC	5.0	5.04e+00	100.800	% Recovery
17	CCV		0	●ICP-QC	NA	QC	5.0	5.12e+00	102.400	% Recovery
17	CCV		0	●ICP-QC	ND	QC	5.0	5.23e+00	104.600	% Recovery
17	CCV		0	●ICP-QC	NI	QC	5.0	4.99e+00	99.800	% Recovery
17	CCV		0	●ICP-QC	P	QC	5.0	5.04e+00	100.800	% Recovery
17	CCV		0	●ICP-QC	PB	QC	5.0	4.99e+00	99.800	% Recovery
17	CCV		0	●ICP-QC	S	QC	5.0	4.96e+00	99.200	% Recovery
17	CCV		0	●ICP-QC	SB	QC	5.0	4.74e+00	94.800	% Recovery
17	CCV		0	●ICP-QC	SE	QC	5.0	5.31e+00	106.200	% Recovery
17	CCV		0	●ICP-QC	SI	QC	5.0	4.80e+00	96.000	% Recovery
17	CCV		0	●ICP-QC	SM	QC	5.0	5.17e+00	103.400	% Recovery
17	CCV		0	●ICP-QC	SR	QC	5.0	5.07e+00	101.400	% Recovery
17	CCV		0	●ICP-QC	TI	QC	5.0	4.96e+00	99.200	% Recovery
17	CCV		0	●ICP-QC	TL	QC	5.0	4.84e+00	96.800	% Recovery
17	CCV		0	●ICP-QC	U	QC	10.0	9.73e+00	97.300	% Recovery
17	CCV		0	●ICP-QC	V	QC	5.0	5.09e+00	101.800	% Recovery
17	CCV		0	●ICP-QC	ZN	QC	5.0	5.01e+00	100.200	% Recovery
17	CCV		0	●ICP-QC	ZR	QC	5.0	5.01e+00	100.200	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6686

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
18	CCB	0		●ICP-QC	AG	QC	1	1.88e-01	0.188	ug/g
18	CCB	0		●ICP-QC	AL	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
18	CCB	0		●ICP-QC	BI	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	CA	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
18	CCB	0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
18	CCB	0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	FE	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
18	CCB	0		●ICP-QC	LA	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	MG	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	MN	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	NA	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
18	CCB	0		●ICP-QC	P	QC	1	<2.00e-1		ug/g
18	CCB	0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	S	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
18	CCB	0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
18	CCB	0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	TL	QC	1	<2.00e-1		ug/g
18	CCB	0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
18	CCB	0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
18	CCB	0		●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
18	CCB	0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g

Final page for worklist# 6686

Analyst Signature Date

Analyst Signature Date

Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

WHC-SD-WM-DP-183, REV. 0

Identity 1: ICV Identity 2: Quality Control 10:12 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.994	5.030	5.019	4.838	4.954	5.127	5.089	5.016
S.D.	0.016	0.024	0.015	0.007	0.019	0.024	0.032	0.056
% R.S.D.	0.321	0.487	0.305	0.154	0.376	0.462	0.634	1.120

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.121	5.049	5.021	5.050	5.024	5.104	5.040	9.644
S.D.	0.013	0.021	0.018	0.015	0.025	0.029	0.031	0.015
% R.S.D.	0.252	0.407	0.368	0.290	0.493	0.559	0.617	0.157

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.103	5.104	5.044	5.020	5.006	4.996	5.125	4.955
S.D.	0.021	0.022	0.028	0.126	0.062	0.016	0.024	0.045
% R.S.D.	0.413	0.427	0.562	2.506	1.239	0.322	0.469	0.916

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.137	5.313	4.953	5.020	4.982	5.058	5.076	4.975
S.D.	0.015	0.036	0.007	0.048	0.016	0.005	0.031	0.040
% R.S.D.	0.301	0.685	0.132	0.949	0.317	0.092	0.615	0.797

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.067	4.685	5.120	5.206	4.846
S.D.	0.017	0.020	0.013	0.015	0.022
% R.S.D.	0.329	0.423	0.263	0.295	0.449

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 759 TO 778.

[signature]
4-26-96
C-106 ACID DIGEST
S96T000556, 572
2nd - 8nd, SR
FILE # 960426A.DAT

Identity 1: ICB Identity 2: Quality Control 10:16 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.000	0.000	-0.011	-0.001	0.002	-0.000	0.001	0.001
S.D.	0.002	0.000	0.004	0.002	0.005	0.002	0.000	0.000
% R.S.D.	424.213	458.258	40.793	337.931	230.986	238737.538	92.248	44.904

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.002	0.001	0.000	0.003	-0.001	-0.007	0.005
S.D.	0.000	0.000	0.001	0.001	0.001	0.002	0.005	0.043
% R.S.D.	66.969	25.238	148.892	179.691	26.417	144.165	73.070	796.024

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.011	-0.002	0.000	0.035	-0.003	0.003	-0.003	0.006
S.D.	0.016	0.010	0.000	0.004	0.004	0.001	0.002	0.004
% R.S.D.	146.772	611.689	47.297	11.190	123.790	26.021	56.706	74.220

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.000	-0.010	0.001	0.017	0.000	0.001	0.004	-0.031
S.D.	0.001	0.004	0.001	0.007	0.001	0.001	0.001	0.008
% R.S.D.	216.909	43.043	68.079	41.504	280.511	150.412	27.710	25.461

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	0.030	0.000	-0.000	0.013
S.D.	0.000	0.034	0.001	0.000	0.027
% R.S.D.	85.522	115.954	2648.877	36.100	212.740

WHC-SD-WM-DP-183, REV. 0

Identity 1: ICSA Identity 2: Quality Control 10:19 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.000	0.002	-0.003	0.018	196.939	-0.001	0.002	0.001
S.D.	0.001	0.000	0.007	0.003	0.568	0.002	0.000	0.000
% R.S.D.	780.428	6.536	203.332	19.363	0.289	232.828	10.668	3.818

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.004	0.006	0.005	95.129	101.744	0.003	-0.022	-0.027
S.D.	0.000	0.002	0.002	0.232	0.358	0.002	0.007	0.014
% R.S.D.	3.132	39.713	41.044	0.244	0.352	67.293	33.395	50.320

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.034	0.011	0.004	0.043	0.050	95.609	0.057	192.937
S.D.	0.007	0.007	0.000	0.009	0.016	0.326	0.006	0.753
% R.S.D.	19.513	61.170	2.947	21.643	31.283	0.341	10.385	0.390

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	0.032	0.002	-0.011	0.000	-0.001	0.016	0.002
S.D.	0.001	0.011	0.001	0.009	0.000	0.001	0.001	0.013
% R.S.D.	201.292	35.106	35.838	81.173	60.123	80.647	3.887	738.969

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.003	-0.028	0.002	0.003	0.030
S.D.	0.001	0.011	0.001	0.000	0.012
% R.S.D.	17.000	39.632	39.156	5.107	40.976

Identity 1: ICSAB Identity 2: Quality Control 10:21 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.001	0.002	-0.029	0.006	197.247	0.492	0.499	0.947
S.D.	0.001	0.000	0.010	0.002	0.625	0.002	0.001	0.006
% R.S.D.	170.509	7.704	33.169	31.225	0.317	0.351	0.191	0.613

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.000	0.973	0.008	95.481	101.482	0.502	-0.028	0.037
S.D.	0.001	0.004	0.002	0.189	0.294	0.003	0.012	0.037
% R.S.D.	0.112	0.383	26.349	0.198	0.289	0.513	44.764	100.799

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.015	0.042	0.507	0.064	0.077	97.021	0.047	192.695
S.D.	0.010	0.007	0.001	0.012	0.016	0.206	0.003	1.042
% R.S.D.	67.573	17.603	0.287	19.347	20.676	0.212	6.421	0.541

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.000	0.028	1.012	0.993	0.001	0.995	0.018	0.069
S.D.	0.001	0.013	0.001	0.010	0.000	0.004	0.001	0.014
% R.S.D.	355.398	48.916	0.060	1.056	54.696	0.414	3.710	19.964

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.504	0.015	0.496	0.502	0.015
S.D.	0.001	0.051	0.001	0.001	0.028
% R.S.D.	0.193	348.076	0.126	0.200	187.435

WHC-SD-WM-DP-183, REV. 0

Identity 1: prepstderl Identity 2: direct 10:26 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.214	4.850	4.619	6.759	4.833	4.917	4.637	4.793
S.D.	0.014	0.009	0.032	0.011	0.013	0.009	0.008	0.010
% R.S.D.	0.270	0.189	0.682	0.167	0.270	0.185	0.172	0.205

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.628	4.864	4.908	4.882	5.005	4.849	4.896	9.442
S.D.	0.011	0.015	0.018	0.022	0.004	0.021	0.033	0.046
% R.S.D.	0.236	0.305	0.365	0.450	0.080	0.432	0.676	0.490

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.002	4.985	4.878	4.989	4.780	4.728	4.858	5.445
S.D.	0.019	0.013	0.009	0.083	0.021	0.003	0.020	0.031
% R.S.D.	0.388	0.260	0.193	1.658	0.437	0.067	0.422	0.574

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.878	4.889	0.919	4.576	4.576	4.729	5.441	4.936
S.D.	0.014	0.017	0.002	0.048	0.010	0.012	0.016	0.018
% R.S.D.	0.286	0.346	0.230	1.040	0.209	0.260	0.302	0.372

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.829	4.827	4.824	5.154	4.429
S.D.	0.018	0.041	0.015	0.015	0.024
% R.S.D.	0.363	0.858	0.318	0.300	0.538

WHC-SD-WM-DP-183, REV. 0

Identity 1: prepblkarl Identity 2: direct 10:30 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	0.001	0.010	0.227	0.118	0.001	0.026	0.001
S.D.	0.002	0.000	0.009	0.003	0.006	0.002	0.000	0.000
% R.S.D.	200.562	10.825	94.423	1.250	5.115	171.574	1.188	12.374

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.025	0.002	-0.002	0.070	0.459	0.017	0.005	-0.064
S.D.	0.001	0.002	0.002	0.002	0.004	0.001	0.005	0.056
% R.S.D.	2.830	115.413	90.170	3.452	0.871	7.323	101.060	87.460

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.059	0.025	0.002	0.043	0.068	0.047	0.001	0.770
S.D.	0.014	0.011	0.000	0.001	0.003	0.003	0.005	0.006
% R.S.D.	24.473	43.502	7.348	2.099	3.964	7.216	358.671	0.834

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	0.013	0.003	0.010	0.001	0.002	0.540	0.363
S.D.	0.001	0.005	0.001	0.008	0.000	0.001	0.002	0.019
% R.S.D.	54.275	41.302	20.684	77.122	18.214	42.353	0.429	5.265

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.003	-0.012	0.003	0.001	0.006
S.D.	0.000	0.009	0.000	0.000	0.022
% R.S.D.	9.777	76.416	10.880	49.840	359.539

Identity 1: S96T000556_L Identity 2: 2ml-8ml-2ml-8ml 10:35 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 25.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.281	0.092	0.329	129.045	240.598	-0.001	0.427	0.025
S.D.	0.019	0.001	0.051	0.221	0.394	0.114	0.012	0.003
% R.S.D.	6.625	1.025	15.624	0.172	0.164	17853.119	2.892	11.948

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.239	3.017	0.456	322.264	6.413	2.945	0.280	5.104
S.D.	0.018	0.021	0.104	0.272	0.012	0.059	0.198	0.490
% R.S.D.	7.532	0.705	22.726	0.084	0.187	2.013	70.569	9.608

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	1.005	0.778	1.394	12.397	6.728	1.046	-0.224	768.450
S.D.	0.045	0.062	0.002	0.535	0.111	0.005	0.016	1.123
% R.S.D.	4.503	7.920	0.169	4.314	1.652	0.464	7.212	0.146

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.051	0.545	13.995	11.263	0.569	0.211	0.326	5.874
S.D.	0.030	0.306	0.017	0.147	0.006	0.017	0.044	0.099
% R.S.D.	58.654	56.099	0.120	1.302	1.110	8.188	13.441	1.684

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	8.699	0.018	0.013	0.004	-1.164
S.D.	0.022	0.497	0.006	0.006	0.304
% R.S.D.	0.253	2707.159	45.760	130.942	26.123

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T000556 Identity 2: 2ml-8ml 10:38 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.225	0.096	-0.087	131.183	235.903	0.029	0.409	0.022
S.D.	0.006	0.000	0.042	0.188	1.053	0.009	0.001	0.001
% R.S.D.	2.834	0.000	48.686	0.143	0.446	29.256	0.167	4.156

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.181	2.942	0.342	313.650	6.049	2.943	0.634	3.787
S.D.	0.002	0.002	0.008	1.229	0.014	0.011	0.044	0.168
% R.S.D.	1.069	0.072	2.300	0.392	0.235	0.383	6.935	4.432

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.813	0.187	1.388	11.775	6.338	1.001	-0.020	736.362
S.D.	0.059	0.042	0.002	0.220	0.077	0.001	0.015	1.768
% R.S.D.	7.238	22.309	0.145	1.867	1.209	0.128	75.659	0.240

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.086	0.453	12.648	11.385	0.547	0.152	0.237	2.934
S.D.	0.007	0.100	0.021	0.064	0.001	0.009	0.007	0.045
% R.S.D.	8.284	22.059	0.167	0.558	0.102	5.763	3.035	1.529

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	8.474	-0.146	0.030	0.007	0.061
S.D.	0.020	0.117	0.002	0.001	0.073
% R.S.D.	0.238	79.618	6.984	17.580	120.300

Identity 1: S96T000556_D Identity 2: 2ml-8ml 10:41 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.209	0.095	-0.180	130.923	234.517	0.019	0.407	0.025
S.D.	0.003	0.001	0.044	0.285	1.026	0.009	0.002	0.001
% R.S.D.	1.461	0.595	24.602	0.218	0.437	44.226	0.389	3.161

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.187	2.918	0.321	310.669	5.918	2.926	0.672	3.635
S.D.	0.005	0.011	0.010	0.864	0.008	0.022	0.012	0.207
% R.S.D.	2.697	0.363	3.261	0.278	0.140	0.737	1.789	5.702

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.921	0.167	1.377	11.656	6.287	0.990	-0.032	728.158
S.D.	0.048	0.038	0.001	0.075	0.044	0.001	0.008	2.013
% R.S.D.	5.169	22.886	0.084	0.643	0.693	0.085	24.960	0.276

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.079	0.205	10.697	11.403	0.539	0.144	0.236	3.120
S.D.	0.003	0.062	0.032	0.046	0.001	0.001	0.004	0.091
% R.S.D.	4.082	30.055	0.297	0.401	0.213	0.920	1.691	2.916

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	8.408	-0.063	0.041	0.007	0.256
S.D.	0.014	0.074	0.001	0.001	0.028
% R.S.D.	0.162	116.981	3.668	8.869	10.752

Identity 1: S96T000556_S Identity 2: 2ml-8ml 10:55 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	7.810	4.882	4.488	167.592	305.089	4.864	5.108	4.690
S.D.	0.025	0.007	0.017	0.220	1.231	0.017	0.011	0.038
% R.S.D.	0.315	0.150	0.379	0.132	0.403	0.354	0.217	0.801

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.849	8.425	5.210	395.775	10.635	8.311	5.772	13.246
S.D.	0.013	0.043	0.004	1.087	0.020	0.047	0.081	0.210
% R.S.D.	0.265	0.506	0.078	0.275	0.189	0.563	1.398	1.586

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	6.123	5.073	6.497	19.221	12.448	5.778	4.783	821.495
S.D.	0.048	0.038	0.011	0.417	0.119	0.009	0.014	5.669
% R.S.D.	0.789	0.757	0.164	2.167	0.956	0.152	0.301	0.690

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.800	4.996	11.640	18.831	5.149	4.857	4.970	8.841
S.D.	0.010	0.042	0.014	0.076	0.006	0.014	0.027	0.049
% R.S.D.	0.208	0.837	0.118	0.402	0.125	0.279	0.548	0.554

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	15.345	4.893	4.788	4.920	4.428
S.D.	0.020	0.089	0.004	0.004	0.133
% R.S.D.	0.129	1.814	0.085	0.082	2.995

Identity 1: CCV Identity 2: Quality Control 10:58 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.979	4.981	4.998	4.853	4.924	5.064	5.084	5.020
S.D.	0.008	0.006	0.038	0.011	0.009	0.008	0.002	0.014
% R.S.D.	0.155	0.117	0.750	0.224	0.181	0.156	0.030	0.278

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.090	5.024	5.029	5.111	5.015	5.054	5.148	9.663
S.D.	0.010	0.026	0.001	0.017	0.003	0.004	0.013	0.024
% R.S.D.	0.201	0.511	0.027	0.328	0.054	0.074	0.255	0.250

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.034	5.103	5.002	5.095	4.972	4.944	5.101	5.000
S.D.	0.007	0.005	0.004	0.063	0.037	0.012	0.041	0.013
% R.S.D.	0.133	0.101	0.085	1.238	0.737	0.242	0.801	0.257

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.043	5.306	4.699	5.001	4.920	5.027	5.116	5.138
S.D.	0.011	0.036	0.110	0.052	0.009	0.014	0.007	0.038
% R.S.D.	0.217	0.676	2.339	1.042	0.178	0.285	0.140	0.743

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.049	4.636	5.098	5.193	4.838
S.D.	0.011	0.026	0.010	0.006	0.012
% R.S.D.	0.214	0.562	0.200	0.109	0.239

Identity 1: CCB Identity 2: Quality Control 11:01 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.000	-0.014	0.020	-0.009	-0.004	0.000	0.001
S.D.	0.001	0.000	0.003	0.006	0.005	0.003	0.001	0.000
% R.S.D.	59.219	83.397	20.669	32.645	59.859	74.810	225.091	56.927

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	-0.000	0.005	0.006	0.001	-0.000	-0.020	0.074
S.D.	0.000	0.001	0.002	0.002	0.000	0.001	0.004	0.011
% R.S.D.	54.061	342.242	28.757	42.297	33.530	301.023	18.278	14.783

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.017	0.030	0.000	0.010	-0.004	0.001	-0.006	0.015
S.D.	0.002	0.004	0.000	0.003	0.001	0.000	0.005	0.005
% R.S.D.	10.585	14.215	109.057	29.444	33.745	32.476	79.111	31.580

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.000	0.021	0.161	-0.001	0.001	0.002	0.005	-0.012
S.D.	0.000	0.009	0.033	0.013	0.001	0.001	0.001	0.023
% R.S.D.	120.558	41.086	20.396	1286.275	82.614	62.039	13.273	192.849

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	0.070	-0.002	0.000	-0.094
S.D.	0.000	0.028	0.001	0.000	0.015
% R.S.D.	117.308	39.812	33.575	101.670	15.579

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T000572_L Identity 2: 2ml-8ml-2ml-8ml 11:06 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 25.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.520	0.109	0.118	127.669	305.887	-0.026	0.523	0.043
S.D.	0.029	0.003	0.071	1.614	0.385	0.000	0.004	0.007
% R.S.D.	0.637	3.122	59.766	1.264	0.126	0.592	0.845	17.423

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.279	3.847	0.483	421.588	5.459	4.505	1.144	6.695
S.D.	0.005	0.052	0.039	1.453	0.011	0.007	0.044	1.186
% R.S.D.	1.834	1.357	8.164	0.345	0.204	0.150	3.823	17.708

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	1.799	0.171	1.726	12.850	6.648	1.344	0.116	732.943
S.D.	0.296	0.282	0.004	0.428	0.023	0.004	0.043	0.875
% R.S.D.	16.428	165.113	0.246	3.330	0.349	0.313	37.128	0.119

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.057	0.503	9.513	15.040	0.749	0.243	0.462	3.544
S.D.	0.021	0.228	0.041	0.315	0.004	0.017	0.015	0.292
% R.S.D.	37.125	45.439	0.430	2.094	0.593	7.199	3.192	8.240

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	10.336	-0.957	0.085	0.012	1.748
S.D.	0.045	0.212	0.024	0.003	0.359
% R.S.D.	0.434	22.131	28.422	27.145	20.508

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T000572 Identity 2: 2ml-8ml 11:09 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.480	0.105	-0.187	134.653	307.380	0.054	0.501	0.034
S.D.	0.009	0.000	0.057	0.566	1.416	0.015	0.002	0.002
% R.S.D.	0.195	0.475	30.326	0.420	0.461	27.490	0.446	6.375

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.239	3.873	0.350	417.079	5.232	4.559	0.907	4.191
S.D.	0.001	0.012	0.008	1.151	0.008	0.024	0.006	0.187
% R.S.D.	0.381	0.299	2.201	0.276	0.157	0.523	0.659	4.455

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	1.224	0.157	1.710	13.163	6.702	1.336	-0.030	706.773
S.D.	0.064	0.020	0.002	0.058	0.013	0.005	0.011	1.157
% R.S.D.	5.204	12.691	0.108	0.439	0.195	0.383	38.359	0.164

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.079	0.332	8.398	15.099	0.739	0.237	0.423	3.626
S.D.	0.001	0.006	0.009	0.064	0.004	0.002	0.011	0.079
% R.S.D.	0.889	1.912	0.110	0.421	0.509	0.728	2.653	2.183

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	10.376	0.566	0.057	0.013	0.021
S.D.	0.023	0.191	0.003	0.001	0.082
% R.S.D.	0.218	33.814	4.421	8.182	381.740

Identity 1: S96T000572_D Identity 2: 2ml-8ml 11:12 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.514	0.104	-0.244	134.974	308.137	0.039	0.489	0.029
S.D.	0.007	0.000	0.013	0.453	1.927	0.015	0.001	0.001
% R.S.D.	0.148	0.315	5.321	0.336	0.625	38.005	0.240	3.394

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.226	3.828	0.367	418.289	5.282	4.483	0.862	4.513
S.D.	0.002	0.023	0.007	0.501	0.008	0.002	0.032	0.130
% R.S.D.	1.096	0.592	1.886	0.120	0.155	0.040	3.688	2.878

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	1.008	0.193	1.726	13.178	6.700	1.334	0.006	712.657
S.D.	0.062	0.042	0.004	0.145	0.042	0.003	0.032	5.554
% R.S.D.	6.149	21.719	0.258	1.101	0.630	0.219	542.900	0.779

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.066	0.236	8.438	15.076	0.744	0.225	0.421	3.277
S.D.	0.005	0.057	0.108	0.043	0.002	0.004	0.006	0.054
% R.S.D.	8.241	24.320	1.278	0.283	0.229	1.648	1.318	1.646

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	10.378	-0.481	0.038	0.011	-0.194
S.D.	0.021	0.219	0.003	0.001	0.044
% R.S.D.	0.205	45.648	6.942	5.956	22.884

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T000572_S Identity 2: 2ml-8ml 11:16 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 5.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	13.503	4.885	4.447	125.395	318.848	4.805	5.109	4.733
S.D.	0.040	0.024	0.064	0.502	2.134	0.023	0.019	0.037
% R.S.D.	0.299	0.496	1.434	0.401	0.669	0.475	0.372	0.776

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.796	8.316	5.159	417.721	10.340	9.165	5.742	14.594
S.D.	0.010	0.039	0.039	0.568	0.039	0.028	0.080	0.058
% R.S.D.	0.212	0.466	0.749	0.136	0.374	0.308	1.396	0.399

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	6.173	4.950	6.571	19.281	11.429	5.905	4.797	799.484
S.D.	0.021	0.011	0.033	0.115	0.093	0.014	0.049	6.452
% R.S.D.	0.341	0.212	0.499	0.598	0.810	0.244	1.022	0.807

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.739	4.945	9.124	19.220	5.220	4.852	5.195	7.870
S.D.	0.024	0.018	0.067	0.079	0.021	0.027	0.018	0.105
% R.S.D.	0.511	0.358	0.737	0.410	0.394	0.559	0.339	1.340

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	15.073	4.760	4.771	4.891	4.383
S.D.	0.032	0.100	0.013	0.016	0.116
% R.S.D.	0.209	2.107	0.267	0.327	2.649

Identity 1: ICSA Identity 2: Quality Control 11:19 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.004	0.002	-0.033	0.051	199.530	-0.001	0.002	0.001
S.D.	0.001	0.000	0.008	0.003	0.765	0.003	0.000	0.000
% R.S.D.	37.023	3.646	25.900	5.312	0.384	435.984	26.317	45.778

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.004	0.002	0.010	96.201	102.307	0.002	-0.021	0.087
S.D.	0.000	0.001	0.001	0.072	0.325	0.001	0.011	0.053
% R.S.D.	9.882	43.121	7.851	0.075	0.317	74.822	53.207	60.591

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.022	0.057	0.004	0.054	0.063	97.129	0.052	194.388
S.D.	0.012	0.011	0.000	0.012	0.005	0.288	0.008	1.109
% R.S.D.	53.597	19.188	7.872	22.866	8.544	0.297	14.839	0.571

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.000	-0.049	0.313	-0.016	0.002	0.000	0.014	0.088
S.D.	0.000	0.028	0.014	0.006	0.001	0.000	0.001	0.022
% R.S.D.	160.705	57.137	4.328	39.442	36.100	55.863	7.784	25.013

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.003	0.001	-0.001	0.003	-0.028
S.D.	0.000	0.020	0.000	0.000	0.018
% R.S.D.	10.932	1625.666	73.929	8.093	63.128

WHC-SD-WM-DP-183, REV. 0

Identity 1: ICSAB Identity 2: Quality Control 11:23 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	0.002	-0.035	0.032	200.186	0.486	0.506	0.959
S.D.	0.001	0.000	0.007	0.001	0.439	0.003	0.001	0.001
% R.S.D.	97.823	4.499	18.754	2.953	0.219	0.709	0.121	0.150

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.997	0.979	0.013	96.324	102.440	0.503	-0.021	0.161
S.D.	0.003	0.005	0.003	0.100	0.243	0.001	0.010	0.022
% R.S.D.	0.348	0.504	24.230	0.103	0.237	0.194	49.611	13.815

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.026	0.073	0.516	0.049	0.069	97.166	0.048	195.771
S.D.	0.009	0.007	0.001	0.007	0.009	0.335	0.011	0.358
% R.S.D.	32.369	9.558	0.237	13.716	13.485	0.345	22.541	0.183

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.000	0.043	1.181	0.990	0.002	1.004	0.015	0.033
S.D.	0.000	0.007	0.015	0.014	0.000	0.004	0.001	0.003
% R.S.D.	505.027	15.230	1.296	1.457	11.810	0.424	4.235	8.995

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.505	-0.047	0.498	0.507	-0.019
S.D.	0.001	0.023	0.002	0.000	0.006
% R.S.D.	0.157	49.502	0.423	0.045	34.244

WHC-SD-WM-DP-183, REV. 0

Identity 1: CCV Identity 2: Quality Control 11:26 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.010	5.072	4.984	4.803	4.997	5.024	5.165	5.136
S.D.	0.012	0.014	0.011	0.011	0.016	0.016	0.015	0.033
% R.S.D.	0.232	0.268	0.224	0.236	0.324	0.327	0.299	0.642

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.013	4.987	5.075	5.082	5.073	5.012	5.233	9.734
S.D.	0.005	0.011	0.013	0.017	0.018	0.009	0.034	0.015
% R.S.D.	0.100	0.227	0.255	0.334	0.352	0.187	0.643	0.159

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.155	5.166	5.107	5.043	4.959	4.914	5.109	5.119
S.D.	0.024	0.013	0.015	0.082	0.065	0.012	0.017	0.054
% R.S.D.	0.462	0.249	0.290	1.635	1.304	0.247	0.341	1.053

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.043	5.314	4.843	4.990	4.957	4.994	5.113	5.043
S.D.	0.021	0.022	0.132	0.023	0.013	0.010	0.014	0.026
% R.S.D.	0.418	0.406	2.727	0.462	0.265	0.209	0.280	0.514

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.007	4.741	5.090	5.222	4.842
S.D.	0.008	0.044	0.011	0.011	0.026
% R.S.D.	0.158	0.933	0.220	0.211	0.541

Identity 1: CCB Identity 2: Quality Control 11:30 AM April 26, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.000	0.000	-0.004	0.005	0.001	-0.005	0.000	0.000
S.D.	0.001	0.000	0.013	0.001	0.002	0.002	0.000	0.000
% R.S.D.	91877.254	54877914819.000	316.633	14.732	184.624	34.697	53.754	44.411

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.000	-0.002	0.002	0.002	-0.001	-0.003	0.004
S.D.	0.000	0.002	0.000	0.002	0.001	0.001	0.002	0.034
% R.S.D.	85.290	1545.292	0.857	104.698	76.349	57.509	71.114	935.892

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.013	-0.004	0.000	0.015	-0.005	0.002	-0.008	0.020
S.D.	0.012	0.008	0.000	0.005	0.001	0.001	0.004	0.002
% R.S.D.	98.163	187.647	48.038	30.949	26.560	64.356	46.676	12.000

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.023	0.188	-0.036	0.000	-0.001	0.004	0.051
S.D.	0.001	0.007	0.006	0.004	0.000	0.000	0.001	0.004
% R.S.D.	131.213	27.861	3.168	10.740	150.577	52.146	26.449	7.768

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.000	0.026	-0.002	-0.000	0.001
S.D.	0.000	0.006	0.001	0.000	0.018
% R.S.D.	449.823	24.241	56.530	35.817	2982.510

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WHC-SD-WM-DP-183, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist# 6964

Analyst: B. GOECKE **Instrument:** ICP01 _____ **Book#** 53848A

Method: LA-505-151/~~161~~ 8V 4-24-96 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
~~5~~	~~SERDIL~~	~~S96T001544~~ 4-24-96	~~0~~	D	@ICP-D01	LIQUID		
~~6~~	~~SAMPLE~~	~~S96T001544~~ 4-24-96	~~0~~	D	@ICP-D01	LIQUID	96000082	C-106 GRAB
	Analytes Requested:				AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			
7	~~DUP~~	~~S96T001544~~ 4-24-96	~~0~~	D	@ICP-D01	LIQUID		
8	~~SPK~~	~~S96T001544~~ 4-24-96	~~0~~	D	@ICP-D01	LIQUID		
~~9~~	~~CCV~~ 4-24-96				@ICP-QC	QC		
~~10~~	~~CCB~~ 4-24-96				@ICP-QC	QC		
11	SERDIL	S96T001566	0	D	@ICP-D01	LIQUID		
12	SAMPLE	S96T001566	0	D	@ICP-D01	LIQUID	96000174	C-106 GRAB
	Analytes Requested:				AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 6964

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
13	DUP	S96T001566	0	D	@ICP-D01	LIQUID		
14	SPK	S96T001566	0	D	@ICP-D01	LIQUID		
15	ICSA				@ICP-QC	QC		
16	ICSAB				@ICP-QC	QC		
17	CCV				@ICP-QC	QC		
18	CCB				@ICP-QC	QC		

Final page for worklist # 6964

Analyst Signature 4-26-96 Date

Reviewed by:
Analyst Signature 4/26/96 Date

		D.F.
S96T001566 - C	.025mL - 10mL - 2mL - 8mL	2005
S96T001566	.025mL - 10mL	401
S96T001566 - D	.025mL - 10mL	401
S96T001566 - A	.025mL - 2mL - 8mL	401

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 6964

Analyst: bjg **Instrument:** ICP01 **Book#** 53B48A

Method: LA-505-171 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	ICV		0		●ICP-QC	AG	QC	5.0	4.87e+00	97.400 % Recovery
1	ICV		0		●ICP-QC	AL	QC	5.0	4.81e+00	96.200 % Recovery
1	ICV		0		●ICP-QC	AS	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	B	QC	5.0	5.05e+00	101.000 % Recovery
1	ICV		0		●ICP-QC	BA	QC	5.0	4.88e+00	97.600 % Recovery
1	ICV		0		●ICP-QC	BE	QC	5.0	5.13e+00	102.600 % Recovery
1	ICV		0		●ICP-QC	BI	QC	5.0	4.93e+00	98.600 % Recovery
1	ICV		0		●ICP-QC	CA	QC	5.0	4.91e+00	98.200 % Recovery
1	ICV		0		●ICP-QC	CD	QC	5.0	5.01e+00	100.200 % Recovery
1	ICV		0		●ICP-QC	CE	QC	5.0	4.93e+00	98.600 % Recovery
1	ICV		0		●ICP-QC	CO	QC	5.0	4.98e+00	99.600 % Recovery
1	ICV		0		●ICP-QC	CR	QC	5.0	5.00e+00	100.000 % Recovery
1	ICV		0		●ICP-QC	CU	QC	5.0	4.95e+00	99.000 % Recovery
1	ICV		0		●ICP-QC	FE	QC	5.0	5.16e+00	103.200 % Recovery
1	ICV		0		●ICP-QC	K	QC	5.0	4.89e+00	97.800 % Recovery
1	ICV		0		●ICP-QC	LA	QC	5.0	4.98e+00	99.600 % Recovery
1	ICV		0		●ICP-QC	LI	QC	5.0	4.75e+00	95.000 % Recovery
1	ICV		0		●ICP-QC	MG	QC	5.0	4.83e+00	96.600 % Recovery
1	ICV		0		●ICP-QC	MN	QC	5.0	5.00e+00	100.000 % Recovery
1	ICV		0		●ICP-QC	MO	QC	5.0	4.91e+00	98.200 % Recovery
1	ICV		0		●ICP-QC	NA	QC	5.0	4.79e+00	95.800 % Recovery
1	ICV		0		●ICP-QC	ND	QC	5.0	5.23e+00	104.600 % Recovery
1	ICV		0		●ICP-QC	NI	QC	5.0	4.99e+00	99.800 % Recovery
1	ICV		0		●ICP-QC	P	QC	5.0	5.61e+00	112.200 % Recovery
1	ICV		0		●ICP-QC	PB	QC	5.0	5.03e+00	100.600 % Recovery
1	ICV		0		●ICP-QC	S	QC	5.0	4.98e+00	99.600 % Recovery
1	ICV		0		●ICP-QC	SB	QC	5.0	5.28e+00	105.600 % Recovery
1	ICV		0		●ICP-QC	SE	QC	5.0	5.03e+00	100.600 % Recovery
1	ICV		0		●ICP-QC	SI	QC	5.0	4.72e+00	94.400 % Recovery
1	ICV		0		●ICP-QC	SM	QC	5.0	4.94e+00	98.800 % Recovery
1	ICV		0		●ICP-QC	SR	QC	5.0	4.89e+00	97.800 % Recovery
1	ICV		0		●ICP-QC	TI	QC	5.0	4.78e+00	95.600 % Recovery
1	ICV		0		●ICP-QC	TL	QC	5.0	4.73e+00	94.600 % Recovery
1	ICV		0		●ICP-QC	U	QC	10.0	9.56e+00	95.600 % Recovery
1	ICV		0		●ICP-QC	V	QC	5.0	5.07e+00	101.400 % Recovery
1	ICV		0		●ICP-QC	ZN	QC	5.0	5.04e+00	100.800 % Recovery
1	ICV		0		●ICP-QC	ZR	QC	5.0	4.94e+00	98.800 % Recovery
2	ICB		0		●ICP-QC	AG	QC	1	<1.00e-2	ug/g
2	ICB		0		●ICP-QC	AL	QC	1	<5.00e-2	ug/g
2	ICB		0		●ICP-QC	AS	QC	1	<1.00e-1	ug/g
2	ICB		0		●ICP-QC	B	QC	1	<5.00e-2	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
2	ICB		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
2	ICB		0	●ICP-QC	BI	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CA	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
2	ICB		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
2	ICB		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	FE	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
2	ICB		0	●ICP-QC	LA	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	LI	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	MG	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	MN	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	MO	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	NA	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	ND	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	NI	QC	1	<2.00e-2		ug/g
2	ICB		0	●ICP-QC	P	QC	1	<2.00e-1		ug/g
2	ICB		0	●ICP-QC	PB	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	S	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
2	ICB		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	TL	QC	1	<2.00e-1		ug/g
2	ICB		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
2	ICB		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	AG	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	AL	QC	200	1.97e+02	98.500	% Recovery
3	ICSA		0	●ICP-QC	AS	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	B	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
3	ICSA		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	CA	QC	100.	1.03e+02	103.000	% Recovery
3	ICSA		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
3	ICSA		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
3	ICSA		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	FE	QC	100.	9.88e+01	98.800	% Recovery
3	ICSA		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
3	ICSA		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
3	ICSA	0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
3	ICSA	0		●ICP-QC	MG	QC	100.	1.00e+02	100.000	% Recovery
3	ICSA	0		●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
3	ICSA	0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
3	ICSA	0		●ICP-QC	NA	QC	200	1.88e+02	94.000	% Recovery
3	ICSA	0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
3	ICSA	0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
3	ICSA	0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
3	ICSA	0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
3	ICSA	0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
3	ICSA	0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
3	ICSA	0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
3	ICSA	0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
3	ICSA	0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
3	ICSA	0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
3	ICSA	0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
3	ICSA	0		●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
3	ICSA	0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
3	ICSA	0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
3	ICSA	0		●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
3	ICSA	0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
4	ICSAB	0		●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB	0		●ICP-QC	AL	QC	200	1.96e+02	98.000	% Recovery
4	ICSAB	0		●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
4	ICSAB	0		●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
4	ICSAB	0		●ICP-QC	BA	QC	0.5	5.03e-01	100.600	% Recovery
4	ICSAB	0		●ICP-QC	BE	QC	0.5	5.05e-01	101.000	% Recovery
4	ICSAB	0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
4	ICSAB	0		●ICP-QC	CA	QC	100.	1.02e+02	102.000	% Recovery
4	ICSAB	0		●ICP-QC	CD	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB	0		●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
4	ICSAB	0		●ICP-QC	CO	QC	0.5	4.86e-01	97.200	% Recovery
4	ICSAB	0		●ICP-QC	CR	QC	0.5	5.06e-01	101.200	% Recovery
4	ICSAB	0		●ICP-QC	CU	QC	0.5	4.94e-01	98.800	% Recovery
4	ICSAB	0		●ICP-QC	FE	QC	100	9.86e+01	98.600	% Recovery
4	ICSAB	0		●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
4	ICSAB	0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
4	ICSAB	0		●ICP-QC	LI	QC	1.0	9.06e-01	90.600	% Recovery
4	ICSAB	0		●ICP-QC	MG	QC	100.	1.01e+02	101.000	% Recovery
4	ICSAB	0		●ICP-QC	MN	QC	0.5	5.05e-01	101.000	% Recovery
4	ICSAB	0		●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
4	ICSAB	0		●ICP-QC	NA	QC	200	1.87e+02	93.500	% Recovery
4	ICSAB	0		●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
4	ICSAB	0		●ICP-QC	NI	QC	1.0	9.84e-01	98.400	% Recovery
4	ICSAB	0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
4	ICSAB	0		●ICP-QC	PB	QC	1.0	9.79e-01	97.900	% Recovery
4	ICSAB	0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
4	ICSAB	0		●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
4	ICSAB	0		●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit
4	ICSAB		0		●ICP-QC	SI	QC	1.0		<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	SM	QC	1.0		<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	SR	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	TI	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	TL	QC	1.0		<2.00e-1		ug/g
4	ICSAB		0		●ICP-QC	U	QC	1.0		<5.00e-1		ug/g
4	ICSAB		0		●ICP-QC	V	QC	0.5		4.98e-01	99.600	% Recovery
4	ICSAB		0		●ICP-QC	ZN	QC	1.0		1.00e+00	100.000	% Recovery
4	ICSAB		0		●ICP-QC	ZR	QC	1.0		<1.00e-2		ug/g
5	SAMPLE	S96T001566	0	D	●ICP-D01	AG-D-01	LIQUID	N/A		8.51e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	AL-D-01	LIQUID	N/A		4.81e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	AS-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	B-D-01	LIQUID	N/A		3.21e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	BA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	BE-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	BI-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	CA-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	CD-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	CE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	CO-D-01	LIQUID	N/A	<	8.02e+00	8.020	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	CR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	CU-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	FE-D-01	LIQUID	N/A		5.28e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	K-D-01	LIQUID	N/A		6.71e+02	200.000	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	LA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	LI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	MG-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	MN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	MO-D-01	LIQUID	N/A		2.24e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	NA-D-01	LIQUID	N/A		1.13e+05	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	ND-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	NI-D-01	LIQUID	N/A		1.52e+01	8.020	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	P-D-01	LIQUID	N/A		3.68e+02	80.200	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	PB-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	S-D-01	LIQUID	N/A		2.73e+03	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	SB-D-01	LIQUID	N/A	<	2.41e+01	24.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	SE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	SI-D-01	LIQUID	N/A		1.18e+02	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	SM-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	SR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	TI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	TL-D-01	LIQUID	N/A	<	8.02e+01	80.200	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	U-D-01	LIQUID	N/A		1.87e+03	200.000	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	V-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	ZN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001566	0	D	●ICP-D01	ZR-D-01	LIQUID	N/A		3.79e+02	4.010	ug/mL
6	DUP	S96T001566	0	D	●ICP-D01	AG-D-01	LIQUID	8.51e+00		9.27e+00	8.549	RPD
6	DUP	S96T001566	0	D	●ICP-D01	AL-D-01	LIQUID	4.81e+01		6.69e+01	32.696	RPD
6	DUP	S96T001566	0	D	●ICP-D01	AS-D-01	LIQUID	<4.01e1		<4.01e1		RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	DUP	S96T001566	0	D	●ICP-D01 B-D-01	LIQUID	3.21e+01	3.24e+01	0.930	RPD
6	DUP	S96T001566	0	D	●ICP-D01 BA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 BE-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 BI-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 CA-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 CD-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 CE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 CO-D-01	LIQUID	<8.02e0	<8.02e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 CR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 CU-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 FE-D-01	LIQUID	5.28e+01	6.47e+01	20.255	RPD
6	DUP	S96T001566	0	D	●ICP-D01 K-D-01	LIQUID	6.71e+02	6.34e+02	5.670	RPD
6	DUP	S96T001566	0	D	●ICP-D01 LA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 LI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 MG-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 MN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 MO-D-01	LIQUID	2.24e+01	2.27e+01	1.330	RPD
6	DUP	S96T001566	0	D	●ICP-D01 NA-D-01	LIQUID	1.13e+05	1.10e+05	2.691	RPD
6	DUP	S96T001566	0	D	●ICP-D01 ND-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 NI-D-01	LIQUID	1.52e+01	1.50e+01	1.325	RPD
6	DUP	S96T001566	0	D	●ICP-D01 P-D-01	LIQUID	3.68e+02	3.93e+02	6.570	RPD
6	DUP	S96T001566	0	D	●ICP-D01 PB-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 S-D-01	LIQUID	2.73e+03	2.71e+03	0.735	RPD
6	DUP	S96T001566	0	D	●ICP-D01 SB-D-01	LIQUID	<2.41e1	<2.41e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 SE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 SI-D-01	LIQUID	1.18e+02	1.24e+02	4.959	RPD
6	DUP	S96T001566	0	D	●ICP-D01 SM-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 SR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 TL-D-01	LIQUID	<8.02e1	<8.02e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 U-D-01	LIQUID	1.87e+03	1.83e+03	2.162	RPD
6	DUP	S96T001566	0	D	●ICP-D01 V-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001566	0	D	●ICP-D01 ZN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001566	0	D	●ICP-D01 ZR-D-01	LIQUID	3.79e+02	3.75e+02	1.061	RPD
6	DUP	S96T001566	0	D	●ICP-D01 TI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
7	SPK	S96T001566	0	D	●ICP-D01 AG-D-01	LIQUID	1	0.922	92.200	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 AL-D-01	LIQUID	1	0.900	90.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 AS-D-01	LIQUID	1	1.062	106.200	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 B-D-01	LIQUID	1	0.982	98.200	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 BA-D-01	LIQUID	1	1.000	100.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 BE-D-01	LIQUID	1	1.025	102.500	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 BI-D-01	LIQUID	1	0.900	90.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 CA-D-01	LIQUID	1	1.008	100.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 CD-D-01	LIQUID	1	0.968	96.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 CE-D-01	LIQUID	1	0.968	96.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 CO-D-01	LIQUID	1	0.970	97.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 CR-D-01	LIQUID	1	0.983	98.300	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 CU-D-01	LIQUID	1	0.993	99.300	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 FE-D-01	LIQUID	1	0.988	98.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01 K-D-01	LIQUID	1	0.821	82.100	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
7	SPK	S96T001566	0	D	●ICP-D01	LA-D-01	LIQUID	1	1.005	100.500	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	LI-D-01	LIQUID	1	0.910	91.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	MG-D-01	LIQUID	1	0.943	94.300	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	MN-D-01	LIQUID	1	0.990	99.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	MO-D-01	LIQUID	1	0.982	98.200	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	NA-D-01	LIQUID	1	<1.00e-1		% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	ND-D-01	LIQUID	1	1.052	105.200	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	NI-D-01	LIQUID	1	0.977	97.700	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	P-D-01	LIQUID	1	1.219	121.900	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	PB-D-01	LIQUID	1	1.028	102.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	S-D-01	LIQUID	1	0.851	85.100	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	SB-D-01	LIQUID	1	0.843	84.300	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	SE-D-01	LIQUID	1	1.170	117.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	SI-D-01	LIQUID	1	0.908	90.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	SM-D-01	LIQUID	1	1.028	102.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	SR-D-01	LIQUID	1	1.003	100.300	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	TL-D-01	LIQUID	1	0.865	86.500	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	U-D-01	LIQUID	2	1.997	99.850	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	V-D-01	LIQUID	1	1.000	100.000	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	ZN-D-01	LIQUID	1	0.968	96.800	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	ZR-D-01	LIQUID	1	0.999	99.900	% Recovery
7	SPK	S96T001566	0	D	●ICP-D01	TI-D-01	LIQUID	1	0.968	96.800	% Recovery
8	ICSA		0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	AL	QC	200	2.00e+02	100.000	% Recovery
8	ICSA		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
8	ICSA		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	CA	QC	100.	1.05e+02	105.000	% Recovery
8	ICSA		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
8	ICSA		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
8	ICSA		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	FE	QC	100.	9.97e+01	99.700	% Recovery
8	ICSA		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
8	ICSA		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	MG	QC	100.	1.02e+02	102.000	% Recovery
8	ICSA		0		●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	NA	QC	200	1.90e+02	95.000	% Recovery
8	ICSA		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
8	ICSA		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
8	ICSA		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
8	ICSA		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
8	ICSA		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
8	ICSA		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
8	ICSA		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
8	ICSA		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
8	ICSA		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
8	ICSA		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
8	ICSA		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
8	ICSA		0	●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
8	ICSA		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
9	ICSAB		0	●ICP-QC	AG	QC	1.0	1.02e+00	102.000	% Recovery
9	ICSAB		0	●ICP-QC	AL	QC	200	2.00e+02	100.000	% Recovery
9	ICSAB		0	●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	BA	QC	0.5	5.15e-01	103.000	% Recovery
9	ICSAB		0	●ICP-QC	BE	QC	0.5	5.13e-01	102.600	% Recovery
9	ICSAB		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	CA	QC	100.	1.04e+02	104.000	% Recovery
9	ICSAB		0	●ICP-QC	CD	QC	1.0	1.02e+00	102.000	% Recovery
9	ICSAB		0	●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	CO	QC	0.5	4.98e-01	99.600	% Recovery
9	ICSAB		0	●ICP-QC	CR	QC	0.5	5.09e-01	101.800	% Recovery
9	ICSAB		0	●ICP-QC	CU	QC	0.5	5.04e-01	100.800	% Recovery
9	ICSAB		0	●ICP-QC	FE	QC	100	9.97e+01	99.700	% Recovery
9	ICSAB		0	●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
9	ICSAB		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	LI	QC	1.0	9.22e-01	92.200	% Recovery
9	ICSAB		0	●ICP-QC	MG	QC	100.	1.02e+02	102.000	% Recovery
9	ICSAB		0	●ICP-QC	MN	QC	0.5	5.10e-01	102.000	% Recovery
9	ICSAB		0	●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	NA	QC	200	1.90e+02	95.000	% Recovery
9	ICSAB		0	●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	NI	QC	1.0	1.00e+00	100.000	% Recovery
9	ICSAB		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
9	ICSAB		0	●ICP-QC	PB	QC	1.0	1.01e+00	101.000	% Recovery
9	ICSAB		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
9	ICSAB		0	●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	SI	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	SM	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	SR	QC	1.0	<1.00e-2		ug/g
9	ICSAB		0	●ICP-QC	TI	QC	1.0	<1.00e-2		ug/g
9	ICSAB		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
9	ICSAB		0	●ICP-QC	U	QC	1.0	<5.00e-1		ug/g
9	ICSAB		0	●ICP-QC	V	QC	0.5	5.06e-01	101.200	% Recovery
9	ICSAB		0	●ICP-QC	ZN	QC	1.0	1.01e+00	101.000	% Recovery
9	ICSAB		0	●ICP-QC	ZR	QC	1.0	<1.00e-2		ug/g
10	CCV		0	●ICP-QC	AG	QC	5.0	4.98e+00	99.600	% Recovery
10	CCV		0	●ICP-QC	AL	QC	5.0	5.04e+00	100.800	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
10	CCV		0	●ICP-QC	AS	QC	5.0	5.16e+00	103.200	% Recovery
10	CCV		0	●ICP-QC	B	QC	5.0	5.12e+00	102.400	% Recovery
10	CCV		0	●ICP-QC	BA	QC	5.0	5.03e+00	100.600	% Recovery
10	CCV		0	●ICP-QC	BE	QC	5.0	5.23e+00	104.600	% Recovery
10	CCV		0	●ICP-QC	BI	QC	5.0	5.08e+00	101.600	% Recovery
10	CCV		0	●ICP-QC	CA	QC	5.0	5.03e+00	100.600	% Recovery
10	CCV		0	●ICP-QC	CD	QC	5.0	5.09e+00	101.800	% Recovery
10	CCV		0	●ICP-QC	CE	QC	5.0	5.20e+00	104.000	% Recovery
10	CCV		0	●ICP-QC	CO	QC	5.0	5.14e+00	102.800	% Recovery
10	CCV		0	●ICP-QC	CR	QC	5.0	5.11e+00	102.200	% Recovery
10	CCV		0	●ICP-QC	CU	QC	5.0	5.07e+00	101.400	% Recovery
10	CCV		0	●ICP-QC	FE	QC	5.0	5.22e+00	104.400	% Recovery
10	CCV		0	●ICP-QC	K	QC	5.0	4.93e+00	98.600	% Recovery
10	CCV		0	●ICP-QC	LA	QC	5.0	5.07e+00	101.400	% Recovery
10	CCV		0	●ICP-QC	LI	QC	5.0	4.87e+00	97.400	% Recovery
10	CCV		0	●ICP-QC	MG	QC	5.0	5.00e+00	100.000	% Recovery
10	CCV		0	●ICP-QC	MN	QC	5.0	5.08e+00	101.600	% Recovery
10	CCV		0	●ICP-QC	MO	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV		0	●ICP-QC	NA	QC	5.0	5.00e+00	100.000	% Recovery
10	CCV		0	●ICP-QC	ND	QC	5.0	5.24e+00	104.800	% Recovery
10	CCV		0	●ICP-QC	NI	QC	5.0	5.09e+00	101.800	% Recovery
10	CCV		0	●ICP-QC	P	QC	5.0	5.74e+00	114.800	% Recovery
10	CCV		0	●ICP-QC	PB	QC	5.0	5.04e+00	100.800	% Recovery
10	CCV		0	●ICP-QC	S	QC	5.0	5.19e+00	103.800	% Recovery
10	CCV		0	●ICP-QC	SB	QC	5.0	4.79e+00	95.800	% Recovery
10	CCV		0	●ICP-QC	SE	QC	5.0	5.27e+00	105.400	% Recovery
10	CCV		0	●ICP-QC	SI	QC	5.0	4.85e+00	97.000	% Recovery
10	CCV		0	●ICP-QC	SM	QC	5.0	5.07e+00	101.400	% Recovery
10	CCV		0	●ICP-QC	SR	QC	5.0	5.05e+00	101.000	% Recovery
10	CCV		0	●ICP-QC	TI	QC	5.0	4.93e+00	98.600	% Recovery
10	CCV		0	●ICP-QC	TL	QC	5.0	4.86e+00	97.200	% Recovery
10	CCV		0	●ICP-QC	U	QC	10.0	9.85e+00	98.500	% Recovery
10	CCV		0	●ICP-QC	V	QC	5.0	5.18e+00	103.600	% Recovery
10	CCV		0	●ICP-QC	ZN	QC	5.0	5.16e+00	103.200	% Recovery
10	CCV		0	●ICP-QC	ZR	QC	5.0	5.05e+00	101.000	% Recovery
11	CCB		0	●ICP-QC	AG	QC	1	<1.00e-2		ug/g
11	CCB		0	●ICP-QC	AL	QC	1	<5.00e-2		ug/g
11	CCB		0	●ICP-QC	AS	QC	1	<1.00e-1		ug/g
11	CCB		0	●ICP-QC	B	QC	1	<5.00e-2		ug/g
11	CCB		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
11	CCB		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
11	CCB		0	●ICP-QC	BI	QC	1	<1.00e-1		ug/g
11	CCB		0	●ICP-QC	CA	QC	1	<1.00e-1		ug/g
11	CCB		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
11	CCB		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
11	CCB		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
11	CCB		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
11	CCB		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
11	CCB		0	●ICP-QC	FE	QC	1	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 6964

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
11	CCB		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
11	CCB		0		●ICP-QC	LA	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	MG	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	MN	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	NA	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
11	CCB		0		●ICP-QC	P	QC	1	<2.00e-1		ug/g
11	CCB		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	S	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
11	CCB		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	TL	QC	1	<2.00e-1		ug/g
11	CCB		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
11	CCB		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g

Final page for worklist# 6964

Analyst Signature Date

Analyst Signature Date

Reviewer Signature Date 4/26/96

Units shown for QC (BLK/BKG) may not reflect the actual units.

Identity 1: ICV Identity 2: Quality Control 1:58 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.935	4.892	4.929	4.720	4.811	4.981	4.953	4.745
S.D.	0.007	0.012	0.004	0.005	0.015	0.017	0.010	0.015
% R.S.D.	0.150	0.245	0.088	0.103	0.307	0.333	0.204	0.307

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.036	4.993	4.981	5.157	4.905	4.999	5.228	9.555
S.D.	0.008	0.011	0.015	0.036	0.011	0.019	0.012	0.008
% R.S.D.	0.166	0.217	0.294	0.692	0.225	0.386	0.238	0.080

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	4.935	4.938	4.881	5.615	4.979	4.829	5.016	4.786
S.D.	0.004	0.004	0.012	0.067	0.033	0.007	0.032	0.021
% R.S.D.	0.072	0.081	0.242	1.195	0.663	0.138	0.638	0.448

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.913	5.034	4.875	5.030	4.776	5.012	5.047	4.885
S.D.	0.001	0.038	0.002	0.020	0.012	0.011	0.012	0.031
% R.S.D.	0.015	0.746	0.036	0.397	0.251	0.211	0.246	0.639

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.998	5.285	5.069	5.127	4.733
S.D.	0.004	0.923	0.006	0.010	0.003
% R.S.D.	0.090	17.463	0.124	0.194	0.059

[signature]
4-24-96
C-106 ACID DIL.
S96T001566
.025-1-10-C
FILE # 960424B.DAT

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 790 TO 801.

Identity 1: ICB Identity 2: Quality Control 2:03 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	-0.000	0.021	0.006	-0.010	-0.008	-0.001	0.000
S.D.	0.001	0.000	0.011	0.003	0.012	0.002	0.001	0.000
% R.S.D.	115.362	43.301	50.336	56.918	118.683	21.617	44.678	1373.773

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.004	0.003	-0.003	-0.004	-0.000	-0.012	0.037
S.D.	0.001	0.003	0.003	0.002	0.000	0.002	0.001	0.014
% R.S.D.	116.048	82.874	103.477	86.625	3.021	856.429	11.810	39.498

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.012	0.022	-0.000	0.005	0.004	-0.000	-0.010	0.000
S.D.	0.010	0.005	0.000	0.008	0.002	0.000	0.004	0.003
% R.S.D.	79.928	22.005	120.185	164.873	39.606	57.735	41.989	5305618.679

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.003	-0.031	-0.002	-0.001	0.000	-0.001	0.003	-0.018
S.D.	0.000	0.019	0.001	0.016	0.001	0.001	0.001	0.019
% R.S.D.	5.454	60.595	55.326	1184.828	157.233	46.813	32.725	105.294

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.000	0.034	-0.002	0.000	-0.047
S.D.	0.000	0.014	0.001	0.000	0.017
% R.S.D.	113.974	40.437	35.503	429.995	35.468

Identity 1: ICSA Identity 2: Quality Control 2:05 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	0.002	-0.024	0.014	196.682	-0.001	0.001	0.001
S.D.	0.001	0.000	0.016	0.002	0.155	0.002	0.001	0.000
% R.S.D.	121.485	6.644	65.045	11.817	0.079	220.036	75.058	38.153

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.004	0.008	0.009	98.758	103.362	0.004	-0.020	-0.021
S.D.	0.000	0.001	0.001	0.089	0.158	0.002	0.003	0.062
% R.S.D.	11.485	16.719	8.970	0.090	0.153	38.636	13.563	299.164

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.008	0.017	0.004	0.041	0.070	100.094	0.072	188.162
S.D.	0.014	0.013	0.000	0.020	0.019	0.413	0.003	1.257
% R.S.D.	166.479	73.866	8.767	50.290	27.399	0.412	4.470	0.668

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.005	-0.048	0.000	-0.020	0.000	-0.004	0.014	-0.067
S.D.	0.001	0.006	0.001	0.009	0.001	0.000	0.001	0.021
% R.S.D.	21.028	11.789	192.023	43.248	915.524	4.366	5.260	31.089

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.002	0.007	-0.002	0.003	0.004
S.D.	0.000	0.028	0.001	0.000	0.013
% R.S.D.	21.403	381.863	54.998	4.825	311.788

WHC-SD-WM-DP-183, REV. 0

Identity 1: ICSA8 Identity 2: Quality Control 2:08 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.002	0.002	-0.012	0.016	195.527	0.486	0.494	0.906
S.D.	0.001	0.000	0.006	0.004	0.900	0.004	0.002	0.004
% R.S.D.	29.686	3.448	48.032	24.201	0.460	0.742	0.346	0.394

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.000	0.984	0.004	98.622	102.490	0.506	-0.026	-0.040
S.D.	0.003	0.008	0.001	0.207	0.447	0.004	0.004	0.034
% R.S.D.	0.276	0.763	20.654	0.210	0.436	0.841	13.524	86.239

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.000	0.039	0.503	0.042	0.077	100.732	0.069	186.623
S.D.	0.006	0.007	0.002	0.004	0.006	0.376	0.007	0.580
% R.S.D.	8734.256	18.244	0.389	9.198	7.499	0.373	9.971	0.311

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.005	0.022	1.008	0.979	-0.000	1.005	0.017	0.006
S.D.	0.002	0.025	0.003	0.004	0.000	0.004	0.001	0.012
% R.S.D.	38.682	115.927	0.285	0.412	410.588	0.436	3.771	184.460

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.505	0.058	0.498	0.505	-0.007
S.D.	0.002	0.012	0.002	0.002	0.017
% R.S.D.	0.312	20.424	0.341	0.460	258.181

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T001566_L Identity 2: .025ml-10ml-2ml-8ml 2:12 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2005.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	382.523	-0.136	4.169	123.320	110.784	-2.341	0.318	0.207
S.D.	2.201	0.272	20.413	3.294	85.479	6.268	0.196	0.676
% R.S.D.	0.575	200.000	489.674	2.671	77.158	267.731	61.605	327.176

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	2.308	18.778	-2.856	94.807	45.993	0.965	-51.957	1936.560
S.D.	1.218	5.427	4.899	44.248	37.755	2.184	8.294	100.675
% R.S.D.	52.788	28.903	171.513	46.672	82.089	226.367	15.964	5.199

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-45.888	27.336	0.468	394.227	2868.027	44.688	-12.567	116347.069
S.D.	32.030	18.468	0.630	33.626	38.473	37.450	4.087	208.133
% R.S.D.	69.801	67.560	134.533	8.530	1.341	83.803	32.519	0.179

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	18.177	-99.498	8.722	38.556	1.419	0.198	35.586	650.494
S.D.	1.474	19.562	1.365	14.823	0.903	0.999	2.231	28.436
% R.S.D.	8.108	19.661	15.655	38.445	63.679	503.754	6.270	4.371

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	2.799	186.560	-6.163	0.871	-33.832
S.D.	0.303	22.655	2.585	0.259	42.310
% R.S.D.	10.811	12.144	41.935	29.751	125.059

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T001566 Identity 2: .025ml-10ml 2:16 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	378.594	0.091	-25.771	117.995	48.071	-3.587	1.281	-0.073
S.D.	1.805	0.016	1.827	1.048	0.184	0.725	0.097	0.047
% R.S.D.	0.477	17.321	7.090	0.888	0.382	20.217	7.593	65.389

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.510	15.202	-2.325	52.818	13.732	-1.185	-1.102	1869.229
S.D.	0.104	0.805	0.324	0.729	0.333	0.360	2.884	8.769
% R.S.D.	20.399	5.296	13.936	1.380	2.423	30.381	261.679	0.469

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-12.490	2.328	0.617	368.337	2728.737	3.210	-0.396	112647.887
S.D.	1.989	2.148	0.037	8.450	19.355	0.183	0.470	196.431
% R.S.D.	15.925	92.266	5.973	2.294	0.709	5.710	118.830	0.174

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	22.402	-25.406	8.513	27.491	0.265	-0.297	32.125	670.799
S.D.	0.223	4.593	0.178	6.983	0.079	0.210	0.123	9.850
% R.S.D.	0.996	18.078	2.089	25.402	29.771	70.500	0.384	1.468

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	3.027	19.917	-5.258	-0.037	-20.329
S.D.	0.068	7.411	0.260	0.001	3.673
% R.S.D.	2.231	37.209	4.942	3.029	18.068

WHC-SD-WM-DP-183, REV. 0

Identity 1: S96T001566_D Identity 2: .025ml-10ml 2:20 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	374.948	0.272	-19.327	123.984	66.943	-1.491	2.102	0.321
S.D.	0.534	0.027	4.161	1.158	2.978	0.724	0.279	0.031
% R.S.D.	0.142	10.000	21.530	0.934	4.449	48.582	13.281	9.679

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.757	14.966	-2.715	64.669	9.903	0.991	-5.559	1834.795
S.D.	0.190	1.269	0.003	0.801	0.043	0.086	1.609	5.932
% R.S.D.	25.073	8.476	0.104	1.239	0.435	8.666	28.951	0.323

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	3.800	0.643	1.017	392.554	2709.145	3.164	-0.635	109737.356
S.D.	2.964	2.063	0.075	3.098	10.403	0.144	0.622	347.873
% R.S.D.	78.006	320.729	7.355	0.789	0.384	4.559	98.064	0.317

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	22.737	-19.620	9.267	27.809	0.654	-0.167	32.433	634.318
S.D.	0.717	3.959	0.368	4.128	0.135	0.154	0.752	8.020
% R.S.D.	3.154	20.177	3.976	14.845	20.674	92.402	2.317	1.264

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	3.494	9.050	-3.638	0.206	4.154
S.D.	0.176	7.409	0.293	0.055	3.721
% R.S.D.	5.027	81.861	8.047	26.422	89.577

Identity 1: S96T001566_A Identity 2: .025ml-2ml-8ml 2:24 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	778.619	402.455	361.058	481.768	409.035	388.774	397.624	364.612
S.D.	1.644	0.422	5.384	1.773	2.829	3.158	0.558	0.771
% R.S.D.	0.211	0.105	1.491	0.368	0.692	0.812	0.140	0.211

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	387.979	407.127	403.052	448.801	404.099	394.451	422.041	2673.934
S.D.	1.196	1.310	1.421	5.101	0.301	0.560	5.673	10.367
% R.S.D.	0.308	0.322	0.353	1.137	0.074	0.142	1.344	0.388

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	388.298	411.891	400.731	857.100	3069.592	378.412	425.518	110449.476
S.D.	4.204	2.802	0.306	14.371	24.494	0.754	2.825	186.775
% R.S.D.	1.083	0.680	0.076	1.677	0.798	0.199	0.664	0.169

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	416.465	468.628	377.843	412.303	387.599	388.432	426.352	1000.520
S.D.	0.414	7.915	0.773	2.036	0.574	1.078	0.767	10.730
% R.S.D.	0.099	1.689	0.205	0.494	0.148	0.277	0.180	1.072

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	396.823	337.961	400.544	410.842	346.742
S.D.	1.894	9.445	0.867	0.430	7.460
% R.S.D.	0.477	2.795	0.217	0.105	2.151

Identity 1: ICSA Identity 2: Quality Control 2:26 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.002	-0.007	0.018	200.190	-0.008	0.000	0.000
S.D.	0.001	0.000	0.003	0.001	0.169	0.002	0.000	0.000
% R.S.D.	39.007	3.571	36.165	4.404	0.085	22.046	31.850	51.240

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.005	0.009	0.007	99.706	104.766	-0.002	-0.045	0.018
S.D.	0.000	0.002	0.001	0.047	0.037	0.005	0.005	0.035
% R.S.D.	8.625	22.957	19.490	0.048	0.036	259.075	11.728	189.672

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.006	0.040	0.003	0.048	0.066	101.560	0.059	189.945
S.D.	0.013	0.003	0.000	0.005	0.004	0.172	0.006	1.186
% R.S.D.	212.649	8.411	5.528	9.954	5.458	0.169	10.539	0.624

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.004	0.064	0.000	-0.026	0.001	-0.003	0.013	-0.058
S.D.	0.001	0.006	0.000	0.004	0.000	0.000	0.001	0.014
% R.S.D.	31.484	10.014	152.950	16.048	23.425	8.728	4.356	23.695

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.002	-0.018	-0.003	0.003	-0.048
S.D.	0.000	0.020	0.000	0.000	0.016
% R.S.D.	8.494	108.688	9.815	8.287	33.040

Identity 1: ICSAB Identity 2: Quality Control 2:29 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.004	0.002	-0.019	0.014	200.090	0.498	0.504	0.922
S.D.	0.001	0.000	0.003	0.005	0.662	0.000	0.002	0.008
% R.S.D.	16.660	7.407	16.365	37.001	0.331	0.001	0.463	0.899

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.010	1.001	0.000	99.720	104.258	0.509	-0.025	-0.109
S.D.	0.003	0.003	0.001	0.240	0.224	0.003	0.015	0.034
% R.S.D.	0.292	0.313	1057.831	0.241	0.215	0.644	59.297	30.648

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.023	0.027	0.515	0.018	0.095	102.054	0.066	189.952
S.D.	0.009	0.006	0.002	0.008	0.004	0.091	0.007	1.770
% R.S.D.	39.379	24.030	0.409	41.366	4.372	0.089	9.944	0.932

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.007	0.011	1.020	1.008	-0.001	1.015	0.015	-0.012
S.D.	0.001	0.006	0.002	0.008	0.000	0.003	0.001	0.025
% R.S.D.	16.597	52.419	0.195	0.832	76.003	0.258	4.396	216.109

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.510	-0.037	0.506	0.513	-0.033
S.D.	0.002	0.018	0.001	0.003	0.020
% R.S.D.	0.463	49.111	0.255	0.524	59.959

Identity 1: CCV Identity 2: Quality Control 2:32 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.051	5.054	5.076	4.848	5.037	5.136	5.072	4.865
S.D.	0.006	0.006	0.033	0.007	0.025	0.018	0.008	0.049
% R.S.D.	0.114	0.116	0.644	0.148	0.498	0.357	0.164	1.011

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.160	5.086	5.070	5.219	5.033	5.106	5.235	9.845
S.D.	0.004	0.020	0.012	0.014	0.021	0.015	0.011	0.019
% R.S.D.	0.076	0.393	0.227	0.277	0.427	0.294	0.203	0.197

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.202	5.066	5.034	5.742	5.195	5.002	5.161	5.004
S.D.	0.016	0.007	0.005	0.120	0.019	0.023	0.019	0.026
% R.S.D.	0.314	0.140	0.106	2.096	0.364	0.467	0.360	0.520

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.100	5.275	4.978	5.036	4.926	5.088	5.124	4.929
S.D.	0.003	0.044	0.006	0.022	0.004	0.014	0.008	0.054
% R.S.D.	0.061	0.827	0.121	0.439	0.086	0.266	0.156	1.087

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.079	4.785	5.176	5.227	4.859
S.D.	0.010	0.024	0.010	0.001	0.012
% R.S.D.	0.190	0.503	0.195	0.019	0.239

Identity 1: CCB Identity 2: Quality Control 2:36 PM April 24, 1996 **WHC-SD-WM-DP-183, REV. 0**

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.000	-0.002	0.006	-0.017	-0.009	-0.001	0.000
S.D.	0.001	0.001	0.012	0.002	0.001	0.002	0.001	0.000
% R.S.D.	48.639	781.025	718.970	36.988	5.665	19.246	96.681	1557.053

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.003	0.001	-0.001	-0.003	0.000	-0.031	0.023
S.D.	0.000	0.002	0.001	0.001	0.001	0.001	0.004	0.007
% R.S.D.	38.631	48.438	57.525	216.204	21.973	280.435	13.988	30.056

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.019	0.027	0.000	-0.000	0.000	0.001	0.001	0.016
S.D.	0.001	0.002	0.000	0.010	0.006	0.001	0.002	0.002
% R.S.D.	3.651	9.205	2256.657	2499.289	1350.231	130.767	201.893	15.002

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.004	-0.051	-0.001	-0.037	0.001	-0.002	0.005	-0.027
S.D.	0.000	0.003	0.001	0.006	0.001	0.000	0.001	0.005
% R.S.D.	6.366	6.088	86.813	16.164	106.818	9.105	23.255	19.514

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.001	0.006	-0.005	0.000	-0.043
S.D.	0.000	0.018	0.001	0.001	0.010
% R.S.D.	65.516	309.628	19.165	171.383	23.278

LABCORE Data Entry Template for Worklist# 6966

Analyst: DK Soto **Instrument:** ICP01-2 DK 5-18-96 **Book#** 53B48B

Method: LA-505-~~151~~/161 Rev/Mod B-0

Worklist Comment: ICP C-106 (SOLID ACID DIGEST) DK 5-18-96

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
	LS DK 5-18-96							
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPSTDTJA				@ICP-A01	SOLID		
6	PREPBLKTJA				@ICP-A01	SOLID		
		1690 DK 5-18-96						
7	SERDIL	S96T00~~1542~~	0	A	@ICP-A01	SOLID		
		1690 DK 5-18-96						
8	SAMPLE	S96T00~~1542~~	0	A	@ICP-A01	SOLID	96000082	C-106 GRAB
		Analytes Requested:			AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 , MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SE-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01		
		1690 DK 5-18-96						
9	DUP	S96T00~~1542~~	0	A	@ICP-A01	SOLID		
		1690 DK 5-18-96						
10	SPK-PREDIG	S96T00~~1542~~	0	A	@ICP-A01	SOLID		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		
13	SERDIL	S96T001564	0	A	@ICP-A01	SOLID		
14	SAMPLE	S96T001564	0	A	@ICP-A01	SOLID	96000174	C-106 GRAB
		Analytes Requested:			AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 ,		

Data Entry Comments: The sample is a solid which is acid digested and the prep dilution factor can be found in sample prep worklist. Example for calculation of sample results:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

S96T001690 $Ca = 13.84 \frac{ug}{ml} \times \frac{1}{5.224 \frac{g}{L} \times \frac{1 L}{1000 ml}} = 2.65e+3 \frac{ug}{g}$

802

LABCORE Data Entry Template for Worklist# 6966

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
					MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SE-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01			
15	DUP	S96T001564	0	A	@ICP-A01	SOLID		
~~16~~	~~SPK PREDIG~~ DK 5-18-96	~~S96T001564~~	~~0~~	~~A~~	@ICP-A01	SOLID		
17	ICSA				@ICP-QC	QC		
18	ICSAB				@ICP-QC	QC		
19	CCV				@ICP-QC	QC		
20	CCB				@ICP-QC	QC		

Final page for worklist # 6966

DK [signature] 05-18-96
Analyst Signature Date

Reviewed by: Saul M. Pavong 5/20/96
Analyst Signature Date

epStdTJQ, direct
epblkTJQ, direct
6T001690_L, 4-4-2-8, DF 10
6T001690 4-4 2
.T001690_D 4-4 2
6T001690_S 4-4 2
6T001564_L, 4-4-2-8, DF 10
6T001564 4-4 2
6T001564_D 4-4 2

Prep. spiking amount is 10.0 ppm on all elements except silver = 2.0 ppm and U = 20.0 ppm. But the LABCORE Bulk QC Table is 5.0 ppm on all elements except silver = ~~0.5~~ 1.0 ppm and U = 10 ppm and so the LABCORE re-calculated the spike recovery like this:

S96T001690 $Ca = \frac{\left(\frac{22.30}{2}\right) - \left(\frac{13.84}{2}\right)}{5} \times 100 = 84.60\ \%$

Data Entry Comments:

The raw data of spike of this worklist will not be the same as the final printout report which is twice less than the raw data.

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

The prep standard was also spike w/ 10 ppm for all elements except Ag = 2.0 ppm and U = 20.0 ppm but LABCORE bulk QC is 5.0 ppm for all elements except Ag = ~~0.5~~ 1.0 and U = 10 ppm. LABCORE re-calculated the prep std. results.

Analysis Report *Summary* *Sat 05-18-96 01:33:39 PM* *page 1*

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	960518B	ICP2	05/18/96	11:42	DKS	Q	CONC
2	ICB	960518B	ICP2	05/18/96	11:45	DKS	Q	CONC
3	LLS	960518B	ICP2	05/18/96	11:48	DKS	Q	CONC
4	ICSA	960518B	ICP2	05/18/96	11:50	DKS	Q	CONC
5	ICSAB	960518B	ICP2	05/18/96	11:53	DKS	Q	CONC
6	PREPSTDTJA	960518B	ICP2	05/18/96	11:57	DKS	S	CONC
7	PREPBLKTJA	960518B	ICP2	05/18/96	12:00	DKS	S	CONC
8	S96T001690_L	960518B	ICP2	05/18/96	12:03	DKS	S	CONC
9	S96T001690	960518B	ICP2	05/18/96	12:07	DKS	S	CONC
10	S96T001690_D	960518B	ICP2	05/18/96	12:10	DKS	S	CONC
11	S96T001690_S	960518B	ICP2	05/18/96	12:13	DKS	S	CONC
12	CCV	960518B	ICP2	05/18/96	12:36	DKS	Q	CONC
13	CCB	960518B	ICP2	05/18/96	12:40	DKS	Q	CONC
14	S96T001564_L	960518B	ICP2	05/18/96	12:43	DKS	S	CONC
15	S96T001564	960518B	ICP2	05/18/96	12:46	DKS	S	CONC
16	S96T001564_D	960518B	ICP2	05/18/96	12:49	DKS	S	CONC
17	ICSA	960518B	ICP2	05/18/96	13:17	DKS	Q	CONC
18	ICSAB	960518B	ICP2	05/18/96	13:20	DKS	Q	CONC
19	CCV_1	960518B	ICP2	05/18/96	13:26	DKS	Q	CONC
20	CCB_1	960518B	ICP2	05/18/96	13:30	DKS	Q	CONC

DK

WHC-SD-WM-DP-183, REV. 0

05-18-96

C-106 S96T001690

S96T001564

Worklist # 6966

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 804 TO 808.

Analysis Report Averages Sat 05-18-96 01:33:39 PM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.933	4.841	5.131	5.009	4.886	5.097
2	ICB	-.0004	-.0065	.0004	.0051	-.0001	.0001
3	LLS	Q.0474	.1004	.2010	.1057	.0983	.0106
4	ICSA	.0015	240.3	-.0715	.0077	.0017	.0002
5	ICSAB	.9765	239.6	-.0059	-.0014	.4759	.4776
6	PREPSTDTJA	1.805	9.141	9.387	9.767	9.407	10.26
7	PREPBLKTJA	.0013	.1086	-.0169	.6500	.0005	.0001
8	S96T001690_L	10.60	209.8	-.3299	.1893	1.193	.0035
9	S96T001690_	10.22	199.0	-.3154	.1348	1.159	.0036
10	S96T001690_D	6.356	191.6	-.3078	.1560	1.112	.0032
11	S96T001690_S	13.04	211.9	9.046	9.167	10.20	9.749
12	CCV	4.886	4.813	5.103	4.984	4.845	5.099
13	CCB	.0064	-.0024	-.0046	.0051	-.0000	.0001
14	S96T001564_L	11.49	308.0	-.3717	.4073	1.792	.0067
15	S96T001564_	8.588	294.2	-.4539	.3754	1.739	.0057
16	S96T001564_D	15.95	308.9	-.4754	.2932	1.792	.0056
17	ICSA	.0137	242.6	-.0673	.0005	.0016	.0001
18	ICSAB	.9840	241.0	-.0249	.0013	.4779	.4820
19	CCV_1	4.985	4.901	5.196	5.062	4.975	5.178
20	CCB_1	.0087	-.0042	-.0001	.0017	-.0001	.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.077	5.057	5.007	5.038	5.022	5.052
2	ICB	-.0047	.0005	.0000	.0080	-.0001	.0000
3	LLS	.1907	.2459	.0114	.2114	.0401	.0213
4	ICSA	-.0145	251.1	.0017	.0167	.0003	.0087
5	ICSAB	-.0186	250.9	.9554	.0224	.4702	.4880
6	PREPSTDTJA	9.120	9.153	8.966	9.702	9.238	9.097
7	PREPBLKTJA	.0025	.1275	.0001	.0010	-.0001	.0053
8	S96T001690_L	.2702	14.79	.1267	.8532	.0390	2.922
9	S96T001690_	.1054	13.84	.1249	.7385	.0357	2.758
10	S96T001690_D	.0976	12.69	.1261	.7738	.0425	2.737
11	S96T001690_S	9.111	22.30	8.952	10.23	9.062	11.84
12	CCV	4.996	5.017	4.953	4.974	4.970	5.010
13	CCB	.0125	-.0060	.0001	.0011	.0002	-.0005
14	S96T001564_L	.2428	5.894	.1780	1.052	.0724	3.276
15	S96T001564_	.0907	5.684	.1726	1.010	.0486	3.099
16	S96T001564_D	.1223	6.074	.1862	1.201	.0530	3.262
17	ICSA	-.0303	248.6	-.0003	.0100	.0003	.0075
18	ICSAB	.0167	250.1	.9508	.0132	.4701	.4872
19	CCV_1	5.055	5.113	5.029	5.123	5.041	5.103
20	CCB_1	.0070	-.0060	-.0001	.0034	-.0010	-.0011

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	5.090	-.0006	5.015	4.938	4.944	4.969
2	ICB	.0002	.0003	.0007	-.0557	-.0001	.0003
3	LLS	.0207	.0010	.1040	.4727	.1009	.0214
4	ICSA	-.0106	-.0354	93.33	.1982	-.0051	.0033
5	ICSAB	.4835	-.0324	93.04	.0505	-.0038	.9698

Analysis Report Averages Sat 05-18-96 01:33:39 PM page 3

#	Sample Name	Cu	Eu	Fe	K	La	Li
6	PREPSTDTJA	9.203	-.0033	9.083	9.308	9.443	9.512
7	PREPBLKTJA	.0115	-.0009	.0503	-.0663	.0009	-.0006
8	S96T001690_L	.5307	.0087	255.6	2.660	.2700	.0176
9	S96T001690_	.4996	.0106	239.8	2.890	.2592	.0131
10	S96T001690_D	.4788	.0069	292.0	2.611	.2429	.0154
11	S96T001690_S	9.447	.0110	248.3	12.54	9.418	9.201
12	CCV	5.067	-.0011	4.983	4.785	4.893	4.956
13	CCB	-.0007	-.0002	-.0019	-.1188	-.0001	.0003
14	S96T001564_L	.5195	-.0043	348.6	2.727	.3350	.0241
15	S96T001564_	.4932	.0002	331.3	4.461	.3340	.0232
16	S96T001564_D	.5173	.0010	348.9	4.463	.3520	.0244
17	ICSA	-.0104	-.0304	93.58	-.1154	-.0057	.0019
18	ICSAB	.4892	-.0313	93.35	.0162	-.0050	.9805
19	CCV_1	5.185	-.0015	5.071	4.957	5.041	5.065
20	CCB_1	.0000	-.0003	-.0023	-.1382	-.0001	-.0002

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.820	4.930	5.018	4.913	4.990	4.993
2	ICB	.0014	.0004	.0060	.0055	-.0022	.0024
3	LLS	.2058	.0204	.1037	.2127	.1963	.0396
4	ICSA	246.2	-.0058	-.0048	195.7	.0027	-.0018
5	ICSAB	245.5	.4529	-.0057	194.6	.0044	.9231
6	PREPSTDTJA	8.635	9.076	9.142	10.37	9.372	9.188
7	PREPBLKTJA	.0252	.0012	.0046	.8775	.0004	.0044
8	S96T001690_L	1.410	17.43	.0745	592.8	.6715	2.953
9	S96T001690_	1.307	16.79	.0445	565.5	.6672	2.690
10	S96T001690_D	1.341	16.64	.0488	550.2	.6375	2.635
11	S96T001690_S	9.866	26.96	8.950	563.6	9.790	11.84
12	CCV	4.803	4.863	4.972	4.885	4.948	4.984
13	CCB	-.0025	.0001	.0052	-.0013	-.0009	.0022
14	S96T001564_L	1.480	14.65	.0897	704.0	.8620	3.534
15	S96T001564_	1.321	14.25	.0753	669.0	.8230	3.352
16	S96T001564_D	1.448	14.91	.0642	645.1	.8946	3.541
17	ICSA	248.8	-.0065	-.0041	198.7	.0038	-.0143
18	ICSAB	247.2	.4503	-.0081	196.2	.0037	.9231
19	CCV_1	4.893	4.948	5.063	4.989	5.090	5.025
20	CCB_1	-.0003	.0001	.0024	-.0046	-.0023	.0051

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.135	4.980	4.999	4.774	4.896	4.844
2	ICB	-.0040	.0130	-.0020	-.0005	.0129	.0083
3	LLS	.4332	.2181	.2146	.0952	.2216	.1286
4	ICSA	.0279	.0335	-.0006	.0086	-.0584	.0019
5	ICSAB	.0125	1.032	-.0126	.0002	-.0556	-.0017
6	PREPSTDTJA	9.671	8.672	9.011	9.339	8.856	12.49
7	PREPBLKTJA	.0081	.0000	.0800	-.0049	.0228	.7697
8	S96T001690_L	10.01	10.87	5.170	.0095	.2007	116.8
9	S96T001690_	9.195	9.934	4.794	.0054	.1056	112.7
10	S96T001690_D	9.222	9.927	4.770	.0090	.1056	104.1
11	S96T001690_S	20.24	18.88	14.15	9.250	8.950	119.8

Analysis Report Averages Sat 05-18-96 01:33:39 PM page 4

#	Sample Name	P	Pb	S	Sb	Se	Si
12	CCV	5.128	4.933	4.995	4.740	4.915	4.802
13	CCB	-.0102	.0123	.0001	-.0078	.0074	.0003
14	S96T001564_L	13.56	14.26	8.415	.0673	.2223	174.3
15	S96T001564_	12.81	13.28	7.928	.0525	.1501	167.8
16	S96T001564_D	13.13	13.62	7.231	.0069	.0658	141.1
17	ICSA	.0437	.0450	-.0261	-.0069	-.0284	-.0062
18	ICSAB	.0170	1.024	-.0240	.0088	-.0350	-.0074
19	CCV_1	5.200	5.003	5.014	4.800	4.961	4.861
20	CCB_1	.0117	.0108	.0078	.0006	.0337	-.0020

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.820	4.857	.0123	4.785	4.804	9.539
2	ICB	.0025	.0001	.0038	.0005	-.0128	.0194
3	LLS	.2029	.0203	-.0001	.0202	.3950	.5303
4	ICSA	.0036	.0015	.0078	.0014	-.0098	-.0099
5	ICSAB	.0013	.0015	.0127	.0012	-.0096	-.0193
6	PREPSTDTJA	9.260	9.240	.0202	8.626	8.603	18.25
7	PREPBLKTJA	-.0185	.0003	.0063	.0014	-.0170	-.0614
8	S96T001690_L	.1261	.1076	.8003	.4832	-.0726	3.115
9	S96T001690_	.1246	.1048	.7616	.4564	.0024	3.019
10	S96T001690_D	.1431	.1017	.8171	.4449	.0218	2.988
11	S96T001690_S	9.105	9.011	.8276	8.783	8.497	20.65
12	CCV	4.782	4.826	.0093	4.768	4.791	9.457
13	CCB	-.0013	.0001	.0013	.0002	-.0124	.0058
14	S96T001564_L	.0938	.1145	1.248	.5686	-.3327	4.956
15	S96T001564_	.1751	.1114	1.182	.5436	-.1025	5.002
16	S96T001564_D	.1804	.1176	1.467	.5789	-.0531	4.436
17	ICSA	-.0099	.0015	.0083	.0014	.0136	-.0251
18	ICSAB	-.0031	.0016	.0055	.0014	.0049	-.0281
19	CCV_1	4.919	4.964	.0038	4.891	4.883	9.736
20	CCB_1	-.0043	-.0001	.0013	.0002	-.0113	-.0002

#	Sample Name	V	Y	Zn	Zr
1	ICV	4.971	.0066	5.054	4.880
2	ICB	.0012	.0002	.0003	.0000
3	LLS	.1046	.0009	.0241	.0215
4	ICSA	.0022	.0072	.0005	-.0030
5	ICSAB	.4700	.0071	.9760	-.0034
6	PREPSTDTJA	9.094	.0096	8.747	9.925
7	PREPBLKTJA	-.0010	-.0008	.0106	.0003
8	S96T001690_L	.0649	.1515	.3455	.8832
9	S96T001690_	.0546	.1445	.3254	.8487
10	S96T001690_D	.0609	.1412	.4444	2.189
11	S96T001690_S	8.908	.1731	9.083	12.79
12	CCV	4.932	.0065	5.009	4.831
13	CCB	.0002	.0000	-.0003	-.0001
14	S96T001564_L	.0749	.1790	.2706	2.213
15	S96T001564_	.0765	.1727	.2535	2.139
16	S96T001564_D	.0797	.1828	.2777	5.248
17	ICSA	.0006	.0067	.0009	-.0050

Analysis Report Averages Sat 05-18-96 01:33:39 PM page 5

#	Sample Name	V	Y	Zn	Zr
18	ICSAB	.4719	.0068	.9766	-.0036
19	CCV_1	5.031	.0065	5.081	4.955
20	CCB_1	.0004	-.0001	.0004	-.0004

JK
05-18-96

WHC-SD-WM-DP-183, REV. 0

FILE # 960422A.DAT

LABCORE Data Entry Template for Worklist# 7279

Analyst: B. GOECKE **Instrument:** ICP01 _____ **Book#** 53B4FA

Method: LA-505-151/~~161~~ 166 Rev/Mod D-3
4-22-96

Worklist Comment: ICP C-106 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	SERDIL	S96T001681	0	D	@ICP-D01	LIQUID		
6	SAMPLE	S96T001681	0	D	@ICP-D01	LIQUID	96000174	C-106 GRAB
	Analytes Requested:				AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			
7	DUP	S96T001681	0	D	@ICP-D01	LIQUID		
8	SPK	S96T001681	0	D	@ICP-D01	LIQUID		
9	ICSA				@ICP-QC	QC		
10	ICSAB				@ICP-QC	QC		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		

Final page for worklist # 7279

B. Goecke 4-22-96
Analyst Signature **Date**

Reviewed by: Saul R. Parry 4/22/96
Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 7279

S Type	Sample#	R A	Test	Matrix	Group#	Project
						D.F.
	S96T001681-C		.025-1-10-C-2-C-8-C			2005
	S96T001681		.025-C-10-C			401
	S96T001681-D		.025-C-10-C			401
	S96T001681-A		.025-C-2-C-8-C			401

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 7279

Analyst: bjg **Instrument:** ICP01 **Book#** 53B48A

Method: LA-505-151 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	ICV		0		●ICP-QC	AG	QC	5.0	4.91e+00	98.200 % Recovery
1	ICV		0		●ICP-QC	AL	QC	5.0	4.91e+00	98.200 % Recovery
1	ICV		0		●ICP-QC	AS	QC	5.0	5.11e+00	102.200 % Recovery
1	ICV		0		●ICP-QC	B	QC	5.0	5.05e+00	101.000 % Recovery
1	ICV		0		●ICP-QC	BA	QC	5.0	4.96e+00	99.200 % Recovery
1	ICV		0		●ICP-QC	BE	QC	5.0	5.14e+00	102.800 % Recovery
1	ICV		0		●ICP-QC	BI	QC	5.0	4.98e+00	99.600 % Recovery
1	ICV		0		●ICP-QC	CA	QC	5.0	4.88e+00	97.600 % Recovery
1	ICV		0		●ICP-QC	CD	QC	5.0	4.99e+00	99.800 % Recovery
1	ICV		0		●ICP-QC	CE	QC	5.0	5.08e+00	101.600 % Recovery
1	ICV		0		●ICP-QC	CO	QC	5.0	5.09e+00	101.800 % Recovery
1	ICV		0		●ICP-QC	CR	QC	5.0	5.03e+00	100.600 % Recovery
1	ICV		0		●ICP-QC	CU	QC	5.0	5.03e+00	100.600 % Recovery
1	ICV		0		●ICP-QC	FE	QC	5.0	5.00e+00	100.000 % Recovery
1	ICV		0		●ICP-QC	K	QC	5.0	5.06e+00	101.200 % Recovery
1	ICV		0		●ICP-QC	LA	QC	5.0	4.93e+00	98.600 % Recovery
1	ICV		0		●ICP-QC	LI	QC	5.0	5.02e+00	100.400 % Recovery
1	ICV		0		●ICP-QC	MG	QC	5.0	4.91e+00	98.200 % Recovery
1	ICV		0		●ICP-QC	MN	QC	5.0	5.00e+00	100.000 % Recovery
1	ICV		0		●ICP-QC	MO	QC	5.0	5.09e+00	101.800 % Recovery
1	ICV		0		●ICP-QC	NA	QC	5.0	4.97e+00	99.400 % Recovery
1	ICV		0		●ICP-QC	ND	QC	5.0	4.99e+00	99.800 % Recovery
1	ICV		0		●ICP-QC	NI	QC	5.0	4.99e+00	99.800 % Recovery
1	ICV		0		●ICP-QC	P	QC	5.0	5.10e+00	102.000 % Recovery
1	ICV		0		●ICP-QC	PB	QC	5.0	4.96e+00	99.200 % Recovery
1	ICV		0		●ICP-QC	S	QC	5.0	5.01e+00	100.200 % Recovery
1	ICV		0		●ICP-QC	SB	QC	5.0	4.77e+00	95.400 % Recovery
1	ICV		0		●ICP-QC	SE	QC	5.0	5.18e+00	103.600 % Recovery
1	ICV		0		●ICP-QC	SI	QC	5.0	4.77e+00	95.400 % Recovery
1	ICV		0		●ICP-QC	SM	QC	5.0	4.98e+00	99.600 % Recovery
1	ICV		0		●ICP-QC	SR	QC	5.0	4.96e+00	99.200 % Recovery
1	ICV		0		●ICP-QC	TI	QC	5.0	4.91e+00	98.200 % Recovery
1	ICV		0		●ICP-QC	TL	QC	5.0	4.80e+00	96.000 % Recovery
1	ICV		0		●ICP-QC	U	QC	10.0	9.66e+00	96.600 % Recovery
1	ICV		0		●ICP-QC	V	QC	5.0	5.06e+00	101.200 % Recovery
1	ICV		0		●ICP-QC	ZN	QC	5.0	5.11e+00	102.200 % Recovery
1	ICV		0		●ICP-QC	ZR	QC	5.0	4.93e+00	98.600 % Recovery
2	ICB		0		●ICP-QC	AG	QC	1	<1.00e-2	ug/g
2	ICB		0		●ICP-QC	AL	QC	1	<5.00e-2	ug/g
2	ICB		0		●ICP-QC	AS	QC	1	<1.00e-1	ug/g
2	ICB		0		●ICP-QC	B	QC	1	<5.00e-2	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
2	ICB		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
2	ICB		0	●ICP-QC	BI	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CA	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
2	ICB		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
2	ICB		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	FE	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
2	ICB		0	●ICP-QC	LA	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	LI	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	MG	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	MN	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	MO	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	NA	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	ND	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	NI	QC	1	<2.00e-2		ug/g
2	ICB		0	●ICP-QC	P	QC	1	<2.00e-1		ug/g
2	ICB		0	●ICP-QC	PB	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	S	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
2	ICB		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	TL	QC	1	<2.00e-1		ug/g
2	ICB		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
2	ICB		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	AG	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	AL	QC	200	2.00e+02	100.000	% Recovery
3	ICSA		0	●ICP-QC	AS	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	B	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	BA	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	BE	QC	1	<5.00e-3		ug/g
3	ICSA		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	CA	QC	100.	1.05e+02	105.000	% Recovery
3	ICSA		0	●ICP-QC	CD	QC	1	<5.00e-3		ug/g
3	ICSA		0	●ICP-QC	CE	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	CO	QC	1	<2.00e-2		ug/g
3	ICSA		0	●ICP-QC	CR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	CU	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	FE	QC	100.	9.60e+01	96.000	% Recovery
3	ICSA		0	●ICP-QC	K	QC	1	<5.00e-1		ug/g
3	ICSA		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
3	ICSA		0	●ICP-QC	LI	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	MG	QC	100.	9.99e+01	99.900	% Recovery
3	ICSA		0	●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	MO	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	NA	QC	200	1.95e+02	97.500	% Recovery
3	ICSA		0	●ICP-QC	ND	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	NI	QC	1	<2.00e-2		ug/g
3	ICSA		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
3	ICSA		0	●ICP-QC	PB	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
3	ICSA		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
3	ICSA		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
3	ICSA		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
3	ICSA		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
3	ICSA		0	●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
4	ICSAB		0	●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB		0	●ICP-QC	AL	QC	200	1.98e+02	99.000	% Recovery
4	ICSAB		0	●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	BA	QC	0.5	5.12e-01	102.400	% Recovery
4	ICSAB		0	●ICP-QC	BE	QC	0.5	5.05e-01	101.000	% Recovery
4	ICSAB		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	CA	QC	100.	1.04e+02	104.000	% Recovery
4	ICSAB		0	●ICP-QC	CD	QC	1.0	9.96e-01	99.600	% Recovery
4	ICSAB		0	●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	CO	QC	0.5	4.94e-01	98.800	% Recovery
4	ICSAB		0	●ICP-QC	CR	QC	0.5	5.04e-01	100.800	% Recovery
4	ICSAB		0	●ICP-QC	CU	QC	0.5	5.04e-01	100.800	% Recovery
4	ICSAB		0	●ICP-QC	FE	QC	100	9.55e+01	95.500	% Recovery
4	ICSAB		0	●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
4	ICSAB		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	LI	QC	1.0	9.57e-01	95.700	% Recovery
4	ICSAB		0	●ICP-QC	MG	QC	100.	9.88e+01	98.800	% Recovery
4	ICSAB		0	●ICP-QC	MN	QC	0.5	5.00e-01	100.000	% Recovery
4	ICSAB		0	●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0	●ICP-QC	NA	QC	200	1.94e+02	97.000	% Recovery
4	ICSAB		0	●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	NI	QC	1.0	9.82e-01	98.200	% Recovery
4	ICSAB		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
4	ICSAB		0	●ICP-QC	PB	QC	1.0	9.77e-01	97.700	% Recovery
4	ICSAB		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0	●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
4	ICSAB		0	●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual		Found	DL or Yield	Unit
4	ICSAB		0		●ICP-QC SI	QC	1.0		<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC SM	QC	1.0		<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC SR	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC TI	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC TL	QC	1.0		<2.00e-1		ug/g
4	ICSAB		0		●ICP-QC U	QC	1.0		<5.00e-1		ug/g
4	ICSAB		0		●ICP-QC V	QC	0.5		5.00e-01	100.000	% Recovery
4	ICSAB		0		●ICP-QC ZN	QC	1.0		1.00e+00	100.000	% Recovery
4	ICSAB		0		●ICP-QC ZR	QC	1.0		<1.00e-2		ug/g
5	SAMPLE	S96T001681	0	D	●ICP-D01 AG-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 AL-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 AS-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 B-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 BA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 BE-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 BI-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 CA-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 CD-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 CE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 CO-D-01	LIQUID	N/A	<	8.02e+00	8.020	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 CR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 CU-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 FE-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 K-D-01	LIQUID	N/A		5.41e+02	200.000	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 LA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 LI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 MG-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 MN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 MO-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 NA-D-01	LIQUID	N/A		9.91e+04	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 ND-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 NI-D-01	LIQUID	N/A		1.15e+01	8.020	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 P-D-01	LIQUID	N/A		2.66e+02	80.200	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 PB-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 S-D-01	LIQUID	N/A		2.24e+03	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 SB-D-01	LIQUID	N/A	<	2.41e+01	24.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 SE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 SI-D-01	LIQUID	N/A		2.75e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 SM-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 SR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 TI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 TL-D-01	LIQUID	N/A	<	8.02e+01	80.200	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 U-D-01	LIQUID	N/A		1.60e+03	200.000	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 V-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 ZN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001681	0	D	●ICP-D01 ZR-D-01	LIQUID	N/A		3.30e+02	4.010	ug/mL
6	DUP	S96T001681	0	D	●ICP-D01 AG-D-01	LIQUID	<4.01e0		<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 AL-D-01	LIQUID	<2.01e1		<2.01e1		RPD
	DUP	S96T001681	0	D	●ICP-D01 AS-D-01	LIQUID	<4.01e1		<4.01e1		RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	DUP	S96T001681	0	D	●ICP-D01 B-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 BA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 BE-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 BI-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 CA-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 CD-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 CE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 CO-D-01	LIQUID	<8.02e0	<8.02e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 CR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 CU-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 FE-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 K-D-01	LIQUID	5.41e+02	5.33e+02	1.490	RPD
6	DUP	S96T001681	0	D	●ICP-D01 LA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 LI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 MG-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 MN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 MO-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 NA-D-01	LIQUID	9.91e+04	9.56e+04	3.595	RPD
6	DUP	S96T001681	0	D	●ICP-D01 ND-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 NI-D-01	LIQUID	1.15e+01	1.13e+01	1.754	RPD
6	DUP	S96T001681	0	D	●ICP-D01 P-D-01	LIQUID	2.66e+02	2.75e+02	3.327	RPD
6	DUP	S96T001681	0	D	●ICP-D01 PB-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 S-D-01	LIQUID	2.24e+03	2.15e+03	4.100	RPD
6	DUP	S96T001681	0	D	●ICP-D01 SB-D-01	LIQUID	<2.41e1	<2.41e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 SE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 SI-D-01	LIQUID	2.75e+01	2.04e+01	29.645	RPD
6	DUP	S96T001681	0	D	●ICP-D01 SM-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 SR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 TL-D-01	LIQUID	<8.02e1	<8.02e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 U-D-01	LIQUID	1.60e+03	1.50e+0.	6.452	RPD
6	DUP	S96T001681	0	D	●ICP-D01 V-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001681	0	D	●ICP-D01 ZN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001681	0	D	●ICP-D01 ZR-D-01	LIQUID	3.30e+02	3.19e+02	3.390	RPD
6	DUP	S96T001681	0	D	●ICP-D01 TI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
7	SPK	S96T001681	0	D	●ICP-D01 AG-D-01	LIQUID	1	0.938	93.800	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 AL-D-01	LIQUID	1	0.960	96.000	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 AS-D-01	LIQUID	1	1.057	105.700	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 B-D-01	LIQUID	1	1.013	101.300	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 BA-D-01	LIQUID	1	0.998	99.800	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 BE-D-01	LIQUID	1	1.015	101.500	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 BI-D-01	LIQUID	1	0.908	90.800	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 CA-D-01	LIQUID	1	0.973	97.300	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 CD-D-01	LIQUID	1	0.960	96.000	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 CE-D-01	LIQUID	1	0.993	99.300	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 CO-D-01	LIQUID	1	0.980	98.000	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 CR-D-01	LIQUID	1	0.983	98.300	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 CU-D-01	LIQUID	1	0.998	99.800	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 FE-D-01	LIQUID	1	1.018	101.800	% Recovery
7	SPK	S96T001681	0	D	●ICP-D01 K-D-01	LIQUID	1	0.983	98.300	% Recovery

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LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
7	SPK	S96T001681	0	D	@ICP-D01	LA-D-01	LIQUID	1	0.985	98.500	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	LI-D-01	LIQUID	1	0.955	95.500	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	MG-D-01	LIQUID	1	0.948	94.800	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	MN-D-01	LIQUID	1	0.980	98.000	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	MO-D-01	LIQUID	1	1.040	104.000	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	NA-D-01	LIQUID	1	<1.00e-1		% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	ND-D-01	LIQUID	1	1.047	104.700	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	NI-D-01	LIQUID	1	0.966	96.600	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	P-D-01	LIQUID	1	1.031	103.100	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	PB-D-01	LIQUID	1	0.983	98.300	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	S-D-01	LIQUID	1	0.796	79.600	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	SB-D-01	LIQUID	1	0.910	91.000	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	SE-D-01	LIQUID	1	1.187	118.700	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	SI-D-01	LIQUID	1	0.929	92.900	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	SM-D-01	LIQUID	1	1.025	102.500	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	SR-D-01	LIQUID	1	0.995	99.500	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	TL-D-01	LIQUID	1	0.920	92.000	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	U-D-01	LIQUID	2	1.977	98.850	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	V-D-01	LIQUID	1	0.993	99.300	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	ZN-D-01	LIQUID	1	0.975	97.500	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	ZR-D-01	LIQUID	1	0.987	98.700	% Recovery
7	SPK	S96T001681	0	D	@ICP-D01	TI-D-01	LIQUID	1	0.975	97.500	% Recovery
8	ICSA		0		@ICP-QC	AG	QC	1	<1.00e-2		ug/g
8	ICSA		0		@ICP-QC	AL	QC	200	2.01e+02	100.500	% Recovery
8	ICSA		0		@ICP-QC	AS	QC	1	<1.00e-1		ug/g
8	ICSA		0		@ICP-QC	B	QC	1	<5.00e-2		ug/g
8	ICSA		0		@ICP-QC	BA	QC	1	<5.00e-2		ug/g
8	ICSA		0		@ICP-QC	BE	QC	1	<5.00e-3		ug/g
8	ICSA		0		@ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
8	ICSA		0		@ICP-QC	CA	QC	100.	1.06e+02	106.000	% Recovery
8	ICSA		0		@ICP-QC	CD	QC	1	<5.00e-3		ug/g
8	ICSA		0		@ICP-QC	CE	QC	1	<1.00e-1		ug/g
8	ICSA		0		@ICP-QC	CO	QC	1	<2.00e-2		ug/g
8	ICSA		0		@ICP-QC	CR	QC	1	<1.00e-2		ug/g
8	ICSA		0		@ICP-QC	CU	QC	1	<1.00e-2		ug/g
8	ICSA		0		@ICP-QC	FE	QC	100.	9.72e+01	97.200	% Recovery
8	ICSA		0		@ICP-QC	K	QC	1	<5.00e-1		ug/g
8	ICSA		0		@ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
8	ICSA		0		@ICP-QC	LI	QC	1	<1.00e-2		ug/g
8	ICSA		0		@ICP-QC	MG	QC	100.	1.00e+02	100.000	% Recovery
8	ICSA		0		@ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
8	ICSA		0		@ICP-QC	MO	QC	1	<5.00e-2		ug/g
8	ICSA		0		@ICP-QC	NA	QC	200	1.96e+02	98.000	% Recovery
8	ICSA		0		@ICP-QC	ND	QC	1	<1.00e-1		ug/g
8	ICSA		0		@ICP-QC	NI	QC	1	<2.00e-2		ug/g
8	ICSA		0		@ICP-QC	P	QC	1.0	<2.00e-1		ug/g
8	ICSA		0		@ICP-QC	PB	QC	1	<1.00e-1		ug/g
8	ICSA		0		@ICP-QC	S	QC	1.0	<1.00e-1		ug/g
8	ICSA		0		@ICP-QC	SB	QC	1	<6.00e-2		ug/g

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LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
8	ICSA		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
8	ICSA		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
8	ICSA		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
8	ICSA		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
8	ICSA		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
8	ICSA		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
8	ICSA		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
8	ICSA		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
8	ICSA		0	●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
8	ICSA		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
9	ICSAB		0	●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
9	ICSAB		0	●ICP-QC	AL	QC	200	2.00e+02	100.000	% Recovery
9	ICSAB		0	●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	BA	QC	0.5	5.19e-01	103.800	% Recovery
9	ICSAB		0	●ICP-QC	BE	QC	0.5	5.08e-01	101.600	% Recovery
9	ICSAB		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	CA	QC	100.	1.05e+02	105.000	% Recovery
9	ICSAB		0	●ICP-QC	CD	QC	1.0	1.00e+00	100.000	% Recovery
9	ICSAB		0	●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	CO	QC	0.5	4.93e-01	98.600	% Recovery
9	ICSAB		0	●ICP-QC	CR	QC	0.5	5.03e-01	100.600	% Recovery
9	ICSAB		0	●ICP-QC	CU	QC	0.5	5.11e-01	102.200	% Recovery
9	ICSAB		0	●ICP-QC	FE	QC	100	9.61e+01	96.100	% Recovery
9	ICSAB		0	●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
9	ICSAB		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	LI	QC	1.0	9.66e-01	96.600	% Recovery
9	ICSAB		0	●ICP-QC	MG	QC	100.	9.81e+01	98.100	% Recovery
9	ICSAB		0	●ICP-QC	MN	QC	0.5	5.00e-01	100.000	% Recovery
9	ICSAB		0	●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	NA	QC	200	1.96e+02	98.000	% Recovery
9	ICSAB		0	●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	NI	QC	1.0	9.73e-01	97.300	% Recovery
9	ICSAB		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
9	ICSAB		0	●ICP-QC	PB	QC	1.0	9.91e-01	99.100	% Recovery
9	ICSAB		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
9	ICSAB		0	●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	SI	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0	●ICP-QC	SM	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0	●ICP-QC	SR	QC	1.0	<1.00e-2		ug/g
9	ICSAB		0	●ICP-QC	TI	QC	1.0	<1.00e-2		ug/g
9	ICSAB		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
9	ICSAB		0	●ICP-QC	U	QC	1.0	<5.00e-1		ug/g
9	ICSAB		0	●ICP-QC	V	QC	0.5	5.00e-01	100.000	% Recovery
9	ICSAB		0	●ICP-QC	ZN	QC	1.0	9.98e-01	99.800	% Recovery
9	ICSAB		0	●ICP-QC	ZR	QC	1.0	<1.00e-2		ug/g
10	CCV		0	●ICP-QC	AG	QC	5.0	4.94e+00	98.800	% Recovery
10	CCV		0	●ICP-QC	AL	QC	5.0	4.99e+00	99.800	% Recovery

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LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
10	CCV		0		●ICP-QC	AS	QC	5.0	5.14e+00	102.800 % Recovery
10	CCV		0		●ICP-QC	B	QC	5.0	5.13e+00	102.600 % Recovery
10	CCV		0		●ICP-QC	BA	QC	5.0	5.08e+00	101.600 % Recovery
10	CCV		0		●ICP-QC	BE	QC	5.0	5.22e+00	104.400 % Recovery
10	CCV		0		●ICP-QC	BI	QC	5.0	5.02e+00	100.400 % Recovery
10	CCV		0		●ICP-QC	CA	QC	5.0	4.99e+00	99.800 % Recovery
10	CCV		0		●ICP-QC	CD	QC	5.0	5.04e+00	100.800 % Recovery
10	CCV		0		●ICP-QC	CE	QC	5.0	5.15e+00	103.000 % Recovery
10	CCV		0		●ICP-QC	CO	QC	5.0	5.09e+00	101.800 % Recovery
10	CCV		0		●ICP-QC	CR	QC	5.0	5.05e+00	101.000 % Recovery
10	CCV		0		●ICP-QC	CU	QC	5.0	5.15e+00	103.000 % Recovery
10	CCV		0		●ICP-QC	FE	QC	5.0	5.08e+00	101.600 % Recovery
10	CCV		0		●ICP-QC	K	QC	5.0	5.06e+00	101.200 % Recovery
10	CCV		0		●ICP-QC	LA	QC	5.0	5.05e+00	101.000 % Recovery
10	CCV		0		●ICP-QC	LI	QC	5.0	5.07e+00	101.400 % Recovery
10	CCV		0		●ICP-QC	MG	QC	5.0	4.93e+00	98.600 % Recovery
10	CCV		0		●ICP-QC	MN	QC	5.0	5.04e+00	100.800 % Recovery
10	CCV		0		●ICP-QC	MO	QC	5.0	5.09e+00	101.800 % Recovery
10	CCV		0		●ICP-QC	NA	QC	5.0	5.06e+00	101.200 % Recovery
10	CCV		0		●ICP-QC	ND	QC	5.0	5.22e+00	104.400 % Recovery
10	CCV		0		●ICP-QC	NI	QC	5.0	5.03e+00	100.600 % Recovery
10	CCV		0		●ICP-QC	P	QC	5.0	5.12e+00	102.400 % Recovery
10	CCV		0		●ICP-QC	PB	QC	5.0	4.97e+00	99.400 % Recovery
10	CCV		0		●ICP-QC	S	QC	5.0	5.03e+00	100.600 % Recovery
10	CCV		0		●ICP-QC	SB	QC	5.0	4.87e+00	97.400 % Recovery
10	CCV		0		●ICP-QC	SE	QC	5.0	5.20e+00	104.000 % Recovery
10	CCV		0		●ICP-QC	SI	QC	5.0	4.78e+00	95.600 % Recovery
10	CCV		0		●ICP-QC	SM	QC	5.0	5.11e+00	102.200 % Recovery
10	CCV		0		●ICP-QC	SR	QC	5.0	5.05e+00	101.000 % Recovery
10	CCV		0		●ICP-QC	TI	QC	5.0	4.98e+00	99.600 % Recovery
10	CCV		0		●ICP-QC	TL	QC	5.0	4.89e+00	97.800 % Recovery
10	CCV		0		●ICP-QC	U	QC	10.0	9.96e+00	99.600 % Recovery
10	CCV		0		●ICP-QC	V	QC	5.0	5.13e+00	102.600 % Recovery
10	CCV		0		●ICP-QC	ZN	QC	5.0	5.10e+00	102.000 % Recovery
10	CCV		0		●ICP-QC	ZR	QC	5.0	5.02e+00	100.400 % Recovery
11	CCB		0		●ICP-QC	AG	QC	1	<1.00e-2	ug/g
11	CCB		0		●ICP-QC	AL	QC	1	<5.00e-2	ug/g
11	CCB		0		●ICP-QC	AS	QC	1	<1.00e-1	ug/g
11	CCB		0		●ICP-QC	B	QC	1	<5.00e-2	ug/g
11	CCB		0		●ICP-QC	BA	QC	1	<5.00e-2	ug/g
11	CCB		0		●ICP-QC	BE	QC	1	<5.00e-3	ug/g
11	CCB		0		●ICP-QC	BI	QC	1	<1.00e-1	ug/g
11	CCB		0		●ICP-QC	CA	QC	1	<1.00e-1	ug/g
11	CCB		0		●ICP-QC	CD	QC	1	<5.00e-3	ug/g
11	CCB		0		●ICP-QC	CE	QC	1	<1.00e-1	ug/g
11	CCB		0		●ICP-QC	CO	QC	1	<2.00e-2	ug/g
11	CCB		0		●ICP-QC	CR	QC	1	<1.00e-2	ug/g
11	CCB		0		●ICP-QC	CU	QC	1	<1.00e-2	ug/g
11	CCB		0		●ICP-QC	FE	QC	1	<5.00e-2	ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 7279

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
11	CCB		0		●ICP-QC K	QC	1	<5.00e-1		ug/g
11	CCB		0		●ICP-QC LA	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC LI	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC MG	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC MN	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC MO	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC NA	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC ND	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC NI	QC	1	<2.00e-2		ug/g
11	CCB		0		●ICP-QC P	QC	1	<2.00e-1		ug/g
11	CCB		0		●ICP-QC PB	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC S	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC SB	QC	1	<6.00e-2		ug/g
11	CCB		0		●ICP-QC SE	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC SI	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC SM	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC SR	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC TI	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC TL	QC	1	<2.00e-1		ug/g
11	CCB		0		●ICP-QC U	QC	1	<5.00e-1		ug/g
11	CCB		0		●ICP-QC V	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC ZN	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC ZR	QC	1	<1.00e-2		ug/g

Final page for worklist# 7279

Analyst Signature Date

Analyst Signature Date

Reviewer Signature Date 4/22/96

Units shown for QC (BLK/BKG) may not reflect the actual units.

WHC-SD-WM-DP-183, REV. 0

Identity 1: ICV Identity 2: Quality Control 10:53 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.926	4.955	4.984	4.766	4.914	5.093	5.026	5.022
S.D.	0.018	0.019	0.034	0.022	0.030	0.029	0.019	0.012
% R.S.D.	0.356	0.388	0.684	0.453	0.614	0.574	0.373	0.245

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.106	4.991	4.934	4.997	4.880	5.034	4.986	9.663
S.D.	0.017	0.006	0.021	0.012	0.020	0.012	0.019	0.030
% R.S.D.	0.342	0.122	0.430	0.244	0.403	0.237	0.376	0.306

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.078	4.977	4.964	5.101	5.010	4.914	5.111	4.968
S.D.	0.038	0.022	0.020	0.102	0.044	0.018	0.020	0.016
% R.S.D.	0.740	0.445	0.399	1.991	0.887	0.369	0.396	0.315

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.086	5.180	4.912	4.964	4.914	4.994	5.050	5.055
S.D.	0.019	0.007	0.016	0.053	0.021	0.018	0.016	0.013
% R.S.D.	0.375	0.132	0.333	1.075	0.419	0.361	0.316	0.253

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.998	4.767	5.063	5.141	4.799
S.D.	0.019	0.022	0.019	0.015	0.035
% R.S.D.	0.378	0.458	0.383	0.286	0.720

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 820 TO 831.

[signature]
4-22-96
C-106 DIRECT
.025 ml - 10 ml, SR
FILE # 960422A.DAT

Identity 1: ICB Identity 2: Quality Control 10:57 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.006	0.000	0.032	0.009	-0.010	-0.002	-0.001	-0.000
S.D.	0.001	0.000	0.020	0.004	0.007	0.002	0.001	0.001
% R.S.D.	16.020	1212.436	64.605	42.983	70.221	85.365	95.259	275.557

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.000	0.002	0.000	0.002	-0.000	0.002	0.009	0.169
S.D.	0.001	0.001	0.003	0.001	0.000	0.002	0.010	0.052
% R.S.D.	473765.832	46.773	3658.260	60.703	114.564	100.847	103.070	30.735

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.020	0.039	-0.000	0.004	-0.006	0.000	-0.005	0.006
S.D.	0.012	0.011	0.000	0.003	0.006	0.000	0.005	0.001
% R.S.D.	61.619	28.956	145.467	81.088	100.933	28.868	97.194	21.649

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.018	-0.001	0.012	0.001	-0.002	0.006	0.119
S.D.	0.001	0.013	0.001	0.009	0.001	0.000	0.001	0.016
% R.S.D.	67.613	68.015	123.000	81.189	69.900	21.886	16.563	13.105

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.001	0.010	-0.002	0.000	-0.049
S.D.	0.000	0.019	0.001	0.000	0.026
% R.S.D.	42.423	194.420	37.345	1617.931	52.439

Identity 1: ICSA Identity 2: Quality Control 11:00 AM April 22, 1996

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.002	-0.000	0.005	199.541	-0.010	0.001	-0.001
S.D.	0.002	0.000	0.005	0.002	1.048	0.002	0.000	0.001
% R.S.D.	95.628	13.179	1217.130	42.963	0.525	17.647	85.990	109.082

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.005	0.008	0.001	96.009	105.173	0.001	-0.005	0.037
S.D.	0.000	0.002	0.001	0.217	0.363	0.002	0.012	0.095
% R.S.D.	10.306	19.464	222.567	0.226	0.345	266.672	232.160	255.067

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.006	0.035	0.003	0.014	0.003	99.894	0.034	195.185
S.D.	0.021	0.019	0.001	0.010	0.009	0.138	0.004	2.771
% R.S.D.	361.951	52.736	18.392	72.770	312.927	0.138	10.516	1.420

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	0.025	0.000	-0.008	0.001	-0.002	0.014	0.012
S.D.	0.002	0.011	0.002	0.002	0.000	0.001	0.001	0.023
% R.S.D.	138.393	44.385	1548.801	21.037	41.917	45.913	5.336	187.221

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.001	-0.008	-0.000	0.003	-0.029
S.D.	0.000	0.015	0.001	0.000	0.040
% R.S.D.	43.940	187.575	284.664	17.725	137.721

Identity 1: ICSAB Identity 2: Quality Control 11:03 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.000	0.002	-0.023	0.005	198.394	0.494	0.504	0.957
S.D.	0.001	0.000	0.010	0.002	0.449	0.000	0.001	0.003
% R.S.D.	179.182	3.430	40.776	41.975	0.226	0.001	0.219	0.293

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.001	0.982	-0.002	95.531	104.476	0.504	0.007	0.064
S.D.	0.002	0.001	0.002	0.104	0.188	0.002	0.010	0.029
% R.S.D.	0.164	0.109	98.185	0.109	0.180	0.383	132.085	45.420

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.021	0.030	0.512	-0.000	0.044	98.759	0.039	194.124
S.D.	0.006	0.006	0.001	0.012	0.006	0.113	0.004	0.661
% R.S.D.	26.797	20.855	0.213	2947.947	13.659	0.115	11.299	0.340

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.003	0.064	1.012	0.977	0.001	0.996	0.017	0.063
S.D.	0.001	0.009	0.001	0.016	0.000	0.004	0.001	0.027
% R.S.D.	42.859	13.260	0.137	1.639	19.751	0.361	5.689	43.459

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.500	0.028	0.500	0.505	-0.017
S.D.	0.002	0.032	0.001	0.001	0.013
% R.S.D.	0.470	114.342	0.153	0.206	76.249

Identity 1: S96T001681_L Identity 2: .025ml-10ml-2ml-8ml 11:07 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2005.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	342.948	0.133	46.660	38.315	80.123	-6.364	0.172	0.527
S.D.	1.001	0.000	14.399	2.866	56.185	0.003	0.642	0.556
% R.S.D.	0.292	0.000	30.858	7.481	70.124	0.051	373.409	105.380

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	2.314	9.096	0.038	55.243	29.338	1.714	30.017	2055.589
S.D.	0.395	0.325	1.601	27.776	27.751	1.426	9.766	26.129
% R.S.D.	17.071	3.578	4208.106	50.279	94.591	83.195	32.534	1.271

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-12.663	96.383	0.273	244.813	2380.054	44.971	1.506	102846.543
S.D.	9.642	11.612	0.109	25.793	45.788	28.396	10.938	339.026
% R.S.D.	76.143	12.048	39.970	10.536	1.924	63.142	726.430	0.330

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	17.096	-14.715	3.099	34.890	4.184	-6.629	17.942	785.970
S.D.	1.249	14.964	0.950	5.220	1.000	1.471	0.529	21.671
% R.S.D.	7.305	101.690	30.657	14.960	23.896	22.191	2.948	2.757

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.475	-65.963	-5.002	0.722	-57.348
S.D.	0.326	35.590	0.330	0.260	18.266
% R.S.D.	68.497	53.954	6.595	35.996	31.852

Identity 1: S96T001681 Identity 2: .025ml-10ml 11:11 AM April 22, 1996

WHC-SD-WM-DP-183, REV. 0

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 401.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	330.419	0.178	-9.880	27.543	5.695	-2.645	1.615	0.042
S.D.	1.039	0.015	2.565	1.814	1.771	0.001	0.114	0.048
% R.S.D.	0.315	8.660	25.962	6.585	31.099	0.055	7.039	114.588

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	2.712	11.532	-1.469	10.368	5.640	0.595	7.778	1597.190
S.D.	0.254	0.874	1.276	1.747	0.063	0.486	2.235	11.403
% R.S.D.	9.364	7.575	86.908	16.848	1.114	81.705	28.738	0.714

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.285	2.925	0.332	266.480	2241.006	2.771	-0.614	99079.603
S.D.	1.958	2.122	0.013	9.444	21.782	0.068	1.836	365.731
% R.S.D.	687.954	72.551	3.797	3.544	0.972	2.459	298.982	0.369

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	19.445	-7.871	3.895	29.286	0.778	-0.349	13.672	540.983
S.D.	0.726	4.928	0.133	1.579	0.157	0.394	0.186	4.207
% R.S.D.	3.732	62.617	3.405	5.391	20.181	113.087	1.362	0.778

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.258	-9.237	-3.141	0.116	-5.887
S.D.	0.129	9.028	0.328	0.053	1.902
% R.S.D.	10.271	97.745	10.457	45.780	32.303

Identity 1: S96T001681_D Identity 2: .025ml-10ml 11:14 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	318.697	0.196	-11.487	20.444	2.150	-1.006	2.734	0.179
S.D.	0.491	0.031	6.367	1.199	2.338	0.704	0.166	0.048
% R.S.D.	0.154	15.746	55.433	5.865	108.746	70.026	6.078	26.957

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	3.526	11.310	-3.543	9.593	9.141	0.848	5.083	1497.893
S.D.	0.302	0.499	0.552	0.794	0.072	0.355	0.808	3.830
% R.S.D.	8.571	4.410	15.578	8.277	0.788	41.917	15.893	0.256

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-4.447	-3.058	0.244	275.360	2152.439	2.612	-0.002	95597.697
S.D.	2.002	0.604	0.033	8.114	23.802	0.039	0.265	625.574
% R.S.D.	45.026	19.749	13.685	2.947	1.106	1.506	13854.656	0.654

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	19.961	-7.976	3.751	26.920	0.377	-0.514	13.016	533.349
S.D.	0.811	2.217	0.131	4.335	0.164	0.338	0.107	3.606
% R.S.D.	4.063	27.799	3.501	16.104	43.617	65.788	0.820	0.676

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.080	7.527	-2.490	0.103	-11.454
S.D.	0.065	8.812	0.328	0.052	6.382
% R.S.D.	5.979	117.066	13.166	50.788	55.720

Identity 1: S96T001681_A Identity 2: .025ml-2ml-8ml 11:17 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	725.536	398.762	364.235	400.020	385.018	392.886	400.428	382.545
S.D.	1.697	0.940	7.133	1.675	2.917	1.864	0.576	0.254
% R.S.D.	0.234	0.236	1.958	0.419	0.758	0.474	0.144	0.066

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	391.490	399.070	394.733	407.733	389.905	394.261	420.247	2392.743
S.D.	0.048	0.348	2.785	1.104	0.587	2.283	3.173	4.305
% R.S.D.	0.012	0.087	0.706	0.271	0.150	0.579	0.755	0.180

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	398.232	410.893	399.731	679.968	2557.129	379.595	424.339	97646.182
S.D.	3.149	1.041	0.916	16.469	41.728	0.963	4.688	90.957
% R.S.D.	0.791	0.253	0.229	2.422	1.632	0.254	1.105	0.093

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	416.654	475.741	376.142	394.372	391.259	384.596	406.252	935.177
S.D.	1.801	4.811	0.950	4.699	0.874	1.291	1.354	2.618
% R.S.D.	0.432	1.011	0.252	1.191	0.223	0.336	0.333	0.280

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	393.077	365.486	398.069	406.946	369.192
S.D.	0.561	7.173	1.187	0.931	3.961
% R.S.D.	0.143	1.963	0.298	0.229	1.073

Identity 1: ICSA Identity 2: Quality Control 11:20 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.006	0.002	-0.011	0.016	200.930	-0.006	0.000	-0.001
S.D.	0.002	0.000	0.004	0.001	0.328	0.002	0.000	0.000
% R.S.D.	27.891	5.589	35.348	6.185	0.163	29.753	86.184	55.756

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.004	0.007	0.007	97.202	106.075	-0.001	-0.004	0.215
S.D.	0.000	0.002	0.001	0.135	0.116	0.001	0.009	0.057
% R.S.D.	4.282	24.828	11.893	0.138	0.109	194.676	202.993	26.380

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.023	0.060	0.003	0.044	0.006	100.013	0.054	195.579
S.D.	0.017	0.013	0.000	0.010	0.014	0.171	0.006	1.067
% R.S.D.	73.573	21.463	12.925	22.371	215.780	0.171	10.881	0.546

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	0.000	-0.000	-0.002	0.002	-0.002	0.014	0.030
S.D.	0.001	0.008	0.001	0.003	0.000	0.000	0.001	0.007
% R.S.D.	121.242	16949.556	251.269	194.624	18.986	12.176	4.325	21.569

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	0.017	-0.001	0.003	-0.035
S.D.	0.000	0.022	0.001	0.000	0.022
% R.S.D.	86.037	123.939	56.890	4.306	64.572

Identity 1: ICSAB Identity 2: Quality Control 11:23 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	0.002	-0.012	0.012	199.649	0.493	0.511	0.965
S.D.	0.001	0.000	0.004	0.001	0.589	0.004	0.000	0.005
% R.S.D.	117.683	1.823	33.800	8.222	0.295	0.710	0.078	0.530

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.998	0.973	0.002	96.143	105.239	0.503	-0.003	0.110
S.D.	0.001	0.003	0.001	0.403	0.398	0.004	0.006	0.016
% R.S.D.	0.057	0.340	63.029	0.419	0.378	0.786	184.826	14.503

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.014	0.034	0.519	0.011	0.024	98.107	0.044	196.090
S.D.	0.004	0.008	0.001	0.005	0.006	0.337	0.007	0.847
% R.S.D.	26.205	22.240	0.222	46.588	23.381	0.344	16.344	0.432

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.005	0.041	1.012	0.991	0.002	1.002	0.013	0.012
S.D.	0.002	0.007	0.001	0.004	0.000	0.003	0.001	0.008
% R.S.D.	44.263	16.030	0.121	0.433	13.906	0.273	8.052	66.615

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.500	-0.024	0.500	0.508	0.010
S.D.	0.004	0.017	0.002	0.001	0.005
% R.S.D.	0.798	71.701	0.434	0.272	48.138

Identity 1: CCV Identity 2: Quality Control 11:26 AM April 22, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.017	5.054	5.015	4.782	4.985	5.094	5.146	5.074
S.D.	0.001	0.006	0.021	0.011	0.006	0.003	0.007	0.036
% R.S.D.	0.025	0.124	0.422	0.224	0.127	0.060	0.140	0.715

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.099	5.033	5.047	5.078	4.987	5.054	5.215	9.958
S.D.	0.008	0.003	0.006	0.010	0.001	0.005	0.005	0.049
% R.S.D.	0.155	0.056	0.114	0.194	0.021	0.108	0.097	0.497

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.146	5.105	5.078	5.117	5.029	4.925	5.136	5.057
S.D.	0.013	0.001	0.007	0.045	0.024	0.002	0.009	0.028
% R.S.D.	0.251	0.026	0.141	0.870	0.468	0.047	0.177	0.555

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.088	5.205	4.942	4.967	4.976	5.037	5.133	5.059
S.D.	0.006	0.009	0.004	0.020	0.004	0.003	0.006	0.033
% R.S.D.	0.114	0.166	0.075	0.409	0.076	0.066	0.121	0.654

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.036	4.869	5.125	5.219	4.887
S.D.	0.004	0.034	0.003	0.004	0.023
% R.S.D.	0.077	0.695	0.061	0.068	0.475

Identity 1: CCB Identity 2: Quality Control 11:29 AM April 22, 1996
Task *name* : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.005	0.001	0.018	0.008	0.007	-0.002	0.000	0.000
S.D.	0.001	0.000	0.011	0.001	0.004	0.004	0.000	0.000
% R.S.D.	17.032	30.123	63.502	13.437	57.373	171.275	195.836	44.096

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.004	-0.004	0.011	0.006	0.002	0.015	0.169
S.D.	0.000	0.003	0.001	0.002	0.002	0.001	0.003	0.019
% R.S.D.	51.383	75.910	38.242	21.705	37.856	35.074	18.666	11.193

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.007	0.025	0.000	-0.004	0.002	0.010	-0.012	0.042
S.D.	0.002	0.004	0.000	0.003	0.003	0.002	0.005	0.005
% R.S.D.	25.444	14.444	36.330	78.007	185.134	25.236	41.040	12.009

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	0.008	-0.001	-0.009	0.002	-0.002	0.007	0.088
S.D.	0.000	0.006	0.000	0.016	0.000	0.000	0.001	0.005
% R.S.D.	17.324	71.689	66.422	179.248	16.992	6.942	7.650	6.123

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.000	0.012	-0.002	0.001	-0.048
S.D.	0.000	0.018	0.000	0.000	0.012
% R.S.D.	1254.645	152.707	15.237	0.386	24.816

LABCORE Data Entry Template for Worklist# 7560

Analyst: DK Sato **Instrument:** ICP01 5-18-96 **Book#** 53B48B

Method: LA-505-~~151~~/161 Rev/Mod B-0
5-18-96

Worklist Comment: ICP C-106 (SOLID ACID DIGEST)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPSTD~~ARL~~ TJA				@ICP-A01	SOLID		
6	PREPBLK~~ARL~~ TJA SO 5/20/96				@ICP-A01	SOLID		
7	SERDIL	S96T00~~1690~~ 1542	0	A	@ICP-A01 5-18-96	SOLID		
8	SAMPLE	S96T00~~1690~~ 1542	0	A	@ICP-A01 5-18-96	SOLID	96000174	C-106 GRAB
	Analytes Requested:				AG-A-01 , AL-A-01 , AS-A-01 , B-A-01 , BA-A-01 , BE-A-01 , BI-A-01 , CA-A-01 , CD-A-01 , CE-A-01 , CO-A-01 , CR-A-01 , CU-A-01 , FE-A-01 , K-A-01 , LA-A-01 , LI-A-01 , MG-A-01 , MN-A-01 , MO-A-01 , NA-A-01 , ND-A-01 , NI-A-01 , P-A-01 , PB-A-01 , S-A-01 , SB-A-01 , SE-A-01 , SI-A-01 , SM-A-01 , SR-A-01 , TI-A-01 , TL-A-01 , U-A-01 , V-A-01 , ZN-A-01 , ZR-A-01			
9	DUP	S96T00~~1690~~ 1542	0	A	@ICP-A01 5-18-96	SOLID		
10	SPK-PREDIG	S96T00~~1690~~ 1542	0	A	@ICP-A01 5-18-96	SOLID		
11	ICSA				@ICP-QC	QC		
12	ICSAB				@ICP-QC	QC		
13	CCV				@ICP-QC	QC		
14	CCB				@ICP-QC	QC		

Data Entry Comments: Sample prep dilution factor can be found in sample prep. worklist.
Exaple for calculation of sample result.

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

S96T001542 $Ca = 5.794 \frac{ug}{ml} \times \frac{1}{4.696 \frac{g}{L} \times \frac{1L}{1000ml}} = 1.22e+3 \frac{ug}{g}$

LABCORE Data Entry Template for Worklist# 7560

S Type	Sample#	R A	Test	Matrix	Group#	Project

Final page for worklist # 7560

DK [signature] 05-18-96
Analyst Signature Date

Reviewed by:
[signature] 5/20/96
Analyst Signature Date

Prep Std ~~Grk~~ TSA, direct DK 5-18-96
Prep blk ~~GC~~ TSA, direct DK 5-18-96

S96T001542_L, 3-6-2-8, DF 15
S96T001542 3-6 3
S96T001542_D 3-6 3
S96T001542_Q 3-6 3

Prep std results were re-calculated because prep spiking amount for all elements is 10.0 ppm except for Ag = 2.0 and U = 20.0 ppm; and the LABCORE Bulk QC table is 5.0 ppm for all elements except for Ag = 1.0 and U = 10.0 ppm.

Example for calculation of Spike Recovery:

$$S96T001542 \quad Ca = \frac{\frac{13.82}{2} - \frac{5.724}{2}}{5} \times 100 = 81.0\%$$

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

Analysis Report Summary Sat 05-18-96 10:26:03 AM page 1

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	960518A	ICP2	05/18/96	09:13	DKS	Q	CONC
2	ICB	960518A	ICP2	05/18/96	09:15	DKS	Q	CONC
3	LLS	960518A	ICP2	05/18/96	09:18	DKS	Q	CONC
4	ICSA	960518A	ICP2	05/18/96	09:21	DKS	Q	CONC
5	ICSAB	960518A	ICP2	05/18/96	09:24	DKS	Q	CONC
6	PREPSTDTJA	960518A	ICP2	05/18/96	09:28	DKS	S	CONC
7	PREPBLKTJA	960518A	ICP2	05/18/96	09:32	DKS	S	CONC
8	S96T001542_L	960518A	ICP2	05/18/96	09:35	DKS	S	CONC
9	S96T001542_	960518A	ICP2	05/18/96	09:38	DKS	S	CONC
10	S96T001542_D	960518A	ICP2	05/18/96	09:42	DKS	S	CONC
11	S96T001542_S	960518A	ICP2	05/18/96	09:45	DKS	S	CONC
12	ICSA	960518A	ICP2	05/18/96	09:50	DKS	Q	CONC
13	ICSAB	960518A	ICP2	05/18/96	09:53	DKS	Q	CONC
14	CCV	960518A	ICP2	05/18/96	09:58	DKS	Q	CONC
15	CCB	960518A	ICP2	05/18/96	10:23	DKS	Q	CONC

DK [illegible]
05-18-96
C-106 S96T001542
Worklist # 7540

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 834 TO 837.

Analysis Report Averages Sat 05-18-96 10:26:03 AM page 2

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.928	4.839	5.107	4.961	4.978	5.114
2	ICB	.0005	.0087	.0052	-.0017	.0002	.0001
3	LLS	Q.0475	.1051	.2165	.1015	.0999	.0105
4	ICSA	.0010	240.8	-.0832	-.0015	.0019	.0000
5	ICSAB	.9741	239.8	-.0235	-.0015	.4820	.4799
6	PREPSTDTJA	1.788	9.099	9.392	9.741	9.403	10.36
7	PREPBLKTJA	.0007	.1173	.0063	.5884	.0007	.0001
8	S96T001542_L	15.21	317.2	-.6517	.2869	1.897	.0071
9	S96T001542_	12.21	302.7	-.6387	.2892	1.849	.0068
10	S96T001542_D	7.678	276.4	-.5791	.3665	1.676	.0061
11	S96T001542_S	6.245	293.2	8.472	9.072	10.43	9.170
12	ICSA	.3549	242.7	-.0554	-.0031	.0019	.0001
13	ICSAB	1.166	240.3	-.0336	-.0008	.4856	.4850
14	CCV	5.040	4.907	5.211	5.046	5.059	5.227
15	CCB	.0087	.0059	.0033	-.0026	-.0000	.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.994	5.059	4.999	5.104	5.014	5.064
2	ICB	-.0090	.0007	.0008	.0087	.0003	.0010
3	LLS	.1878	.2422	.0098	.2033	.0414	.0202
4	ICSA	-.0006	250.9	-.0005	.0140	.0014	.0097
5	ICSAB	-.0146	254.2	.9579	.0177	.4741	.4913
6	PREPSTDTJA	8.965	9.111	8.929	9.651	9.180	9.077
7	PREPBLKTJA	.0158	.0931	-.0004	.0074	.0036	.0024
8	S96T001542_L	-.1908	6.001	.2000	1.270	.0547	3.766
9	S96T001542_	.0352	5.724	.1852	1.180	.0601	3.563
10	S96T001542_D	-.0070	5.979	.1674	1.182	.0592	3.354
11	S96T001542_S	8.608	13.82	8.792	10.26	8.865	12.02
12	ICSA	.0040	257.2	.0002	.0182	.0002	.0091
13	ICSAB	-.0337	257.4	.9639	.0235	.4751	.4935
14	CCV	5.127	5.225	5.072	5.149	5.084	5.146
15	CCB	-.0234	.0038	-.0000	.0053	.0007	.0006

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	5.118	-.0011	5.025	5.034	5.011	4.961
2	ICB	.0002	-.0001	.0018	-.2405	.0008	.0006
3	LLS	.0211	-.0000	.1028	.5041	.1007	.0211
4	ICSA	-.0097	-.0314	93.48	.0845	-.0046	.0025
5	ICSAB	.4834	-.0351	93.59	.0697	-.0044	.9659
6	PREPSTDTJA	9.156	-.0041	9.158	9.403	9.382	9.425
7	PREPBLKTJA	.0115	-.0013	.0429	.1013	.0004	.0007
8	S96T001542_L	.4840	-.0175	427.3	4.290	.4099	.0295
9	S96T001542_	.4578	-.0124	406.0	4.418	.3920	.0255
10	S96T001542_D	.4082	-.0120	363.0	3.270	.3660	.0244
11	S96T001542_S	8.937	-.0146	384.1	12.23	9.199	8.690
12	ICSA	-.0093	-.0388	94.99	.1165	-.0046	.0028
13	ICSAB	.4874	-.0402	94.54	.0758	-.0035	.9670
14	CCV	5.201	-.0013	5.124	5.065	5.062	5.019
15	CCB	.0004	.0001	.0012	-.0510	-.0002	.0004

Analysis Report Averages Sat 05-18-96 10:26:03 AM page 3

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.822	4.911	5.024	4.919	5.073	5.026
2	ICB	-.0023	-.0001	.0067	-.0033	.0002	-.0008
3	LLS	.2003	.0195	.1034	.2066	.1967	.0371
4	ICSA	247.6	-.0066	-.0104	196.3	.0032	-.0123
5	ICSAB	246.6	.4525	-.0069	194.4	.0026	.9435
6	PREPSTDTJA	8.597	9.012	9.085	10.33	9.349	9.193
7	PREPBLKTJA	.0254	.0006	.0031	.8794	.0018	-.0026
8	S96T001542_L	1.586	11.61	.0555	715.2	.9470	4.041
9	S96T001542_	1.569	11.14	.0503	684.1	.9384	3.763
10	S96T001542_D	1.440	10.15	.0523	652.9	.8922	3.527
11	S96T001542_S	9.475	18.98	8.680	608.0	9.660	12.36
12	ICSA	250.1	-.0063	-.0069	197.0	.0005	-.0051
13	ICSAB	247.9	.4557	-.0076	194.4	.0006	.9344
14	CCV	4.893	4.983	5.092	4.946	5.116	5.104
15	CCB	.0131	-.0003	.0014	.0012	-.0016	-.0029

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	4.992	4.969	4.896	4.746	4.854	4.827
2	ICB	-.0037	-.0130	-.0002	-.0027	.0076	.0060
3	LLS	.4145	.2001	.2220	.0950	.2026	.1245
4	ICSA	.0300	.0322	-.0226	.0085	-.0615	-.0035
5	ICSAB	.0246	1.028	-.0353	.0043	-.0440	-.0035
6	PREPSTDTJA	9.401	8.611	8.920	9.295	8.809	12.94
7	PREPBLKTJA	.0171	.0086	.0738	-.0069	.0025	.8357
8	S96T001542_L	14.52	14.97	7.275	-.0349	.5289	188.8
9	S96T001542_	13.41	14.17	6.818	-.0035	.1361	186.0
10	S96T001542_D	12.69	12.90	5.771	-.0026	.1640	111.2
11	S96T001542_S	19.19	21.57	14.30	8.967	8.472	184.5
12	ICSA	.0339	.0352	-.0231	-.0042	-.0357	.0075
13	ICSAB	.0140	1.027	-.0134	.0059	-.0302	.0036
14	CCV	5.005	5.047	4.962	4.847	4.976	4.906
15	CCB	.0121	-.0169	-.0081	-.0065	.0146	-.0066

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.875	4.935	-.0000	4.835	4.864	9.623
2	ICB	-.0035	.0001	.0062	.0007	-.0147	-.0134
3	LLS	.1931	.0205	.0007	.0198	.4001	.4637
4	ICSA	-.0048	.0016	.0063	.0010	-.0613	.0012
5	ICSAB	.0022	.0015	.0094	.0024	-.0451	.0014
6	PREPSTDTJA	9.179	9.220	.0028	8.602	8.667	18.10
7	PREPBLKTJA	-.0210	.0001	.0101	.0015	-.0205	-.0892
8	S96T001542_L	.1772	.1296	1.514	.7114	-.4141	4.079
9	S96T001542_	.1703	.1251	1.357	.6796	-.1243	4.182
10	S96T001542_D	.1684	.1164	1.364	.6173	-.1033	5.767
11	S96T001542_S	8.793	8.739	1.381	8.688	8.206	20.19
12	ICSA	-.0002	.0014	.0086	.0012	-.0264	-.0312
13	ICSAB	.0021	.0015	.0097	.0019	-.0397	-.0193
14	CCV	4.931	4.994	.0082	4.905	4.908	9.729
15	CCB	.0017	-.0001	.0062	.0000	-.0045	-.0187

Analysis Report Averages Sat 05-18-96 10:26:03 AM page 4

#	Sample Name	V	Y	Zn	Zr
1	ICV	4.984	.0060	5.018	4.918
2	ICB	-.0004	-.0001	-.0001	-.0008
3	LLS	.1006	.0000	.0230	.0193
4	ICSA	-.0010	.0067	-.0009	-.0040
5	ICSAB	.4722	.0071	.9763	-.0037
6	PREPSTDTJA	9.065	.0092	8.693	9.873
7	PREPBLKTJA	-.0026	-.0010	.0122	-.0007
8	S96T001542_L	.0691	.2158	.3039	4.743
9	S96T001542	.0750	.2122	.2958	4.600
10	S96T001542_D	.0701	.1993	.2532	7.018
11	S96T001542_S	8.651	.2123	8.737	12.19
12	ICSA	-.0005	.0068	-.0019	-.0043
13	ICSAB	.4757	.0070	.9804	-.0034
14	CCV	5.060	.0062	5.084	4.973
15	CCB	-.0005	.0000	-.0020	-.0011

DK Lotd
05-18-96

WHC-SD-WM-DP-183, REV. 0

LABCORE Data Entry Template for Worklist# 8052

Analyst: B. Goecke **Instrument:** ICP01 _____ **Book#** 53B48A

Method: LA-505-151/~~161~~ Rev/Mod D-3
4-29-96

Worklist Comment: ICP C-106 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	SAMPLE	S96T000563	0	D	@ICP-D01	LIQUID	96000082	C-106 GRAB
	Analytes Requested:				AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			
6	DUP	S96T000563	0	D	@ICP-D01	LIQUID		
7	SPK	S96T000563	0	D	@ICP-D01	LIQUID		
8	ICSA				@ICP-QC	QC		
9	ICSAB				@ICP-QC	QC		
10	CCV				@ICP-QC	QC		
11	CCB				@ICP-QC	QC		

Final page for worklist # 8052

for: Saul R. Pang 4/26/96
Analyst Signature **Date**
B. Goecke

Reviewed by:
Saul R. Pang 4/26/96
Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 8052

Analyst: bjg **Instrument:** ICP01 **Book#** 53B48A

Method: LA-505-151 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	ICV		0	●ICP-QC	AG	QC	5.0	4.88e+00	97.600	% Recovery
1	ICV		0	●ICP-QC	AL	QC	5.0	4.83e+00	96.600	% Recovery
1	ICV		0	●ICP-QC	AS	QC	5.0	5.05e+00	101.000	% Recovery
1	ICV		0	●ICP-QC	B	QC	5.0	5.09e+00	101.800	% Recovery
1	ICV		0	●ICP-QC	BA	QC	5.0	4.97e+00	99.400	% Recovery
1	ICV		0	●ICP-QC	BE	QC	5.0	5.19e+00	103.800	% Recovery
1	ICV		0	●ICP-QC	BI	QC	5.0	4.99e+00	99.800	% Recovery
1	ICV		0	●ICP-QC	CA	QC	5.0	4.98e+00	99.600	% Recovery
1	ICV		0	●ICP-QC	CD	QC	5.0	5.04e+00	100.800	% Recovery
1	ICV		0	●ICP-QC	CE	QC	5.0	5.02e+00	100.400	% Recovery
1	ICV		0	●ICP-QC	CO	QC	5.0	5.01e+00	100.200	% Recovery
1	ICV		0	●ICP-QC	CR	QC	5.0	5.01e+00	100.200	% Recovery
1	ICV		0	●ICP-QC	CU	QC	5.0	5.03e+00	100.600	% Recovery
1	ICV		0	●ICP-QC	FE	QC	5.0	5.17e+00	103.400	% Recovery
1	ICV		0	●ICP-QC	K	QC	5.0	4.86e+00	97.200	% Recovery
1	ICV		0	●ICP-QC	LA	QC	5.0	5.04e+00	100.800	% Recovery
1	ICV		0	●ICP-QC	LI	QC	5.0	4.85e+00	97.000	% Recovery
1	ICV		0	●ICP-QC	MG	QC	5.0	4.84e+00	96.800	% Recovery
1	ICV		0	●ICP-QC	MN	QC	5.0	5.01e+00	100.200	% Recovery
1	ICV		0	●ICP-QC	MO	QC	5.0	4.96e+00	99.200	% Recovery
1	ICV		0	●ICP-QC	NA	QC	5.0	4.83e+00	96.600	% Recovery
1	ICV		0	●ICP-QC	ND	QC	5.0	5.29e+00	105.800	% Recovery
1	ICV		0	●ICP-QC	NI	QC	5.0	5.02e+00	100.400	% Recovery
1	ICV		0	●ICP-QC	P	QC	5.0	5.44e+00	108.800	% Recovery
1	ICV		0	●ICP-QC	PB	QC	5.0	5.03e+00	100.600	% Recovery
1	ICV		0	●ICP-QC	S	QC	5.0	4.91e+00	98.200	% Recovery
1	ICV		0	●ICP-QC	SB	QC	5.0	4.73e+00	94.600	% Recovery
1	ICV		0	●ICP-QC	SE	QC	5.0	5.13e+00	102.600	% Recovery
1	ICV		0	●ICP-QC	SI	QC	5.0	4.76e+00	95.200	% Recovery
1	ICV		0	●ICP-QC	SM	QC	5.0	5.05e+00	101.000	% Recovery
1	ICV		0	●ICP-QC	SR	QC	5.0	4.97e+00	99.400	% Recovery
1	ICV		0	●ICP-QC	TI	QC	5.0	4.83e+00	96.600	% Recovery
1	ICV		0	●ICP-QC	TL	QC	5.0	4.75e+00	95.000	% Recovery
1	ICV		0	●ICP-QC	U	QC	10.0	9.85e+00	98.500	% Recovery
1	ICV		0	●ICP-QC	V	QC	5.0	5.10e+00	102.000	% Recovery
1	ICV		0	●ICP-QC	ZN	QC	5.0	5.03e+00	100.600	% Recovery
1	ICV		0	●ICP-QC	ZR	QC	5.0	4.99e+00	99.800	% Recovery
2	ICB		0	●ICP-QC	AG	QC	1	<1.00e-2		ug/g
2	ICB		0	●ICP-QC	AL	QC	1	<5.00e-2		ug/g
2	ICB		0	●ICP-QC	AS	QC	1	<1.00e-1		ug/g
2	ICB		0	●ICP-QC	B	QC	1	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
2	ICB		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
2	ICB		0		●ICP-QC	BI	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	CA	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
2	ICB		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
2	ICB		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	FE	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
2	ICB		0		●ICP-QC	LA	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	MG	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	MN	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	NA	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
2	ICB		0		●ICP-QC	P	QC	1	<2.00e-1		ug/g
2	ICB		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	S	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
2	ICB		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	TL	QC	1	<2.00e-1		ug/g
2	ICB		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
2	ICB		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	AL	QC	200	1.94e+02	97.000 % Recovery	
3	ICSA		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
3	ICSA		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	CA	QC	100.	1.03e+02	103.000 % Recovery	
3	ICSA		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
3	ICSA		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
3	ICSA		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	FE	QC	100.	9.85e+01	98.500 % Recovery	
3	ICSA		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
3	ICSA		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
3	ICSA		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	MG	QC	100.	9.97e+01	99.700	% Recovery
3	ICSA		0		●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	NA	QC	200	1.86e+02	93.000	% Recovery
3	ICSA		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
3	ICSA		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
3	ICSA		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
3	ICSA		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
3	ICSA		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
3	ICSA		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB		0		●ICP-QC	AL	QC	200	1.96e+02	98.000	% Recovery
4	ICSAB		0		●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	BA	QC	0.5	5.04e-01	100.800	% Recovery
4	ICSAB		0		●ICP-QC	BE	QC	0.5	5.06e-01	101.200	% Recovery
4	ICSAB		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	CA	QC	100.	1.03e+02	103.000	% Recovery
4	ICSAB		0		●ICP-QC	CD	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB		0		●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	CO	QC	0.5	4.95e-01	99.000	% Recovery
4	ICSAB		0		●ICP-QC	CR	QC	0.5	5.07e-01	101.400	% Recovery
4	ICSAB		0		●ICP-QC	CU	QC	0.5	4.95e-01	99.000	% Recovery
4	ICSAB		0		●ICP-QC	FE	QC	100	9.86e+01	98.600	% Recovery
4	ICSAB		0		●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
4	ICSAB		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	LI	QC	1.0	9.07e-01	90.700	% Recovery
4	ICSAB		0		●ICP-QC	MG	QC	100.	1.01e+02	101.000	% Recovery
4	ICSAB		0		●ICP-QC	MN	QC	0.5	5.05e-01	101.000	% Recovery
4	ICSAB		0		●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	NA	QC	200	1.86e+02	93.000	% Recovery
4	ICSAB		0		●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	NI	QC	1.0	9.88e-01	98.800	% Recovery
4	ICSAB		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
4	ICSAB		0		●ICP-QC	PB	QC	1.0	9.84e-01	98.400	% Recovery
4	ICSAB		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
4	ICSAB		0		●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit
4	ICSAB		0		●ICP-QC	SI	QC	1.0		<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	SM	QC	1.0		<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	SR	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	TI	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	TL	QC	1.0		<2.00e-1		ug/g
4	ICSAB		0		●ICP-QC	U	QC	1.0		<5.00e-1		ug/g
4	ICSAB		0		●ICP-QC	V	QC	0.5		5.02e+01	100.400	% Recovery
4	ICSAB		0		●ICP-QC	ZN	QC	1.0		1.00e+00	100.000	% Recovery
4	ICSAB		0		●ICP-QC	ZR	QC	1.0		<1.00e-2		ug/g
5	SAMPLE	S96T000563	0	D	●ICP-D01	AG-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	AL-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	AS-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	B-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	BA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	BE-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	BI-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	CA-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	CD-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	CE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	CO-D-01	LIQUID	N/A	<	8.02e+00	8.020	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	CR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	CU-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	FE-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	K-D-01	LIQUID	N/A		5.48e+02	200.000	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	LA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	LI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	MG-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	MN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	MO-D-01	LIQUID	N/A		2.13e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	NA-D-01	LIQUID	N/A		1.03e+05	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	ND-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	NI-D-01	LIQUID	N/A		1.37e+01	8.020	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	P-D-01	LIQUID	N/A		3.71e+02	80.200	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	PB-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	S-D-01	LIQUID	N/A		2.48e+03	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	SB-D-01	LIQUID	N/A	<	2.41e+01	24.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	SE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	SI-D-01	LIQUID	N/A		2.58e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	SM-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	SR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	TI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	TL-D-01	LIQUID	N/A	<	8.02e+01	80.200	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	U-D-01	LIQUID	N/A		1.56e+03	200.000	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	V-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	ZN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T000563	0	D	●ICP-D01	ZR-D-01	LIQUID	N/A		3.36e+02	4.010	ug/mL
6	DUP	S96T000563	0	D	●ICP-D01	AG-D-01	LIQUID	<4.01e0		<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01	AL-D-01	LIQUID	<2.01e1		<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01	AS-D-01	LIQUID	<4.01e1		<4.01e1		RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	DUP	S96T000563	0	D	●ICP-D01 B-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 BA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 BE-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 BI-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 CA-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 CD-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 CE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 CO-D-01	LIQUID	<8.02e0	<8.02e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 CR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 CU-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 FE-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 K-D-01	LIQUID	5.48e+02	5.64e+02	2.878	RPD
6	DUP	S96T000563	0	D	●ICP-D01 LA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 LI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 MG-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 MN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 MO-D-01	LIQUID	2.13e+01	<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 NA-D-01	LIQUID	1.03e+05	1.01e+05	1.961	RPD
6	DUP	S96T000563	0	D	●ICP-D01 ND-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 NI-D-01	LIQUID	1.37e+01	1.35e+01	1.471	RPD
6	DUP	S96T000563	0	D	●ICP-D01 P-D-01	LIQUID	3.71e+02	3.75e+02	1.072	RPD
6	DUP	S96T000563	0	D	●ICP-D01 PB-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 S-D-01	LIQUID	2.48e+03	2.50e+03	0.803	RPD
6	DUP	S96T000563	0	D	●ICP-D01 SB-D-01	LIQUID	<2.41e1	<2.41e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 SE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 SI-D-01	LIQUID	2.58e+01	2.69e+01	4.175	RPD
6	DUP	S96T000563	0	D	●ICP-D01 SM-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 SR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 TL-D-01	LIQUID	<8.02e1	<8.02e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 U-D-01	LIQUID	1.56e+03	1.57e+03	0.639	RPD
6	DUP	S96T000563	0	D	●ICP-D01 V-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T000563	0	D	●ICP-D01 ZN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T000563	0	D	●ICP-D01 ZR-D-01	LIQUID	3.36e+02	3.36e+02	0.000	RPD
6	DUP	S96T000563	0	D	●ICP-D01 TI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
7	SPK	S96T000563	0	D	●ICP-D01 AG-D-01	LIQUID	1	0.928	92.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 AL-D-01	LIQUID	1	0.928	92.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 AS-D-01	LIQUID	1	1.038	103.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 B-D-01	LIQUID	1	1.025	102.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 BA-D-01	LIQUID	1	0.990	99.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 BE-D-01	LIQUID	1	1.018	101.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 BI-D-01	LIQUID	1	0.955	95.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 CA-D-01	LIQUID	1	0.990	99.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 CD-D-01	LIQUID	1	0.980	98.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 CE-D-01	LIQUID	1	0.965	96.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 CO-D-01	LIQUID	1	0.970	97.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 CR-D-01	LIQUID	1	0.985	98.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 CU-D-01	LIQUID	1	0.998	99.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 FE-D-01	LIQUID	1	1.052	105.200	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01 K-D-01	LIQUID	1	0.964	96.400	% Recovery

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LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
7	SPK	S96T000563	0	D	●ICP-D01	LA-D-01	LIQUID	1	1.010	101.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	LI-D-01	LIQUID	1	0.920	92.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	MG-D-01	LIQUID	1	0.938	93.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	MN-D-01	LIQUID	1	0.993	99.300	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	MO-D-01	LIQUID	1	0.967	96.700	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	NA-D-01	LIQUID	1	<1.00e-1		% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	ND-D-01	LIQUID	1	1.055	105.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	NI-D-01	LIQUID	1	0.986	98.600	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	P-D-01	LIQUID	1	1.150	115.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	PB-D-01	LIQUID	1	0.995	99.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	S-D-01	LIQUID	1	0.827	82.700	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	SB-D-01	LIQUID	1	0.908	90.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	SE-D-01	LIQUID	1	1.100	110.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	SI-D-01	LIQUID	1	0.951	95.100	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	SM-D-01	LIQUID	1	1.020	102.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	SR-D-01	LIQUID	1	0.993	99.300	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	TL-D-01	LIQUID	1	0.858	85.800	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	U-D-01	LIQUID	2	2.047	102.350	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	V-D-01	LIQUID	1	1.000	100.000	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	ZN-D-01	LIQUID	1	0.975	97.500	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	ZR-D-01	LIQUID	1	1.006	100.600	% Recovery
7	SPK	S96T000563	0	D	●ICP-D01	TI-D-01	LIQUID	1	0.960	96.000	% Recovery
8	ICSA		0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	AL	QC	200	1.97e+02	98.500	% Recovery
8	ICSA		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
8	ICSA		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	CA	QC	100.	1.04e+02	104.000	% Recovery
8	ICSA		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
8	ICSA		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
8	ICSA		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	FE	QC	100.	9.91e+01	99.100	% Recovery
8	ICSA		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
8	ICSA		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	MG	QC	100.	9.95e+01	99.500	% Recovery
8	ICSA		0		●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	NA	QC	200	1.89e+02	94.500	% Recovery
8	ICSA		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
8	ICSA		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
8	ICSA		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g

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LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
8	ICSA		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
8	ICSA		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
8	ICSA		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
8	ICSA		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
8	ICSA		0		●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
8	ICSA		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
9	ICSAB		0		●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
9	ICSAB		0		●ICP-QC	AL	QC	200	1.97e+02	98.500	% Recovery
9	ICSAB		0		●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0		●ICP-QC	BA	QC	0.5	5.06e-01	101.200	% Recovery
9	ICSAB		0		●ICP-QC	BE	QC	0.5	5.08e-01	101.600	% Recovery
9	ICSAB		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	CA	QC	100.	1.03e+02	103.000	% Recovery
9	ICSAB		0		●ICP-QC	CD	QC	1.0	1.01e+00	101.000	% Recovery
9	ICSAB		0		●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	CO	QC	0.5	4.97e-01	99.400	% Recovery
9	ICSAB		0		●ICP-QC	CR	QC	0.5	5.07e-01	101.400	% Recovery
9	ICSAB		0		●ICP-QC	CU	QC	0.5	4.97e-01	99.400	% Recovery
9	ICSAB		0		●ICP-QC	FE	QC	100	9.89e+01	98.900	% Recovery
9	ICSAB		0		●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
9	ICSAB		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0		●ICP-QC	LI	QC	1.0	9.10e-01	91.000	% Recovery
9	ICSAB		0		●ICP-QC	MG	QC	100.	1.01e+02	101.000	% Recovery
9	ICSAB		0		●ICP-QC	MN	QC	0.5	5.06e-01	101.200	% Recovery
9	ICSAB		0		●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0		●ICP-QC	NA	QC	200	1.87e+02	93.500	% Recovery
9	ICSAB		0		●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	NI	QC	1.0	9.91e-01	99.100	% Recovery
9	ICSAB		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
9	ICSAB		0		●ICP-QC	PB	QC	1.0	1.00e+00	100.000	% Recovery
9	ICSAB		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
9	ICSAB		0		●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	SI	QC	1.0	<5.00e-2		ug/g
9	ICSAB		0		●ICP-QC	SM	QC	1.0	<1.00e-1		ug/g
9	ICSAB		0		●ICP-QC	SR	QC	1.0	<1.00e-2		ug/g
9	ICSAB		0		●ICP-QC	TI	QC	1.0	<1.00e-2		ug/g
9	ICSAB		0		●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
9	ICSAB		0		●ICP-QC	U	QC	1.0	<5.00e-1		ug/g
9	ICSAB		0		●ICP-QC	V	QC	0.5	5.02e-01	100.400	% Recovery
9	ICSAB		0		●ICP-QC	ZN	QC	1.0	9.99e-01	99.900	% Recovery
9	ICSAB		0		●ICP-QC	ZR	QC	1.0	<1.00e-2		ug/g
10	CCV		0		●ICP-QC	AG	QC	5.0	4.96e+00	99.200	% Recovery
10	CCV		0		●ICP-QC	AL	QC	5.0	4.91e+00	98.200	% Recovery

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LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
10	CCV	0		●ICP-QC	AS	QC	5.0	5.15e+00	103.000	% Recovery
10	CCV	0		●ICP-QC	B	QC	5.0	5.14e+00	102.800	% Recovery
10	CCV	0		●ICP-QC	BA	QC	5.0	5.02e+00	100.400	% Recovery
10	CCV	0		●ICP-QC	BE	QC	5.0	5.25e+00	105.000	% Recovery
10	CCV	0		●ICP-QC	BI	QC	5.0	5.04e+00	100.800	% Recovery
10	CCV	0		●ICP-QC	CA	QC	5.0	5.02e+00	100.400	% Recovery
10	CCV	0		●ICP-QC	CD	QC	5.0	5.12e+00	102.400	% Recovery
10	CCV	0		●ICP-QC	CE	QC	5.0	5.07e+00	101.400	% Recovery
10	CCV	0		●ICP-QC	CO	QC	5.0	5.12e+00	102.400	% Recovery
10	CCV	0		●ICP-QC	CR	QC	5.0	5.12e+00	102.400	% Recovery
10	CCV	0		●ICP-QC	CU	QC	5.0	5.07e+00	101.400	% Recovery
10	CCV	0		●ICP-QC	FE	QC	5.0	5.24e+00	104.800	% Recovery
10	CCV	0		●ICP-QC	K	QC	5.0	4.91e+00	98.200	% Recovery
10	CCV	0		●ICP-QC	LA	QC	5.0	5.09e+00	101.800	% Recovery
10	CCV	0		●ICP-QC	LI	QC	5.0	4.85e+00	97.000	% Recovery
10	CCV	0		●ICP-QC	MG	QC	5.0	4.94e+00	98.800	% Recovery
10	CCV	0		●ICP-QC	MN	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV	0		●ICP-QC	MO	QC	5.0	5.06e+00	101.200	% Recovery
10	CCV	0		●ICP-QC	NA	QC	5.0	4.87e+00	97.400	% Recovery
10	CCV	0		●ICP-QC	ND	QC	5.0	5.29e+00	105.800	% Recovery
10	CCV	0		●ICP-QC	NI	QC	5.0	5.11e+00	102.200	% Recovery
10	CCV	0		●ICP-QC	P	QC	5.0	5.67e+00	113.400	% Recovery
10	CCV	0		●ICP-QC	PB	QC	5.0	5.11e+00	102.200	% Recovery
10	CCV	0		●ICP-QC	S	QC	5.0	5.10e+00	102.000	% Recovery
10	CCV	0		●ICP-QC	SB	QC	5.0	4.78e+00	95.600	% Recovery
10	CCV	0		●ICP-QC	SE	QC	5.0	5.20e+00	104.000	% Recovery
10	CCV	0		●ICP-QC	SI	QC	5.0	4.83e+00	96.600	% Recovery
10	CCV	0		●ICP-QC	SM	QC	5.0	5.08e+00	101.600	% Recovery
10	CCV	0		●ICP-QC	SR	QC	5.0	5.03e+00	100.600	% Recovery
10	CCV	0		●ICP-QC	TI	QC	5.0	4.91e+00	98.200	% Recovery
10	CCV	0		●ICP-QC	TL	QC	5.0	4.79e+00	95.800	% Recovery
10	CCV	0		●ICP-QC	U	QC	10.0	9.81e+00	98.100	% Recovery
10	CCV	0		●ICP-QC	V	QC	5.0	5.18e+00	103.600	% Recovery
10	CCV	0		●ICP-QC	ZN	QC	5.0	5.14e+00	102.800	% Recovery
10	CCV	0		●ICP-QC	ZR	QC	5.0	5.05e+00	101.000	% Recovery
11	CCB	0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
11	CCB	0		●ICP-QC	AL	QC	1	<5.00e-2		ug/g
11	CCB	0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
11	CCB	0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
11	CCB	0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
11	CCB	0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
11	CCB	0		●ICP-QC	BI	QC	1	<1.00e-1		ug/g
11	CCB	0		●ICP-QC	CA	QC	1	<1.00e-1		ug/g
11	CCB	0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
11	CCB	0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
11	CCB	0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
11	CCB	0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
11	CCB	0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
11	CCB	0		●ICP-QC	FE	QC	1	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8052

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
11	CCB		0		●ICP-QC K	QC	1	<5.00e-1		ug/g
11	CCB		0		●ICP-QC LA	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC LI	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC MG	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC MN	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC MO	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC NA	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC ND	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC NI	QC	1	<2.00e-2		ug/g
11	CCB		0		●ICP-QC P	QC	1	<2.00e-1		ug/g
11	CCB		0		●ICP-QC PB	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC S	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC SB	QC	1	<6.00e-2		ug/g
11	CCB		0		●ICP-QC SE	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC SI	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC SM	QC	1	<1.00e-1		ug/g
11	CCB		0		●ICP-QC SR	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC TI	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC TL	QC	1	<2.00e-1		ug/g
11	CCB		0		●ICP-QC U	QC	1	<5.00e-1		ug/g
11	CCB		0		●ICP-QC V	QC	1	<5.00e-2		ug/g
11	CCB		0		●ICP-QC ZN	QC	1	<1.00e-2		ug/g
11	CCB		0		●ICP-QC ZR	QC	1	<1.00e-2		ug/g

Final page for worklist# 8052

Analyst Signature Date

Analyst Signature Date

Saul M. Parry 4/26/96
Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

Identity 1: ICV Identity 2: Quality Control 1:17 PM April 24, 1996

WHC-SD-WM-DP-183, REV. 0

Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.993	4.967	4.994	4.757	4.834	5.010	5.027	4.846
S.D.	0.017	0.023	0.014	0.010	0.021	0.010	0.028	0.062
% R.S.D.	0.334	0.471	0.273	0.213	0.428	0.191	0.554	1.279

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.029	5.025	5.044	5.171	4.979	5.012	5.292	9.850
S.D.	0.009	0.009	0.025	0.033	0.020	0.006	0.033	0.007
% R.S.D.	0.186	0.170	0.492	0.645	0.405	0.126	0.632	0.069

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.020	5.049	4.965	5.442	4.910	4.843	5.051	4.831
S.D.	0.020	0.023	0.026	0.177	0.063	0.007	0.015	0.060
% R.S.D.	0.403	0.453	0.530	3.252	1.290	0.151	0.303	1.250

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.961	5.134	4.878	5.034	4.834	5.040	5.092	4.861
S.D.	0.012	0.047	0.012	0.015	0.014	0.010	0.016	0.060
% R.S.D.	0.250	0.925	0.236	0.303	0.292	0.200	0.306	1.227

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.015	4.730	5.101	5.194	4.747
S.D.	0.010	0.035	0.009	0.017	0.011
% R.S.D.	0.197	0.735	0.185	0.328	0.233

[signature]
4-24-96
C-106 ACID DIL.
S96T000563
.025-1-10-C
FILE # 960424A.DAT

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 848 TO 859.

Identity 1: ICB Identity 2: Quality Control 1:21 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	0.000	-0.003	0.001	-0.019	-0.007	-0.000	0.000
S.D.	0.002	0.000	0.014	0.002	0.005	0.003	0.000	0.000
% R.S.D.	302.808	57.282	427.921	129.198	29.026	42.912	533.780	160.688

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.000	-0.000	0.003	-0.003	0.001	0.000	-0.009	-0.004
S.D.	0.000	0.001	0.002	0.001	0.000	0.001	0.004	0.054
% R.S.D.	94.165	530.254	66.265	46.839	23.130	122.322	38.224	1222.653

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.004	-0.011	0.000	-0.011	-0.010	0.000	-0.003	-0.009
S.D.	0.006	0.008	0.000	0.011	0.005	0.000	0.001	0.001
% R.S.D.	150.065	73.812	61.101	102.427	50.640	0.000	23.085	15.747

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.003	-0.045	0.001	-0.025	-0.000	-0.001	-0.000	-0.158
S.D.	0.000	0.007	0.001	0.002	0.000	0.001	0.000	0.020
% R.S.D.	2.749	14.915	77.589	6.731	208.382	46.732	214.520	12.941

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.000	0.003	-0.002	0.000	-0.018
S.D.	0.000	0.018	0.001	0.000	0.039
% R.S.D.	34.720	510.189	34.178	43.335	217.226

Identity 1: ICSA Identity 2: Quality Control 1:24 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.000	0.002	-0.012	0.011	194.026	0.001	0.001	0.000
S.D.	0.001	0.000	0.010	0.005	0.753	0.002	0.000	0.000
% R.S.D.	366.448	5.149	84.917	48.101	0.388	139.168	14.784	104.763

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.004	0.009	0.009	98.450	103.088	-0.001	-0.016	-0.102
S.D.	0.000	0.003	0.002	0.103	0.213	0.002	0.008	0.033
% R.S.D.	11.609	30.774	28.748	0.104	0.207	236.108	50.619	32.929

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.017	0.029	0.003	0.026	0.055	99.657	0.069	185.968
S.D.	0.008	0.008	0.000	0.012	0.003	0.074	0.005	1.380
% R.S.D.	45.473	28.848	6.668	45.779	6.089	0.074	7.429	0.742

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.036	0.000	-0.038	0.000	-0.001	0.014	-0.068
S.D.	0.000	0.014	0.001	0.006	0.000	0.001	0.001	0.008
% R.S.D.	26.946	38.537	1258.514	16.934	299.561	51.285	5.436	11.392

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.001	-0.013	-0.001	0.003	-0.014
S.D.	0.000	0.003	0.001	0.000	0.013
% R.S.D.	46.525	20.675	184.103	16.874	94.889

Identity 1: ICSAB Identity 2: Quality Control 1:26 PM April 24, 1996

WHC-SD-WM-DP-183, REV. 0

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.002	0.002	-0.018	0.005	195.932	0.495	0.495	0.907
S.D.	0.000	0.000	0.008	0.003	0.392	0.003	0.000	0.004
% R.S.D.	21.120	12.499	41.637	53.093	0.200	0.632	0.082	0.386

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.003	0.988	0.005	98.584	103.094	0.507	-0.012	-0.035
S.D.	0.001	0.008	0.002	0.188	0.083	0.005	0.012	0.028
% R.S.D.	0.132	0.768	40.957	0.190	0.081	0.935	102.600	77.633

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.014	0.025	0.504	0.032	0.065	101.228	0.055	186.465
S.D.	0.004	0.003	0.001	0.023	0.009	0.088	0.005	0.724
% R.S.D.	28.791	10.869	0.170	72.266	14.068	0.087	9.254	0.388

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	0.003	1.011	0.984	0.000	1.011	0.016	-0.021
S.D.	0.000	0.010	0.000	0.015	0.000	0.002	0.001	0.016
% R.S.D.	91.099	291.802	0.043	1.515	1354.501	0.218	3.206	76.517

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.505	0.011	0.502	0.506	0.011
S.D.	0.002	0.044	0.001	0.002	0.018
% R.S.D.	0.399	391.807	0.188	0.321	162.412

Identity 1: S96T000563_L Identity 2: .025ml-10ml-2ml-8ml 1:30 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2005.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	338.999	-0.634	-12.700	31.654	58.822	-16.944	-2.476	-0.466
S.D.	2.193	0.207	17.087	2.439	59.701	9.579	0.395	0.179
% R.S.D.	0.647	32.733	134.538	7.705	101.494	56.535	15.944	38.476

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	6.690	21.420	-2.069	64.401	44.534	-6.657	-37.621	1615.085
S.D.	0.745	0.704	4.348	27.572	27.252	1.497	22.216	77.846
% R.S.D.	11.141	3.287	210.120	42.813	61.193	22.494	59.053	4.820

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-61.122	34.444	-0.340	362.404	2530.554	52.886	3.900	107212.770
S.D.	15.397	8.209	0.288	10.761	43.901	26.349	4.087	452.151
% R.S.D.	25.191	23.834	84.548	2.969	1.735	49.822	104.786	0.422

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	14.640	-24.165	0.425	-30.611	1.144	-3.671	14.889	411.285
S.D.	1.560	21.415	0.678	21.618	0.151	0.765	1.634	26.827
% R.S.D.	10.654	88.617	159.684	70.623	13.209	20.848	10.977	6.523

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.230	-36.274	-9.219	-0.101	-166.520
S.D.	0.027	18.870	1.189	0.279	9.371
% R.S.D.	11.564	52.022	12.898	275.696	5.628

Identity 1: S96T000563 Identity 2: .025ml-10ml 1:34 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	335.509	0.027	-20.945	25.808	3.049	0.637	1.069	-0.010
S.D.	0.603	0.027	2.282	0.572	6.371	1.256	0.002	0.047
% R.S.D.	0.180	100.000	10.896	2.218	208.937	197.320	0.149	458.029

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.290	13.656	0.162	11.899	5.568	-1.817	-7.734	1559.380
S.D.	0.195	0.727	0.656	4.559	3.456	0.290	2.962	10.311
% R.S.D.	67.111	5.325	406.389	38.313	62.075	15.953	38.304	0.661

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-4.821	3.263	0.226	370.897	2478.205	4.780	2.978	102717.197
S.D.	3.719	2.228	0.058	2.411	3.209	3.274	0.488	137.925
% R.S.D.	77.144	68.292	25.524	0.650	0.130	68.494	16.393	0.134

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	21.322	-32.842	3.363	11.113	0.087	-0.733	13.221	548.272
S.D.	0.621	1.216	0.206	1.650	0.027	0.100	0.156	2.980
% R.S.D.	2.913	3.704	6.118	14.845	30.602	13.708	1.179	0.544

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.115	9.959	-4.060	0.140	-15.446
S.D.	0.132	10.752	0.159	0.053	3.563
% R.S.D.	11.830	107.971	3.928	37.581	23.066

Identity 1: S96T000563_D Identity 2: .025ml-10ml 1:37 PM April 24, 1996

Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	336.125	0.081	-19.422	26.910	-3.550	-0.621	1.339	0.093
S.D.	1.354	0.027	3.990	1.116	2.149	1.255	0.114	0.159
% R.S.D.	0.403	33.333	20.544	4.148	60.551	202.260	8.479	171.038

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.998	13.464	-3.032	9.193	2.708	-2.283	-3.010	1574.317
S.D.	0.082	0.293	0.325	0.831	0.033	0.291	1.252	6.576
% R.S.D.	4.087	2.174	10.708	9.043	1.203	12.741	41.594	0.418

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-2.345	-2.950	0.302	374.675	2496.030	2.147	2.823	101415.245
S.D.	2.461	2.652	0.032	3.574	27.281	0.040	1.086	675.561
% R.S.D.	104.966	89.878	10.634	0.954	1.093	1.862	38.461	0.666

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	19.985	-17.837	3.231	6.327	0.448	-0.194	14.196	563.759
S.D.	0.245	4.162	0.140	6.359	0.189	0.210	0.671	2.149
% R.S.D.	1.228	23.332	4.331	100.508	42.096	108.614	4.725	0.381

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.231	9.388	-4.536	0.049	-31.074
S.D.	0.066	4.658	0.093	0.053	10.158
% R.S.D.	5.370	49.613	2.044	108.826	32.689

Identity 1: S96T000563_A Identity 2: .025ml-2ml-8ml 1:39 PM April 24, 1996

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 401.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	739.006	398.464	382.752	407.013	372.486	388.811	400.242	369.413
S.D.	0.710	0.680	1.394	0.796	3.028	1.918	0.934	1.297
% R.S.D.	0.096	0.171	0.364	0.195	0.813	0.493	0.233	0.351

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	391.247	408.735	404.985	421.503	397.273	395.296	423.104	2382.561
S.D.	0.737	1.917	1.631	1.262	0.533	1.959	0.693	13.787
% R.S.D.	0.188	0.469	0.403	0.299	0.134	0.496	0.164	0.579

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	386.680	408.957	397.378	831.521	2811.147	376.361	416.038	101594.718
S.D.	3.352	1.251	0.663	10.691	18.120	0.699	0.890	290.778
% R.S.D.	0.867	0.306	0.167	1.286	0.645	0.186	0.214	0.286

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	409.195	440.618	371.870	398.513	385.186	392.871	410.990	934.783
S.D.	0.715	10.439	0.609	5.564	0.640	0.154	1.045	3.011

Identity 1: ICSA Identity 2: Quality Control 1:42 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.003	0.002	-0.003	0.018	196.711	-0.006	0.001	-0.000
S.D.	0.002	0.000	0.004	0.001	0.323	0.000	0.000	0.000
% R.S.D.	65.920	10.657	124.679	5.834	0.164	0.111	69.993	203.639

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.005	0.005	0.009	99.109	103.943	0.002	-0.013	0.037
S.D.	0.000	0.002	0.002	0.161	0.148	0.002	0.011	0.046
% R.S.D.	1.590	35.599	17.666	0.162	0.142	97.658	86.025	125.145

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.010	0.022	0.003	0.029	0.058	99.519	0.063	188.539
S.D.	0.012	0.010	0.000	0.009	0.006	0.068	0.003	0.528
% R.S.D.	114.821	44.850	13.684	29.814	11.067	0.069	5.389	0.280

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.008	-0.045	-0.000	-0.020	0.001	-0.002	0.013	-0.110
S.D.	0.001	0.012	0.001	0.004	0.000	0.001	0.001	0.015
% R.S.D.	12.530	26.385	520.923	19.306	25.667	55.432	4.597	13.534

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.001	0.013	-0.003	0.003	-0.053
S.D.	0.000	0.008	0.001	0.000	0.027
% R.S.D.	16.083	66.871	18.836	13.245	50.884

Identity 1: ICSAB Identity 2: Quality Control 1:45 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.003	0.002	-0.009	0.005	196.509	0.497	0.497	0.910
S.D.	0.001	0.000	0.004	0.001	0.181	0.002	0.001	0.003
% R.S.D.	23.194	2.038	42.182	16.813	0.092	0.363	0.193	0.378

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.999	0.991	0.006	98.925	103.180	0.507	-0.003	-0.061
S.D.	0.002	0.007	0.001	0.270	0.195	0.001	0.007	0.004
% R.S.D.	0.190	0.669	24.360	0.273	0.189	0.268	230.800	7.128

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.007	0.029	0.506	0.028	0.073	100.807	0.072	187.440
S.D.	0.003	0.002	0.001	0.015	0.003	0.113	0.003	0.586
% R.S.D.	37.372	6.748	0.230	52.141	4.633	0.112	4.535	0.312

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.004	-0.002	1.011	1.000	-0.000	1.010	0.016	-0.016
S.D.	0.001	0.030	0.003	0.019	0.000	0.004	0.000	0.003
% R.S.D.	25.476	1501.412	0.268	1.883	766.816	0.365	1.685	16.221

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.506	-0.015	0.502	0.508	-0.039
S.D.	0.002	0.011	0.002	0.002	0.012
% R.S.D.	0.313	73.114	0.460	0.320	29.516

Identity 1: CCV Identity 2: Quality Control 1:49 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.053	5.029	5.040	4.829	4.909	5.117	5.072	4.845
S.D.	0.004	0.004	0.026	0.001	0.004	0.010	0.017	0.051
% R.S.D.	0.077	0.083	0.518	0.028	0.085	0.197	0.328	1.062

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.140	5.107	5.093	5.238	5.019	5.120	5.295	9.809
S.D.	0.011	0.016	0.002	0.017	0.009	0.007	0.041	0.025
% R.S.D.	0.207	0.312	0.048	0.318	0.170	0.133	0.782	0.257

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.065	5.079	5.017	5.675	5.100	4.942	5.153	4.871
S.D.	0.020	0.008	0.008	0.061	0.006	0.013	0.029	0.048
% R.S.D.	0.389	0.163	0.167	1.082	0.109	0.259	0.566	0.992

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.058	5.204	4.964	5.113	4.911	5.120	5.143	4.910
S.D.	0.008	0.025	0.006	0.019	0.004	0.008	0.009	0.043
% R.S.D.	0.166	0.489	0.111	0.362	0.079	0.161	0.168	0.868

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	5.097	4.775	5.177	5.252	4.790
S.D.	0.011	0.050	0.004	0.002	0.022
% R.S.D.	0.220	1.041	0.070	0.042	0.456

Identity 1: CCB Identity 2: Quality Control 1:52 PM April 24, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	-0.000	0.006	0.007	-0.016	-0.007	0.000	-0.000
S.D.	0.001	0.000	0.022	0.001	0.003	0.000	0.000	0.000
% R.S.D.	62.699	303.109	373.435	16.611	18.173	0.096	560.273	288.729

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.001	0.004	0.001	0.001	-0.001	-0.025	-0.028
S.D.	0.000	0.002	0.001	0.001	0.000	0.000	0.001	0.054
% R.S.D.	27.042	158.078	37.226	276.491	41.023	76.265	4.328	196.012

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.026	0.001	-0.000	0.016	-0.004	0.001	0.003	-0.002
S.D.	0.011	0.012	0.000	0.008	0.002	0.001	0.003	0.001
% R.S.D.	43.894	977.538	904.157	51.098	41.484	76.376	115.322	57.744

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.002	-0.010	-0.001	-0.000	0.000	-0.001	0.003	-0.104
S.D.	0.002	0.009	0.001	0.007	0.000	0.000	0.001	0.025
% R.S.D.	89.309	93.137	159.882	2418.865	194.759	27.208	20.548	23.651

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	0.023	-0.003	0.000	-0.072
S.D.	0.000	0.012	0.001	0.000	0.025
% R.S.D.	114.486	50.846	26.929	180.594	35.221

File # 960429A.DAT

LABCORE Data Entry Template for Worklist# 8114

Analyst: B. GOECKE **Instrument:** ICP01 _____ **Book#** 53648A

Method: LA-505-151/~~161~~ 4-29-96 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	SERDIL	S96T001546	0	D	@ICP-D01	LIQUID		
6	SAMPLE	S96T001546	0	D	@ICP-D01	LIQUID	96000174	C-106 GRAB
		Analytes Requested:			AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			
7	DUP	S96T001546	0	D	@ICP-D01	LIQUID		
8	SPK	S96T001546	0	D	@ICP-D01	LIQUID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SERDIL	S96T001544	0	D	@ICP-D01	LIQUID		
12	SAMPLE	S96T001544	0	D	@ICP-D01	LIQUID	96000082	C-106 GRAB
		Analytes Requested:			AG-D-01 , AL-D-01 , AS-D-01 , B-D-01 , BA-D-01 , BE-D-01 , BI-D-01 , CA-D-01 , CD-D-01 , CE-D-01 , CO-D-01 , CR-D-01 , CU-D-01 , FE-D-01 , K-D-01 , LA-D-01 , LI-D-01 , MG-D-01 , MN-D-01 , MO-D-01 , NA-D-01 , ND-D-01 , NI-D-01 , P-D-01 , PB-D-01 , S-D-01 , SB-D-01 , SE-D-01 , SI-D-01 , SM-D-01 , SR-D-01 , TI-D-01 , TL-D-01 , U-D-01 , V-D-01 , ZN-D-01 , ZR-D-01			

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 8114

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
13	DUP	S96T001544	0	D	@ICP-D01	LIQUID		
14	SPK	S96T001544	0	D	@ICP-D01	LIQUID		
15	ICSA				@ICP-QC	QC		
16	ICSAB				@ICP-QC	QC		
17	CCV				@ICP-QC	QC		
18	CCB				@ICP-QC	QC		

Final page for worklist # 8114

Analyst Signature: [illegible] Date: 4-29-96

Reviewed by:
Analyst Signature: Saul R. Parry Date: 5/1/96

		D.F.
S96T001546-L	.025ml-10-L-2L-final	2005
S96T001546	.025ml-10-L	401
S96T001546-D	.025ml-10-L	401
S96T001546-A	.025-L-2L-F-L	401
S96T001544-L	.025-L-10ml-2-L-F-L	2005
S96T001544	.025-L-10-L	401
S96T001544-D	.025ml-10-L	401
S96T001544-A	.025ml-2L-F-L	401

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Completed Worklist Report for Worklist# 8114

Analyst: **Instrument:** ICP01 **Book#** 53B48A

Method: LA-505-151 Rev/Mod D-3

Worklist Comment: ICP C-106 (DIRECT)

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	ICV	0		●ICP-QC	AG	QC	5.0	4.89e+00	97.800	% Recovery
1	ICV	0		●ICP-QC	AL	QC	5.0	5.00e+00	100.000	% Recovery
1	ICV	0		●ICP-QC	AS	QC	5.0	5.15e+00	103.000	% Recovery
1	ICV	0		●ICP-QC	B	QC	5.0	5.16e+00	103.200	% Recovery
1	ICV	0		●ICP-QC	BA	QC	5.0	5.20e+00	104.000	% Recovery
1	ICV	0		●ICP-QC	BE	QC	5.0	5.28e+00	105.600	% Recovery
1	ICV	0		●ICP-QC	BI	QC	5.0	5.07e+00	101.400	% Recovery
1	ICV	0		●ICP-QC	CA	QC	5.0	5.16e+00	103.200	% Recovery
1	ICV	0		●ICP-QC	CD	QC	5.0	4.98e+00	99.600	% Recovery
1	ICV	0		●ICP-QC	CE	QC	5.0	5.25e+00	105.000	% Recovery
1	ICV	0		●ICP-QC	CO	QC	5.0	5.00e+00	100.000	% Recovery
1	ICV	0		●ICP-QC	CR	QC	5.0	4.94e+00	98.800	% Recovery
1	ICV	0		●ICP-QC	CU	QC	5.0	5.25e+00	105.000	% Recovery
1	ICV	0		●ICP-QC	FE	QC	5.0	5.10e+00	102.000	% Recovery
1	ICV	0		●ICP-QC	K	QC	5.0	5.07e+00	101.400	% Recovery
1	ICV	0		●ICP-QC	LA	QC	5.0	5.13e+00	102.600	% Recovery
1	ICV	0		●ICP-QC	LI	QC	5.0	5.32e+00	106.400	% Recovery
1	ICV	0		●ICP-QC	MG	QC	5.0	4.85e+00	97.000	% Recovery
1	ICV	0		●ICP-QC	MN	QC	5.0	4.97e+00	99.400	% Recovery
1	ICV	0		●ICP-QC	MO	QC	5.0	5.01e+00	100.200	% Recovery
1	ICV	0		●ICP-QC	NA	QC	5.0	5.25e+00	105.000	% Recovery
1	ICV	0		●ICP-QC	ND	QC	5.0	5.42e+00	108.400	% Recovery
1	ICV	0		●ICP-QC	NI	QC	5.0	4.97e+00	99.400	% Recovery
1	ICV	0		●ICP-QC	P	QC	5.0	5.10e+00	102.000	% Recovery
1	ICV	0		●ICP-QC	PB	QC	5.0	4.97e+00	99.400	% Recovery
1	ICV	0		●ICP-QC	S	QC	5.0	4.97e+00	99.400	% Recovery
1	ICV	0		●ICP-QC	SB	QC	5.0	4.84e+00	96.800	% Recovery
1	ICV	0		●ICP-QC	SE	QC	5.0	5.30e+00	106.000	% Recovery
1	ICV	0		●ICP-QC	SI	QC	5.0	4.78e+00	95.600	% Recovery
1	ICV	0		●ICP-QC	SM	QC	5.0	5.29e+00	105.800	% Recovery
1	ICV	0		●ICP-QC	SR	QC	5.0	5.17e+00	103.400	% Recovery
1	ICV	0		●ICP-QC	TI	QC	5.0	4.95e+00	99.000	% Recovery
1	ICV	0		●ICP-QC	TL	QC	5.0	4.86e+00	97.200	% Recovery
1	ICV	0		●ICP-QC	U	QC	10.0	1.00e+01	100.000	% Recovery
1	ICV	0		●ICP-QC	V	QC	5.0	5.10e+00	102.000	% Recovery
1	ICV	0		●ICP-QC	ZN	QC	5.0	5.00e+00	100.000	% Recovery
1	ICV	0		●ICP-QC	ZR	QC	5.0	5.07e+00	101.400	% Recovery
2	ICB	0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
2	ICB	0		●ICP-QC	AL	QC	1	<5.00e-2		ug/g
2	ICB	0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
2	ICB	0		●ICP-QC	B	QC	1	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
2	ICB		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
2	ICB		0		●ICP-QC	BI	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	CA	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
2	ICB		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
2	ICB		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	FE	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
2	ICB		0		●ICP-QC	LA	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	MG	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	MN	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	NA	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
2	ICB		0		●ICP-QC	P	QC	1	<2.00e-1		ug/g
2	ICB		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	S	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
2	ICB		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
2	ICB		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	TL	QC	1	<2.00e-1		ug/g
2	ICB		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
2	ICB		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
2	ICB		0		●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
2	ICB		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	AL	QC	200	1.99e+02	99.500	% Recovery
3	ICSA		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
3	ICSA		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	CA	QC	100.	1.01e+02	101.000	% Recovery
3	ICSA		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
3	ICSA		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
3	ICSA		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	FE	QC	100.	9.68e+01	96.800	% Recovery
3	ICSA		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
3	ICSA		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

WHC-SD-WM-DP-183, REV. 0

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
3	ICSA		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	MG	QC	100.	9.51e+01	95.100	% Recovery
3	ICSA		0		●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	NA	QC	200	2.02e+02	101.000	% Recovery
3	ICSA		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
3	ICSA		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
3	ICSA		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
3	ICSA		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
3	ICSA		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
3	ICSA		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
3	ICSA		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
3	ICSA		0		●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
3	ICSA		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	AG	QC	1.0	1.01e+00	101.000	% Recovery
4	ICSAB		0		●ICP-QC	AL	QC	200	1.99e+02	99.500	% Recovery
4	ICSAB		0		●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	BA	QC	0.5	5.23e-01	104.600	% Recovery
4	ICSAB		0		●ICP-QC	BE	QC	0.5	5.14e-01	102.800	% Recovery
4	ICSAB		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	CA	QC	100.	1.01e+02	101.000	% Recovery
4	ICSAB		0		●ICP-QC	CD	QC	1.0	9.92e-01	99.200	% Recovery
4	ICSAB		0		●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	CO	QC	0.5	4.89e-01	97.800	% Recovery
4	ICSAB		0		●ICP-QC	CR	QC	0.5	4.94e-01	98.800	% Recovery
4	ICSAB		0		●ICP-QC	CU	QC	0.5	5.15e-01	103.000	% Recovery
4	ICSAB		0		●ICP-QC	FE	QC	100	9.75e+01	97.500	% Recovery
4	ICSAB		0		●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
4	ICSAB		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	LI	QC	1.0	9.91e-01	99.100	% Recovery
4	ICSAB		0		●ICP-QC	MG	QC	100.	9.70e+01	97.000	% Recovery
4	ICSAB		0		●ICP-QC	MN	QC	0.5	4.97e-01	99.400	% Recovery
4	ICSAB		0		●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	NA	QC	200	2.02e+02	101.000	% Recovery
4	ICSAB		0		●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	NI	QC	1.0	9.73e-01	97.300	% Recovery
4	ICSAB		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
4	ICSAB		0		●ICP-QC	PB	QC	1.0	9.70e-01	97.000	% Recovery
4	ICSAB		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
4	ICSAB		0		●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit
4	ICSAB		0		●ICP-QC	SI	QC	1.0		<5.00e-2		ug/g
4	ICSAB		0		●ICP-QC	SM	QC	1.0		<1.00e-1		ug/g
4	ICSAB		0		●ICP-QC	SR	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	TI	QC	1.0		<1.00e-2		ug/g
4	ICSAB		0		●ICP-QC	TL	QC	1.0		<2.00e-1		ug/g
4	ICSAB		0		●ICP-QC	U	QC	1.0		<5.00e-1		ug/g
4	ICSAB		0		●ICP-QC	V	QC	0.5		4.98e-01	99.600	% Recovery
4	ICSAB		0		●ICP-QC	ZN	QC	1.0		9.87e-01	98.700	% Recovery
4	ICSAB		0		●ICP-QC	ZR	QC	1.0		<1.00e-2		ug/g
5	SAMPLE	S96T001546	0	D	●ICP-D01	AG-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	AL-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	AS-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	B-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	BA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	BE-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	BI-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	CA-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	CD-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	CE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	CO-D-01	LIQUID	N/A	<	8.02e+00	8.020	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	CR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	CU-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	FE-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	K-D-01	LIQUID	N/A		5.08e+02	200.000	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	LA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	LI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	MG-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	MN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	MO-D-01	LIQUID	N/A		2.18e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	NA-D-01	LIQUID	N/A		1.10e+05	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	ND-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	NI-D-01	LIQUID	N/A		1.64e+01	8.020	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	P-D-01	LIQUID	N/A		2.92e+02	80.200	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	PB-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	S-D-01	LIQUID	N/A		2.42e+03	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	SB-D-01	LIQUID	N/A	<	2.41e+01	24.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	SE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	SI-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	SM-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	SR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	TI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	TL-D-01	LIQUID	N/A	<	8.02e+01	80.200	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	U-D-01	LIQUID	N/A		1.76e+03	200.000	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	V-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	ZN-D-01	LIQUID	N/A		4.32e+00	4.010	ug/mL
5	SAMPLE	S96T001546	0	D	●ICP-D01	ZR-D-01	LIQUID	N/A		3.81e+02	4.010	ug/mL
6	DUP	S96T001546	0	D	●ICP-D01	AG-D-01	LIQUID	<4.01e0		<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01	AL-D-01	LIQUID	<2.01e1		<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01	AS-D-01	LIQUID	<4.01e1		<4.01e1		RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
6	DUP	S96T001546	0	D	●ICP-D01 B-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 BA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 BE-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 BI-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 CA-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 CD-D-01	LIQUID	<2.00e0	<2.00e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 CE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 CO-D-01	LIQUID	<8.02e0	<8.02e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 CR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 CU-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 FE-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 K-D-01	LIQUID	5.08e+02	4.96e+02	2.390	RPD
6	DUP	S96T001546	0	D	●ICP-D01 LA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 LI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 MG-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 MN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 MO-D-01	LIQUID	2.18e+01	2.18e+01	0.000	RPD
6	DUP	S96T001546	0	D	●ICP-D01 NA-D-01	LIQUID	1.10e+05	1.06e+05	3.704	RPD
6	DUP	S96T001546	0	D	●ICP-D01 ND-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 NI-D-01	LIQUID	1.64e+01	1.71e+01	4.179	RPD
6	DUP	S96T001546	0	D	●ICP-D01 P-D-01	LIQUID	2.92e+02	2.99e+02	2.369	RPD
6	DUP	S96T001546	0	D	●ICP-D01 PB-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 S-D-01	LIQUID	2.42e+03	2.35e+03	2.935	RPD
6	DUP	S96T001546	0	D	●ICP-D01 SB-D-01	LIQUID	<2.41e1	<2.41e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 SE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 SI-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 SM-D-01	LIQUID	<4.01e1	<4.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 SR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 TL-D-01	LIQUID	<8.02e1	<8.02e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 U-D-01	LIQUID	1.76e+03	1.79e+03	1.690	RPD
6	DUP	S96T001546	0	D	●ICP-D01 V-D-01	LIQUID	<2.01e1	<2.01e1		RPD
6	DUP	S96T001546	0	D	●ICP-D01 ZN-D-01	LIQUID	4.32e+00	<4.01e0		RPD
6	DUP	S96T001546	0	D	●ICP-D01 ZR-D-01	LIQUID	3.81e+02	3.77e+02	1.055	RPD
6	DUP	S96T001546	0	D	●ICP-D01 TI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
7	SPK	S96T001546	0	D	●ICP-D01 AG-D-01	LIQUID	1	0.900	90.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 AL-D-01	LIQUID	1	0.963	96.300	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 AS-D-01	LIQUID	1	1.033	103.300	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 B-D-01	LIQUID	1	1.010	101.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 BA-D-01	LIQUID	1	1.028	102.800	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 BE-D-01	LIQUID	1	1.025	102.500	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 BI-D-01	LIQUID	1	0.895	89.500	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 CA-D-01	LIQUID	1	1.042	104.200	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 CD-D-01	LIQUID	1	0.948	94.800	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 CE-D-01	LIQUID	1	1.008	100.800	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 CO-D-01	LIQUID	1	0.950	95.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 CR-D-01	LIQUID	1	0.948	94.800	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 CU-D-01	LIQUID	1	1.023	102.300	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 FE-D-01	LIQUID	1	1.000	100.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01 K-D-01	LIQUID	1	0.812	81.200	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
7	SPK	S96T001546	0	D	●ICP-D01	LA-D-01	LIQUID	1	1.015	101.500	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	LI-D-01	LIQUID	1	1.000	100.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	MG-D-01	LIQUID	1	0.920	92.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	MN-D-01	LIQUID	1	0.960	96.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	MO-D-01	LIQUID	1	0.956	95.600	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	NA-D-01	LIQUID	1	<1.00e-1		% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	ND-D-01	LIQUID	1	1.095	109.500	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	NI-D-01	LIQUID	1	0.944	94.400	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	P-D-01	LIQUID	1	0.981	98.100	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	PB-D-01	LIQUID	1	0.963	96.300	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	S-D-01	LIQUID	1	0.264	26.400	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	SB-D-01	LIQUID	1	0.915	91.500	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	SE-D-01	LIQUID	1	1.122	112.200	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	SI-D-01	LIQUID	1	0.950	95.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	SM-D-01	LIQUID	1	1.090	109.000	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	SR-D-01	LIQUID	1	1.023	102.300	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	TL-D-01	LIQUID	1	0.908	90.800	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	U-D-01	LIQUID	2	1.774	88.700	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	V-D-01	LIQUID	1	0.983	98.300	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	ZN-D-01	LIQUID	1	0.932	93.200	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	ZR-D-01	LIQUID	1	0.935	93.500	% Recovery
7	SPK	S96T001546	0	D	●ICP-D01	TI-D-01	LIQUID	1	0.965	96.500	% Recovery
8	CCV		0		●ICP-QC	AG	QC	5.0	4.89e+00	97.800	% Recovery
8	CCV		0		●ICP-QC	AL	QC	5.0	4.93e+00	98.600	% Recovery
8	CCV		0		●ICP-QC	AS	QC	5.0	5.05e+00	101.000	% Recovery
8	CCV		0		●ICP-QC	B	QC	5.0	5.15e+00	103.000	% Recovery
8	CCV		0		●ICP-QC	BA	QC	5.0	5.12e+00	102.400	% Recovery
8	CCV		0		●ICP-QC	BE	QC	5.0	5.25e+00	105.000	% Recovery
8	CCV		0		●ICP-QC	BI	QC	5.0	5.03e+00	100.600	% Recovery
8	CCV		0		●ICP-QC	CA	QC	5.0	5.12e+00	102.400	% Recovery
8	CCV		0		●ICP-QC	CD	QC	5.0	4.96e+00	99.200	% Recovery
8	CCV		0		●ICP-QC	CE	QC	5.0	5.11e+00	102.200	% Recovery
8	CCV		0		●ICP-QC	CO	QC	5.0	4.92e+00	98.400	% Recovery
8	CCV		0		●ICP-QC	CR	QC	5.0	4.90e+00	98.000	% Recovery
8	CCV		0		●ICP-QC	CU	QC	5.0	5.21e+00	104.200	% Recovery
8	CCV		0		●ICP-QC	FE	QC	5.0	5.12e+00	102.400	% Recovery
8	CCV		0		●ICP-QC	K	QC	5.0	5.16e+00	103.200	% Recovery
8	CCV		0		●ICP-QC	LA	QC	5.0	5.10e+00	102.000	% Recovery
8	CCV		0		●ICP-QC	LI	QC	5.0	5.20e+00	104.000	% Recovery
8	CCV		0		●ICP-QC	MG	QC	5.0	4.79e+00	95.800	% Recovery
8	CCV		0		●ICP-QC	MN	QC	5.0	4.96e+00	99.200	% Recovery
8	CCV		0		●ICP-QC	MO	QC	5.0	4.90e+00	98.000	% Recovery
8	CCV		0		●ICP-QC	NA	QC	5.0	5.18e+00	103.600	% Recovery
8	CCV		0		●ICP-QC	ND	QC	5.0	5.47e+00	109.400	% Recovery
8	CCV		0		●ICP-QC	NI	QC	5.0	4.95e+00	99.000	% Recovery
8	CCV		0		●ICP-QC	P	QC	5.0	5.03e+00	100.600	% Recovery
8	CCV		0		●ICP-QC	PB	QC	5.0	4.96e+00	99.200	% Recovery
8	CCV		0		●ICP-QC	S	QC	5.0	4.86e+00	97.200	% Recovery
8	CCV		0		●ICP-QC	SB	QC	5.0	4.80e+00	96.000	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A		Test	Matrix	Actual		Found	DL or Yield	Unit
8	CCV		0		●ICP-QC	SE	QC	5.0		5.23e+00	104.600	% Recovery
8	CCV		0		●ICP-QC	SI	QC	5.0		4.71e+00	94.200	% Recovery
8	CCV		0		●ICP-QC	SM	QC	5.0		5.25e+00	105.000	% Recovery
8	CCV		0		●ICP-QC	SR	QC	5.0		5.08e+00	101.600	% Recovery
8	CCV		0		●ICP-QC	TI	QC	5.0		4.86e+00	97.200	% Recovery
8	CCV		0		●ICP-QC	TL	QC	5.0		4.84e+00	96.800	% Recovery
8	CCV		0		●ICP-QC	U	QC	10.0		9.88e+00	98.800	% Recovery
8	CCV		0		●ICP-QC	V	QC	5.0		5.08e+00	101.600	% Recovery
8	CCV		0		●ICP-QC	ZN	QC	5.0		4.97e+00	99.400	% Recovery
8	CCV		0		●ICP-QC	ZR	QC	5.0		5.04e+00	100.800	% Recovery
9	CCB		0		●ICP-QC	AG	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	AL	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	AS	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	B	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	BA	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	BE	QC	1		<5.00e-3		ug/g
9	CCB		0		●ICP-QC	BI	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	CA	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	CD	QC	1		<5.00e-3		ug/g
9	CCB		0		●ICP-QC	CE	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	CO	QC	1		<2.00e-2		ug/g
9	CCB		0		●ICP-QC	CR	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	CU	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	FE	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	K	QC	1		<5.00e-1		ug/g
9	CCB		0		●ICP-QC	LA	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	LI	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	MG	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	MN	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	MO	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	NA	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	ND	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	NI	QC	1		<2.00e-2		ug/g
9	CCB		0		●ICP-QC	P	QC	1		<2.00e-1		ug/g
9	CCB		0		●ICP-QC	PB	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	S	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	SB	QC	1		<6.00e-2		ug/g
9	CCB		0		●ICP-QC	SE	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	SI	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	SM	QC	1		<1.00e-1		ug/g
9	CCB		0		●ICP-QC	SR	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	TI	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	TL	QC	1		<2.00e-1		ug/g
9	CCB		0		●ICP-QC	U	QC	1		<5.00e-1		ug/g
9	CCB		0		●ICP-QC	V	QC	1		<5.00e-2		ug/g
9	CCB		0		●ICP-QC	ZN	QC	1		<1.00e-2		ug/g
9	CCB		0		●ICP-QC	ZR	QC	1		<1.00e-2		ug/g
10	SAMPLE	S96T001544	0	D	●ICP-D01	AG-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	AL-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A	Test		Matrix	Actual		Found	DL or Yield	Unit
10	SAMPLE	S96T001544	0	D	●ICP-D01	AS-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	B-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	BA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	BE-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	BI-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	CA-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	CD-D-01	LIQUID	N/A	<	2.00e+00	2.000	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	CE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	CO-D-01	LIQUID	N/A	<	8.02e+00	8.020	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	CR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	CU-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	FE-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	K-D-01	LIQUID	N/A		5.92e+02	200.000	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	LA-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	LI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	MG-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	MN-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	MO-D-01	LIQUID	N/A		2.23e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	NA-D-01	LIQUID	N/A		1.10e+05	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	ND-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	NI-D-01	LIQUID	N/A		1.48e+01	8.020	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	P-D-01	LIQUID	N/A		3.52e+02	80.200	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	PB-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	S-D-01	LIQUID	N/A		2.37e+03	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	SB-D-01	LIQUID	N/A	<	2.41e+01	24.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	SE-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	SI-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	SM-D-01	LIQUID	N/A	<	4.01e+01	40.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	SR-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	TI-D-01	LIQUID	N/A	<	4.01e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	TL-D-01	LIQUID	N/A	<	8.02e+01	80.200	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	U-D-01	LIQUID	N/A		1.54e+03	200.000	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	V-D-01	LIQUID	N/A	<	2.01e+01	20.100	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	ZN-D-01	LIQUID	N/A		5.25e+00	4.010	ug/mL
10	SAMPLE	S96T001544	0	D	●ICP-D01	ZR-D-01	LIQUID	N/A		3.72e+02	4.010	ug/mL
11	DUP	S96T001544	0	D	●ICP-D01	AG-D-01	LIQUID	<4.01e0		<4.01e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01	AL-D-01	LIQUID	<2.01e1		<2.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	AS-D-01	LIQUID	<4.01e1		<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	B-D-01	LIQUID	<2.01e1		<2.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	BA-D-01	LIQUID	<2.01e1		<2.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	BE-D-01	LIQUID	<2.00e0		<2.00e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01	BI-D-01	LIQUID	<4.01e1		<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	CA-D-01	LIQUID	<4.01e1		<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	CD-D-01	LIQUID	<2.00e0		<2.00e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01	CE-D-01	LIQUID	<4.01e1		<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01	CO-D-01	LIQUID	<8.02e0		<8.02e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01	CR-D-01	LIQUID	<4.01e0		<4.01e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01	CU-D-01	LIQUID	<4.01e0		<4.01e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01	FE-D-01	LIQUID	<2.01e1		<2.01e1		RPD

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
11	DUP	S96T001544	0	D	●ICP-D01 K-D-01	LIQUID	5.92e+02	5.66e+02	4.491	RPD
11	DUP	S96T001544	0	D	●ICP-D01 LA-D-01	LIQUID	<2.01e1	<2.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 LI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01 MG-D-01	LIQUID	<4.01e1	<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 MN-D-01	LIQUID	<4.01e0	<4.01e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01 MO-D-01	LIQUID	2.23e+01	2.16e+01	3.189	RPD
11	DUP	S96T001544	0	D	●ICP-D01 NA-D-01	LIQUID	1.10e+05	1.10e+05	0.000	RPD
11	DUP	S96T001544	0	D	●ICP-D01 ND-D-01	LIQUID	<4.01e1	<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 NI-D-01	LIQUID	1.48e+01	1.56e+01	5.263	RPD
11	DUP	S96T001544	0	D	●ICP-D01 P-D-01	LIQUID	3.52e+02	3.72e+02	5.525	RPD
11	DUP	S96T001544	0	D	●ICP-D01 PB-D-01	LIQUID	<4.01e1	<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 S-D-01	LIQUID	2.37e+03	2.28e+03	3.871	RPD
11	DUP	S96T001544	0	D	●ICP-D01 SB-D-01	LIQUID	<2.41e1	<2.41e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 SE-D-01	LIQUID	<4.01e1	<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 SI-D-01	LIQUID	<2.01e1	<2.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 SM-D-01	LIQUID	<4.01e1	<4.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 SR-D-01	LIQUID	<4.01e0	<4.01e0		RPD
11	DUP	S96T001544	0	D	●ICP-D01 TL-D-01	LIQUID	<8.02e1	<8.02e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 U-D-01	LIQUID	1.54e+03	1.64e+03	6.289	RPD
11	DUP	S96T001544	0	D	●ICP-D01 V-D-01	LIQUID	<2.01e1	<2.01e1		RPD
11	DUP	S96T001544	0	D	●ICP-D01 ZN-D-01	LIQUID	5.25e+00	5.98e+00	13.001	RPD
11	DUP	S96T001544	0	D	●ICP-D01 ZR-D-01	LIQUID	3.72e+02	3.78e+02	1.600	RPD
11	DUP	S96T001544	0	D	●ICP-D01 TI-D-01	LIQUID	<4.01e0	<4.01e0		RPD
12	SPK	S96T001544	0	D	●ICP-D01 AG-D-01	LIQUID	1	0.903	90.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 AL-D-01	LIQUID	1	0.953	95.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 AS-D-01	LIQUID	1	1.042	104.200	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 B-D-01	LIQUID	1	1.003	100.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 BA-D-01	LIQUID	1	1.020	102.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 BE-D-01	LIQUID	1	1.020	102.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 BI-D-01	LIQUID	1	0.890	89.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 CA-D-01	LIQUID	1	1.075	107.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 CD-D-01	LIQUID	1	0.940	94.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 CE-D-01	LIQUID	1	1.020	102.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 CO-D-01	LIQUID	1	0.933	93.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 CR-D-01	LIQUID	1	0.935	93.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 CU-D-01	LIQUID	1	1.023	102.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 FE-D-01	LIQUID	1	1.033	103.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 K-D-01	LIQUID	1	0.899	89.900	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 LA-D-01	LIQUID	1	1.005	100.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 LI-D-01	LIQUID	1	0.985	98.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 MG-D-01	LIQUID	1	0.913	91.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 MN-D-01	LIQUID	1	0.958	95.800	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 MO-D-01	LIQUID	1	0.940	94.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 NA-D-01	LIQUID	1	1.309	130.900	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 ND-D-01	LIQUID	1	1.125	112.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 NI-D-01	LIQUID	1	0.933	93.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 P-D-01	LIQUID	1	1.020	102.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 PB-D-01	LIQUID	1	0.965	96.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01 S-D-01	LIQUID	1	0.705	70.500	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A		Test	Matrix	Actual	Found	DL or Yield	Unit
12	SPK	S96T001544	0	D	●ICP-D01	SB-D-01	LIQUID	1	0.918	91.800	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	SE-D-01	LIQUID	1	1.137	113.700	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	SI-D-01	LIQUID	1	0.940	94.000	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	SM-D-01	LIQUID	1	1.075	107.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	SR-D-01	LIQUID	1	1.013	101.300	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	TL-D-01	LIQUID	1	0.898	89.800	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	U-D-01	LIQUID	2	2.168	108.400	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	V-D-01	LIQUID	1	0.975	97.500	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	ZN-D-01	LIQUID	1	0.927	92.700	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	ZR-D-01	LIQUID	1	1.011	101.100	% Recovery
12	SPK	S96T001544	0	D	●ICP-D01	TI-D-01	LIQUID	1	0.955	95.500	% Recovery
13	ICSA		0		●ICP-QC	AG	QC	1	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	AL	QC	200	1.97e+02	98.500	% Recovery
13	ICSA		0		●ICP-QC	AS	QC	1	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	B	QC	1	<5.00e-2		ug/g
13	ICSA		0		●ICP-QC	BA	QC	1	<5.00e-2		ug/g
13	ICSA		0		●ICP-QC	BE	QC	1	<5.00e-3		ug/g
13	ICSA		0		●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	CA	QC	100.	1.01e+02	101.000	% Recovery
13	ICSA		0		●ICP-QC	CD	QC	1	<5.00e-3		ug/g
13	ICSA		0		●ICP-QC	CE	QC	1	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	CO	QC	1	<2.00e-2		ug/g
13	ICSA		0		●ICP-QC	CR	QC	1	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	CU	QC	1	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	FE	QC	100.	9.75e+01	97.500	% Recovery
13	ICSA		0		●ICP-QC	K	QC	1	<5.00e-1		ug/g
13	ICSA		0		●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
13	ICSA		0		●ICP-QC	LI	QC	1	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	MG	QC	100.	9.58e+01	95.800	% Recovery
13	ICSA		0		●ICP-QC	MN	QC	1.0	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	MO	QC	1	<5.00e-2		ug/g
13	ICSA		0		●ICP-QC	NA	QC	200	1.97e+02	98.500	% Recovery
13	ICSA		0		●ICP-QC	ND	QC	1	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	NI	QC	1	<2.00e-2		ug/g
13	ICSA		0		●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
13	ICSA		0		●ICP-QC	PB	QC	1	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	SB	QC	1	<6.00e-2		ug/g
13	ICSA		0		●ICP-QC	SE	QC	1	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	SI	QC	1	<5.00e-2		ug/g
13	ICSA		0		●ICP-QC	SM	QC	1	<1.00e-1		ug/g
13	ICSA		0		●ICP-QC	SR	QC	1	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	TI	QC	1	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
13	ICSA		0		●ICP-QC	U	QC	1	<5.00e-1		ug/g
13	ICSA		0		●ICP-QC	V	QC	1	<5.00e-2		ug/g
13	ICSA		0		●ICP-QC	ZN	QC	1.0	<1.00e-2		ug/g
13	ICSA		0		●ICP-QC	ZR	QC	1	<1.00e-2		ug/g
14	ICSAB		0		●ICP-QC	AG	QC	1.0	9.98e-01	99.800	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
14	ICSAB		0	●ICP-QC	AL	QC	200	1.98e+02	99.000	% Recovery
14	ICSAB		0	●ICP-QC	AS	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	B	QC	1.0	<5.00e-2		ug/g
14	ICSAB		0	●ICP-QC	BA	QC	0.5	5.22e-01	104.400	% Recovery
14	ICSAB		0	●ICP-QC	BE	QC	0.5	5.11e-01	102.200	% Recovery
14	ICSAB		0	●ICP-QC	BI	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	CA	QC	100.	1.01e+02	101.000	% Recovery
14	ICSAB		0	●ICP-QC	CD	QC	1.0	9.83e-01	98.300	% Recovery
14	ICSAB		0	●ICP-QC	CE	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	CO	QC	0.5	4.76e-01	95.200	% Recovery
14	ICSAB		0	●ICP-QC	CR	QC	0.5	4.92e-01	98.400	% Recovery
14	ICSAB		0	●ICP-QC	CU	QC	0.5	5.14e-01	102.800	% Recovery
14	ICSAB		0	●ICP-QC	FE	QC	100	9.76e+01	97.600	% Recovery
14	ICSAB		0	●ICP-QC	K	QC	1.0	<5.00e-1		ug/g
14	ICSAB		0	●ICP-QC	LA	QC	1.0	<5.00e-2		ug/g
14	ICSAB		0	●ICP-QC	LI	QC	1.0	9.77e-01	97.700	% Recovery
14	ICSAB		0	●ICP-QC	MG	QC	100.	9.58e+01	95.800	% Recovery
14	ICSAB		0	●ICP-QC	MN	QC	0.5	4.96e-01	99.200	% Recovery
14	ICSAB		0	●ICP-QC	MO	QC	1.0	<5.00e-2		ug/g
14	ICSAB		0	●ICP-QC	NA	QC	200	2.00e+02	100.000	% Recovery
14	ICSAB		0	●ICP-QC	ND	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	NI	QC	1.0	9.72e-01	97.200	% Recovery
14	ICSAB		0	●ICP-QC	P	QC	1.0	<2.00e-1		ug/g
14	ICSAB		0	●ICP-QC	PB	QC	1.0	9.86e-01	98.600	% Recovery
14	ICSAB		0	●ICP-QC	S	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	SB	QC	1.0	<6.00e-2		ug/g
14	ICSAB		0	●ICP-QC	SE	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	SI	QC	1.0	<5.00e-2		ug/g
14	ICSAB		0	●ICP-QC	SM	QC	1.0	<1.00e-1		ug/g
14	ICSAB		0	●ICP-QC	SR	QC	1.0	<1.00e-2		ug/g
14	ICSAB		0	●ICP-QC	TI	QC	1.0	<1.00e-2		ug/g
14	ICSAB		0	●ICP-QC	TL	QC	1.0	<2.00e-1		ug/g
14	ICSAB		0	●ICP-QC	U	QC	1.0	<5.00e-1		ug/g
14	ICSAB		0	●ICP-QC	V	QC	0.5	4.93e-01	98.600	% Recovery
14	ICSAB		0	●ICP-QC	ZN	QC	1.0	9.70e-01	97.000	% Recovery
14	ICSAB		0	●ICP-QC	ZR	QC	1.0	<1.00e-2		ug/g
15	CCV		0	●ICP-QC	AG	QC	5.0	4.85e+00	97.000	% Recovery
15	CCV		0	●ICP-QC	AL	QC	5.0	4.90e+00	98.000	% Recovery
15	CCV		0	●ICP-QC	AS	QC	5.0	5.04e+00	100.800	% Recovery
15	CCV		0	●ICP-QC	B	QC	5.0	5.13e+00	102.600	% Recovery
15	CCV		0	●ICP-QC	BA	QC	5.0	5.11e+00	102.200	% Recovery
15	CCV		0	●ICP-QC	BE	QC	5.0	5.23e+00	104.600	% Recovery
15	CCV		0	●ICP-QC	BI	QC	5.0	4.98e+00	99.600	% Recovery
15	CCV		0	●ICP-QC	CA	QC	5.0	5.11e+00	102.200	% Recovery
15	CCV		0	●ICP-QC	CD	QC	5.0	4.92e+00	98.400	% Recovery
15	CCV		0	●ICP-QC	CE	QC	5.0	5.08e+00	101.600	% Recovery
15	CCV		0	●ICP-QC	CO	QC	5.0	4.87e+00	97.400	% Recovery
15	CCV		0	●ICP-QC	CR	QC	5.0	4.86e+00	97.200	% Recovery
15	CCV		0	●ICP-QC	CU	QC	5.0	5.20e+00	104.000	% Recovery

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
15	CCV		0		●ICP-QC FE	QC	5.0	5.10e+00	102.000	% Recovery
15	CCV		0		●ICP-QC K	QC	5.0	5.05e+00	101.000	% Recovery
15	CCV		0		●ICP-QC LA	QC	5.0	5.10e+00	102.000	% Recovery
15	CCV		0		●ICP-QC LI	QC	5.0	5.14e+00	102.800	% Recovery
15	CCV		0		●ICP-QC MG	QC	5.0	4.74e+00	94.800	% Recovery
15	CCV		0		●ICP-QC MN	QC	5.0	4.93e+00	98.600	% Recovery
15	CCV		0		●ICP-QC MO	QC	5.0	4.84e+00	96.800	% Recovery
15	CCV		0		●ICP-QC NA	QC	5.0	5.13e+00	102.600	% Recovery
15	CCV		0		●ICP-QC ND	QC	5.0	5.49e+00	109.800	% Recovery
15	CCV		0		●ICP-QC NI	QC	5.0	4.91e+00	98.200	% Recovery
15	CCV		0		●ICP-QC P	QC	5.0	4.93e+00	98.600	% Recovery
15	CCV		0		●ICP-QC PB	QC	5.0	4.91e+00	98.200	% Recovery
15	CCV		0		●ICP-QC S	QC	5.0	4.78e+00	95.600	% Recovery
15	CCV		0		●ICP-QC SB	QC	5.0	4.77e+00	95.400	% Recovery
15	CCV		0		●ICP-QC SE	QC	5.0	5.18e+00	103.600	% Recovery
15	CCV		0		●ICP-QC SI	QC	5.0	4.66e+00	93.200	% Recovery
15	CCV		0		●ICP-QC SM	QC	5.0	5.26e+00	105.200	% Recovery
15	CCV		0		●ICP-QC SR	QC	5.0	5.07e+00	101.400	% Recovery
15	CCV		0		●ICP-QC TI	QC	5.0	4.83e+00	96.600	% Recovery
15	CCV		0		●ICP-QC TL	QC	5.0	4.80e+00	96.000	% Recovery
15	CCV		0		●ICP-QC U	QC	10.0	9.82e+00	98.200	% Recovery
15	CCV		0		●ICP-QC V	QC	5.0	5.05e+00	101.000	% Recovery
15	CCV		0		●ICP-QC ZN	QC	5.0	4.91e+00	98.200	% Recovery
15	CCV		0		●ICP-QC ZR	QC	5.0	5.03e+00	100.600	% Recovery
16	CCB		0		●ICP-QC AG	QC	1	<1.00e-2		ug/g
16	CCB		0		●ICP-QC AL	QC	1	<5.00e-2		ug/g
16	CCB		0		●ICP-QC AS	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC B	QC	1	<5.00e-2		ug/g
16	CCB		0		●ICP-QC BA	QC	1	<5.00e-2		ug/g
16	CCB		0		●ICP-QC BE	QC	1	<5.00e-3		ug/g
16	CCB		0		●ICP-QC BI	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC CA	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC CD	QC	1	<5.00e-3		ug/g
16	CCB		0		●ICP-QC CE	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC CO	QC	1	<2.00e-2		ug/g
16	CCB		0		●ICP-QC CR	QC	1	<1.00e-2		ug/g
16	CCB		0		●ICP-QC CU	QC	1	<1.00e-2		ug/g
16	CCB		0		●ICP-QC FE	QC	1	<5.00e-2		ug/g
16	CCB		0		●ICP-QC K	QC	1	<5.00e-1		ug/g
16	CCB		0		●ICP-QC LA	QC	1	<5.00e-2		ug/g
16	CCB		0		●ICP-QC LI	QC	1	<1.00e-2		ug/g
16	CCB		0		●ICP-QC MG	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC MN	QC	1	<1.00e-2		ug/g
16	CCB		0		●ICP-QC MO	QC	1	<5.00e-2		ug/g
16	CCB		0		●ICP-QC NA	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC ND	QC	1	<1.00e-1		ug/g
16	CCB		0		●ICP-QC NI	QC	1	<2.00e-2		ug/g
16	CCB		0		●ICP-QC P	QC	1	<2.00e-1		ug/g
16	CCB		0		●ICP-QC PB	QC	1	<1.00e-1		ug/g

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Completed Worklist Report for Worklist# 8114

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
16	CCB		0	●ICP-QC	S	QC	1	<1.00e-1		ug/g
16	CCB		0	●ICP-QC	SB	QC	1	<6.00e-2		ug/g
16	CCB		0	●ICP-QC	SE	QC	1	<1.00e-1		ug/g
16	CCB		0	●ICP-QC	SI	QC	1	<5.00e-2		ug/g
16	CCB		0	●ICP-QC	SM	QC	1	<1.00e-1		ug/g
16	CCB		0	●ICP-QC	SR	QC	1	<1.00e-2		ug/g
16	CCB		0	●ICP-QC	TI	QC	1	<1.00e-2		ug/g
16	CCB		0	●ICP-QC	TL	QC	1	<2.00e-1		ug/g
16	CCB		0	●ICP-QC	U	QC	1	<5.00e-1		ug/g
16	CCB		0	●ICP-QC	V	QC	1	<5.00e-2		ug/g
16	CCB		0	●ICP-QC	ZN	QC	1	<1.00e-2		ug/g
16	CCB		0	●ICP-QC	ZR	QC	1	<1.00e-2		ug/g

Final page for worklist# 8114

Analyst Signature Date

Analyst Signature Date

Saul M. Parry 5/1/96
Reviewer Signature Date

Units shown for QC (BLK/BKG) may not reflect the actual units.

Identity 1: ICV Identity 2: Quality Control 1:31 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.074	5.166	5.067	4.776	5.004	5.003	5.252	5.319
S.D.	0.010	0.011	0.018	0.003	0.009	0.006	0.016	0.015
% R.S.D.	0.196	0.205	0.347	0.067	0.182	0.119	0.295	0.289

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.000	4.970	5.130	5.098	5.160	4.940	5.417	9.995
S.D.	0.002	0.003	0.021	0.018	0.016	0.006	0.043	0.033
% R.S.D.	0.048	0.065	0.417	0.347	0.317	0.129	0.794	0.334

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.254	5.293	5.198	5.102	4.973	4.854	5.146	5.253
S.D.	0.013	0.015	0.014	0.133	0.058	0.002	0.006	0.014
% R.S.D.	0.253	0.284	0.272	2.599	1.159	0.046	0.114	0.260

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.012	5.300	4.891	4.970	4.945	4.980	5.158	5.071
S.D.	0.007	0.027	0.009	0.014	0.007	0.011	0.017	0.047
% R.S.D.	0.140	0.504	0.182	0.276	0.150	0.214	0.330	0.922

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.970	4.843	5.104	5.283	4.862
S.D.	0.004	0.022	0.008	0.010	0.002
% R.S.D.	0.088	0.455	0.161	0.192	0.040

[signature]
4-29-96
C-106 ACID. DIC.
S96T001546
S96T001544
.025-1-10-C, 5X
FILE # 960429A.DAT

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 875 TO 892.

Identity 1: ICB Identity 2: Quality Control 1:34 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.001	0.000	-0.003	0.007	0.003	-0.003	-0.000	-0.000
S.D.	0.001	0.000	0.007	0.001	0.002	0.002	0.000	0.000
% R.S.D.	68.004	57.282	231.613	13.947	51.056	57.635	30.078	43.301

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.000	-0.001	-0.002	0.000	-0.002	-0.002	0.072
S.D.	0.000	0.001	0.001	0.002	0.000	0.000	0.000	0.028
% R.S.D.	54.490	310.581	58.535	78.783	9.116	9.874	20.024	39.747

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.001	0.045	0.000	0.007	-0.004	0.000	-0.001	-0.007
S.D.	0.007	0.005	0.000	0.003	0.003	0.000	0.005	0.004
% R.S.D.	1421.845	12.254	1050.000	43.718	75.350	173.204	577.509	64.958

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	-0.030	0.001	-0.012	0.000	0.000	0.002	-0.214
S.D.	0.001	0.009	0.000	0.002	0.000	0.001	0.001	0.010
% R.S.D.	75.059	28.367	53.719	19.948	46.753	596.356	77.397	4.483

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	-0.010	-0.003	0.000	-0.002
S.D.	0.000	0.022	0.001	0.000	0.008
% R.S.D.	61.324	228.584	23.436	59.444	559.380

Identity 1: ICSA Identity 2: Quality Control 1:36 PM April 29, 1996

Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.000	0.002	-0.040	0.024	198.627	0.005	0.001	0.001
S.D.	0.001	0.000	0.012	0.011	0.260	0.000	0.000	0.000
% R.S.D.	261.576	3.409	28.891	44.059	0.131	0.154	31.391	50.403

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.005	0.004	-0.001	96.779	101.251	0.002	0.010	-0.001
S.D.	0.001	0.001	0.004	0.251	0.149	0.002	0.006	0.045
% R.S.D.	11.097	18.878	246.535	0.259	0.147	81.615	61.910	3676.310

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.001	0.029	0.003	0.039	0.064	95.051	0.067	202.104
S.D.	0.007	0.006	0.000	0.005	0.015	0.176	0.002	1.001
% R.S.D.	927.875	20.355	6.358	13.222	23.003	0.186	2.325	0.496

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.067	0.002	0.006	-0.000	-0.000	0.013	-0.207
S.D.	0.002	0.007	0.000	0.010	0.000	0.001	0.001	0.011
% R.S.D.	223.488	11.197	30.146	175.756	619.919	222.126	5.787	5.502

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.001	-0.002	-0.002	0.003	-0.045
S.D.	0.000	0.009	0.000	0.000	0.018
% R.S.D.	9.532	371.301	21.491	3.866	39.906

Identity 1: ICSAB Identity 2: Quality Control 1:39 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.001	0.002	-0.019	0.021	199.392	0.489	0.515	0.991
S.D.	0.001	0.000	0.008	0.004	0.580	0.000	0.001	0.009
% R.S.D.	47.074	7.178	40.992	20.132	0.291	0.002	0.181	0.866

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.987	0.973	0.001	97.490	101.352	0.494	-0.001	0.091
S.D.	0.002	0.005	0.001	0.060	0.176	0.005	0.010	0.035
% R.S.D.	0.244	0.495	105.922	0.062	0.173	0.937	1660.246	38.599

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.008	0.074	0.523	0.011	0.075	97.027	0.066	201.792
S.D.	0.011	0.010	0.001	0.008	0.019	0.197	0.002	1.625
% R.S.D.	136.492	13.967	0.204	68.437	26.121	0.203	3.289	0.805

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.002	0.018	1.006	0.970	0.001	0.992	0.015	-0.125
S.D.	0.001	0.013	0.002	0.006	0.000	0.003	0.001	0.012
% R.S.D.	58.041	71.895	0.167	0.628	41.400	0.272	5.827	9.911

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.497	-0.048	0.498	0.514	-0.014
S.D.	0.001	0.004	0.000	0.002	0.014
% R.S.D.	0.243	8.677	0.067	0.313	100.144

Identity 1: S96T001546_L Identity 2: .025ml-10ml-2ml-8ml 1:43 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2005.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

WHC-SD-WM-DP-183, REV. 0

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	386.765	0.090	-36.510	32.592	14.668	-2.246	1.872	-0.787
S.D.	0.883	0.206	4.380	4.845	13.392	3.448	0.630	0.832
% R.S.D.	0.228	229.129	11.996	14.867	91.298	153.512	33.639	105.699

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	8.556	17.367	-2.781	0.445	50.203	-2.569	12.082	1931.807
S.D.	0.588	2.994	4.197	4.202	2.322	1.654	10.195	97.517
% R.S.D.	6.876	17.241	150.908	943.437	4.625	64.406	84.383	5.048

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-13.059	47.395	-0.149	293.748	2528.993	9.100	6.093	113880.203
S.D.	29.719	17.040	0.278	11.025	17.408	2.408	8.106	119.446
% R.S.D.	227.572	35.954	186.810	3.753	0.688	26.467	133.045	0.105

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	26.088	-46.978	2.507	19.477	1.625	0.054	5.894	118.842
S.D.	2.301	16.184	1.178	24.444	0.284	1.099	2.614	49.771
% R.S.D.	8.821	34.451	47.002	125.502	17.512	2038.552	44.351	41.880

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	1.181	-42.985	-9.897	0.250	-60.166
S.D.	0.543	22.583	1.952	0.533	56.651
% R.S.D.	45.978	52.537	19.726	213.181	94.159

Identity 1: S96T001546 Identity 2: .025ml-10ml 1:46 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	381.120	0.162	-25.394	14.164	12.663	2.571	2.184	0.236
S.D.	0.643	0.041	3.039	0.977	10.134	0.000	0.212	0.058
% R.S.D.	0.169	25.459	11.968	6.897	80.028	0.002	9.691	24.740

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.323	16.426	-3.961	9.270	19.011	-0.472	3.005	1758.859
S.D.	0.064	0.524	1.459	3.027	4.285	0.534	0.360	0.424
% R.S.D.	1.485	3.190	36.834	32.657	22.540	113.216	11.978	0.024

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	3.021	9.838	0.264	291.594	2424.230	7.924	1.520	109593.317
S.D.	1.458	0.523	0.080	11.025	11.015	4.019	1.904	545.558
% R.S.D.	48.262	5.319	30.218	3.781	0.454	50.718	125.233	0.498

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	21.831	-13.535	2.399	23.325	0.054	0.492	9.625	507.557
S.D.	0.537	0.516	0.163	0.774	0.078	0.360	0.434	2.760
% R.S.D.	2.460	3.809	6.790	3.320	144.709	73.258	4.514	0.544

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.901	-7.802	-4.937	0.076	-12.611
S.D.	0.059	4.137	0.083	0.053	6.885
% R.S.D.	6.602	53.021	1.681	69.116	54.599

Identity 1: S96T001546_D Identity 2: .025ml-10ml 1:51 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	376.971	0.126	-22.200	16.639	3.187	0.969	1.844	-0.011
S.D.	0.582	0.016	1.059	0.879	2.837	0.693	0.056	0.039
% R.S.D.	0.154	12.372	4.771	5.282	89.037	71.529	3.040	346.281

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	1.057	17.051	-2.660	3.082	11.648	-0.907	0.799	1790.260
S.D.	0.264	0.561	0.845	1.310	0.028	0.706	4.630	9.490
% R.S.D.	25.008	3.289	31.756	42.496	0.242	77.826	579.284	0.530

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-7.458	25.930	0.140	298.682	2345.975	3.285	-1.143	105749.380
S.D.	0.576	1.218	0.019	15.149	19.961	0.077	0.996	298.209
% R.S.D.	7.724	4.696	13.887	5.072	0.851	2.341	87.064	0.282

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	21.755	-17.874	2.468	22.639	0.457	-0.014	9.690	495.855
S.D.	0.684	3.223	0.098	3.565	0.172	0.191	0.586	2.195
% R.S.D.	3.142	18.030	3.964	15.745	37.690	1335.151	6.048	0.443

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.794	-3.013	-5.267	0.171	-10.604
S.D.	0.125	2.803	0.161	0.104	4.328
% R.S.D.	15.786	93.012	3.055	60.752	40.812

Identity 1: S96T001546_A Identity 2: .025ml-2ml-8ml 1:54 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	756.455	409.851	359.183	381.408	385.523	381.226	409.577	400.966
S.D.	1.286	0.687	2.290	0.796	3.032	1.198	1.011	1.448
% R.S.D.	0.170	0.168	0.638	0.209	0.786	0.314	0.247	0.361

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	377.566	394.915	406.773	400.936	418.116	380.464	439.381	2471.443
S.D.	0.194	2.431	1.389	2.326	0.881	2.483	0.734	7.552
% R.S.D.	0.051	0.616	0.342	0.580	0.211	0.653	0.167	0.306

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	404.304	436.782	412.354	685.388	2532.012	369.342	413.653	100964.541
S.D.	2.203	2.774	0.826	3.200	18.359	0.431	2.546	354.405
% R.S.D.	0.545	0.635	0.200	0.467	0.725	0.117	0.616	0.351

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	404.554	450.003	361.356	385.595	386.703	380.086	405.384	832.975
S.D.	0.643	7.247	0.681	2.324	0.251	0.636	0.920	3.956
% R.S.D.	0.159	1.611	0.188	0.603	0.065	0.167	0.227	0.475

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	384.768	367.358	393.808	411.474	363.793
S.D.	0.708	6.102	0.943	0.450	7.115
% R.S.D.	0.184	1.661	0.239	0.109	1.956

Identity 1: CCV Identity 2: Quality Control 1:58 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.038	5.081	5.025	4.711	4.932	4.921	5.207	5.197
S.D.	0.014	0.019	0.004	0.005	0.013	0.019	0.019	0.019
% R.S.D.	0.269	0.371	0.079	0.106	0.260	0.391	0.356	0.372

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.967	4.945	5.103	5.118	5.122	4.905	5.471	9.882
S.D.	0.004	0.011	0.024	0.033	0.016	0.014	0.008	0.013
% R.S.D.	0.078	0.215	0.464	0.651	0.314	0.289	0.146	0.132

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.108	5.248	5.118	5.032	4.856	4.788	5.054	5.185
S.D.	0.004	0.021	0.020	0.026	0.013	0.009	0.016	0.036
% R.S.D.	0.073	0.406	0.392	0.518	0.269	0.187	0.312	0.700

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.899	5.234	4.890	4.955	4.860	4.955	5.153	5.156
S.D.	0.014	0.026	0.007	0.014	0.016	0.011	0.010	0.010
% R.S.D.	0.291	0.492	0.134	0.278	0.323	0.217	0.203	0.191

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.957	4.804	5.076	5.252	4.838
S.D.	0.013	0.021	0.013	0.017	0.001
% R.S.D.	0.256	0.445	0.251	0.325	0.022

Identity 1: CCB Identity 2: Quality Control 2:01 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	-0.000	0.002	0.013	-0.004	-0.007	-0.000	-0.000
S.D.	0.001	0.000	0.011	0.001	0.002	0.002	0.000	0.000
% R.S.D.	57.815	69.389	698.196	10.726	58.267	24.808	353.217	88.610

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.001	0.003	-0.005	-0.005	0.005	-0.002	-0.004	0.068
S.D.	0.000	0.001	0.001	0.001	0.000	0.001	0.010	0.063
% R.S.D.	22.869	48.787	26.859	25.473	1.567	58.062	248.316	92.101

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.021	0.043	-0.001	0.006	0.009	-0.000	0.003	-0.003
S.D.	0.014	0.012	0.000	0.007	0.002	0.000	0.005	0.006
% R.S.D.	64.633	28.254	43.153	118.538	24.480	86.603	174.418	231.000

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.004	-0.009	-0.000	-0.006	0.001	-0.001	0.002	-0.164
S.D.	0.001	0.006	0.001	0.013	0.000	0.001	0.001	0.007
% R.S.D.	26.249	65.963	190.528	224.702	54.398	53.799	45.915	4.409

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	-0.019	-0.004	0.000	-0.055
S.D.	0.000	0.028	0.001	0.000	0.023
% R.S.D.	199.727	143.911	35.173	5.076	42.596

Identity 1: S96T001544_L Identity 2: .025ml-10ml-2ml-8ml 2:04 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 2005.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	370.029	0.269	-50.153	11.474	24.856	-6.175	3.068	0.675
S.D.	0.428	0.155	25.091	4.720	9.758	3.455	1.447	0.446
% R.S.D.	0.116	57.735	50.029	41.138	39.257	55.953	47.169	66.146

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	16.124	11.636	-15.883	19.218	41.600	-4.759	14.074	1415.440
S.D.	0.628	4.561	1.610	3.209	0.141	2.456	9.430	39.351
% R.S.D.	3.897	39.195	10.139	16.700	0.339	51.602	67.005	2.780

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	37.939	28.361	0.808	337.061	2436.917	4.328	-14.475	117686.510
S.D.	18.290	10.615	0.319	11.471	21.787	0.192	9.854	919.833
% R.S.D.	48.209	37.427	39.474	3.403	0.894	4.441	68.075	0.782

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	24.110	-26.256	6.651	-5.020	-1.505	-0.442	7.054	206.603
S.D.	2.139	26.393	1.168	23.207	0.926	2.626	1.270	24.733
% R.S.D.	8.873	100.520	17.564	462.309	61.562	594.050	18.000	11.971

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	2.338	-46.064	-6.717	-0.272	-47.906
S.D.	0.540	12.882	0.940	0.265	23.622
% R.S.D.	23.120	27.966	13.993	97.604	49.308

Identity 1: S96T001544 Identity 2: .025ml-10ml 2:08 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	371.514	0.197	-25.917	12.908	4.280	1.400	2.292	0.236
S.D.	0.601	0.047	5.302	0.570	2.266	1.200	0.057	0.178
% R.S.D.	0.162	23.619	20.457	4.415	52.948	85.702	2.469	75.594

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.246	14.799	-2.959	14.945	23.356	-2.001	3.874	1540.785
S.D.	0.188	0.547	0.008	0.444	0.102	0.479	3.225	16.542
% R.S.D.	3.576	3.698	0.259	2.972	0.436	23.965	83.235	1.074

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	10.766	6.698	0.510	351.862	2367.422	4.239	0.305	110475.414
S.D.	4.509	4.526	0.141	7.315	3.306	0.000	2.254	420.150
% R.S.D.	41.885	67.576	27.538	2.079	0.140	0.000	739.998	0.380

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	22.283	-13.318	3.602	10.570	0.500	-0.183	9.728	592.393
S.D.	0.376	5.096	0.294	1.200	0.072	0.145	0.300	9.373
% R.S.D.	1.689	38.262	8.160	11.357	14.447	79.315	3.079	1.582

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	2.592	-7.632	-4.489	0.139	-8.695
S.D.	0.108	6.029	0.265	0.054	8.903
% R.S.D.	4.179	78.993	5.900	39.002	102.389

Identity 1: S96T001544_D Identity 2: .025ml-10ml 2:11 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	378.061	0.054	-26.376	13.910	-1.491	-0.211	1.756	-0.247
S.D.	0.860	0.056	2.168	1.124	2.212	0.690	0.212	0.203
% R.S.D.	0.228	104.083	8.221	8.079	148.288	327.826	12.098	82.196

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.982	15.585	-2.913	15.216	23.017	-0.569	-4.875	1639.885
S.D.	0.143	0.339	0.557	0.679	0.098	0.574	2.198	16.634
% R.S.D.	2.384	2.174	19.109	4.463	0.425	100.902	45.088	1.014

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-10.294	16.090	0.085	371.780	2281.634	4.173	3.275	110208.886
S.D.	5.100	3.643	0.104	18.276	31.039	0.067	0.263	279.333
% R.S.D.	49.547	22.640	122.780	4.916	1.360	1.596	8.045	0.253

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	21.642	-9.276	3.010	14.316	0.898	0.328	9.372	566.066
S.D.	0.577	1.393	0.457	2.587	0.143	0.335	0.293	9.373
% R.S.D.	2.667	15.020	15.173	18.070	15.932	102.060	3.129	1.656

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	2.762	-0.064	-5.586	0.212	-12.816
S.D.	0.065	8.455	0.293	0.055	6.240
% R.S.D.	2.345	13126.575	5.250	25.719	48.687

Identity 1: S96T001544_A Identity 2: .025ml-2ml-8ml 2:15 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 401.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	777.493	406.099	356.674	376.986	381.975	374.442	409.612	394.995
S.D.	1.363	0.921	7.074	1.724	4.011	0.693	0.611	0.283
% R.S.D.	0.175	0.227	1.983	0.457	1.050	0.185	0.149	0.072

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	376.558	389.013	402.884	414.022	431.327	374.762	450.732	2405.716
S.D.	0.664	2.521	3.033	2.587	0.829	0.295	3.694	12.048
% R.S.D.	0.176	0.648	0.753	0.625	0.192	0.079	0.820	0.501

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	409.219	431.116	408.981	761.241	2647.386	365.832	417.697	111095.014
S.D.	1.858	2.137	0.709	24.737	34.445	0.877	1.917	176.112
% R.S.D.	0.454	0.496	0.173	3.250	1.301	0.240	0.459	0.159

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	399.280	455.940	362.232	387.224	382.839	376.711	402.361	953.277
S.D.	0.339	1.457	0.164	10.372	0.628	0.676	1.285	3.853
% R.S.D.	0.085	0.320	0.045	2.679	0.164	0.179	0.319	0.404

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	383.785	368.475	390.820	408.584	359.769
S.D.	1.113	2.333	1.330	0.362	6.346
% R.S.D.	0.290	0.633	0.340	0.089	1.764

Identity 1: ICSA Identity 2: Quality Control 2:18 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.002	0.002	-0.027	0.026	196.828	0.005	0.001	0.001
S.D.	0.000	0.000	0.012	0.001	0.481	0.003	0.001	0.000
% R.S.D.	19.123	1.767	44.568	4.291	0.244	57.222	48.048	35.932

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	-0.004	0.005	0.002	97.470	100.644	-0.001	0.015	0.039
S.D.	0.000	0.000	0.001	0.290	0.242	0.001	0.002	0.029
% R.S.D.	9.292	5.407	33.216	0.298	0.241	102.437	10.964	76.535

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.012	0.037	0.003	0.009	0.087	95.813	0.074	197.190
S.D.	0.006	0.005	0.000	0.004	0.010	0.233	0.006	0.195
% R.S.D.	46.788	14.844	4.698	48.395	11.382	0.244	8.647	0.099

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.002	-0.003	0.001	-0.010	0.001	-0.001	0.013	-0.044
S.D.	0.001	0.006	0.000	0.003	0.000	0.001	0.001	0.007
% R.S.D.	33.558	185.478	46.019	32.990	57.904	84.442	7.804	16.535

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.001	0.005	-0.002	0.003	0.007
S.D.	0.001	0.026	0.001	0.000	0.006
% R.S.D.	40.247	488.813	35.931	4.562	87.425

Identity 1: ICSAB Identity 2: Quality Control 2:21 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.002	0.002	-0.019	0.024	198.036	0.476	0.514	0.977
S.D.	0.000	0.000	0.011	0.004	0.342	0.002	0.000	0.005
% R.S.D.	16.468	5.455	58.042	14.566	0.173	0.362	0.027	0.560

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.970	0.972	0.003	97.606	101.036	0.492	0.004	0.086
S.D.	0.003	0.002	0.001	0.142	0.163	0.004	0.013	0.029
% R.S.D.	0.300	0.188	49.398	0.145	0.161	0.823	327.282	33.712

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.034	0.078	0.522	0.028	0.098	95.787	0.065	199.886
S.D.	0.009	0.005	0.000	0.011	0.009	0.171	0.002	0.809
% R.S.D.	25.565	6.568	0.039	40.101	9.225	0.179	3.046	0.405

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	0.038	0.998	0.986	0.001	0.983	0.014	-0.117
S.D.	0.001	0.022	0.001	0.005	0.000	0.001	0.001	0.020
% R.S.D.	48.995	57.347	0.099	0.478	34.185	0.110	8.611	16.828

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.496	-0.008	0.493	0.511	-0.051
S.D.	0.001	0.014	0.001	0.001	0.014
% R.S.D.	0.252	162.244	0.162	0.270	28.407

Identity 1: CCV Identity 2: Quality Control 2:25 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	5.029	5.073	4.983	4.665	4.897	4.873	5.198	5.136
S.D.	0.009	0.015	0.019	0.005	0.002	0.014	0.019	0.047
% R.S.D.	0.172	0.300	0.391	0.098	0.047	0.283	0.365	0.921

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.906	4.910	5.099	5.103	5.112	4.857	5.486	9.816
S.D.	0.001	0.020	0.003	0.022	0.012	0.011	0.014	0.021
% R.S.D.	0.022	0.416	0.062	0.436	0.237	0.234	0.260	0.218

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.076	5.260	5.114	4.934	4.779	4.744	5.035	5.132
S.D.	0.005	0.007	0.018	0.090	0.029	0.005	0.017	0.038
% R.S.D.	0.099	0.129	0.348	1.831	0.598	0.111	0.331	0.731

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Tl (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.842	5.180	4.849	4.911	4.833	4.924	5.129	5.054
S.D.	0.012	0.022	0.003	0.015	0.010	0.009	0.013	0.022
% R.S.D.	0.248	0.421	0.054	0.315	0.198	0.179	0.262	0.429

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.925	4.775	5.047	5.229	4.797
S.D.	0.009	0.016	0.007	0.010	0.020
% R.S.D.	0.173	0.345	0.141	0.184	0.427

Identity 1: CCB Identity 2: Quality Control 2:29 PM April 29, 1996
Task name : OPTIMA
Sample Weight : 1.0000 Solution Volume : 1.00
On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.004	0.001	0.011	0.014	0.003	0.003	0.000	0.000
S.D.	0.002	0.001	0.005	0.005	0.011	0.002	0.001	0.001
% R.S.D.	52.109	101.035	44.533	33.100	399.505	57.695	1472.540	399.500

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.002	0.004	0.004	0.004	0.010	-0.002	-0.014	0.128
S.D.	0.000	0.003	0.004	0.004	0.003	0.001	0.003	0.083
% R.S.D.	27.794	67.570	113.755	109.382	33.084	84.165	24.429	65.152

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.023	0.029	0.000	0.007	0.010	0.005	-0.005	0.025
S.D.	0.021	0.017	0.001	0.012	0.002	0.003	0.005	0.014
% R.S.D.	91.088	59.137	225.167	167.295	24.141	67.698	110.797	56.974

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.004	-0.036	0.001	0.002	0.002	-0.001	0.005	-0.087
S.D.	0.000	0.003	0.002	0.007	0.001	0.000	0.001	0.014
% R.S.D.	14.049	9.200	270.353	422.490	47.949	37.868	23.378	15.894

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.001	-0.017	-0.003	0.001	-0.007
S.D.	0.001	0.004	0.002	0.001	0.018
% R.S.D.	56.787	26.311	68.815	61.122	247.002

LABCORE Data Entry Template for Worklist# 6208

Analyst: DBS **Instrument:** TIC01 _____ **Book #** 17N12-F

Method: LA-622-102 Rev/Mod C-0

SPK # 17N12-F

Worklist Comment: C-106 TIC-01. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TIC-01	LIQUID	1	<5.00e+0	N/A	ug/mL
		2	STD				TIC-01	LIQUID	~~6.02~~ 6.01e+2	6.19e+2	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000538	0		TIC-01	LIQUID	N/A	2.00e+4	1.05e+2	ug/mL
96000082	C-106 GRAB	4	DUP	S96T000538	0		TIC-01	LIQUID	2.00e+4	2.02e+4	N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T000538	0		TIC-01	LIQUID	100.0	81.9	N/A	ug/mL

Final page for worklist # 6208

D S Suffern 3-9-96
Analyst Signature **Date**

Linda Conlin 3/11/96
Analyst Signature **Date**

Reviewed RW Schroeder 3/11/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			BLK
	Sample Volume in mL	(SS)	0.200
BLK	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6208	µg of Carbon in Sample	(C1)	2.4
	µg of Carbon in Blank	(C2)	2.7
TIC-01			
LIQUID	g of Carbon/L =	<	5.00E-03
BLK			
TIC01			
D GRIFFIN			
03/09/96			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	< 5.00E+00	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	Tenila Conlin	Date:	03/11/96
Approved by:	RW Edwards	Date:	3/11/96

Form 622102_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			STANDARD
	Sample Volume in mL	(SS)	0.200
STANDARD	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6208	µg of Carbon in Sample	(C1)	126.5
	µg of Carbon in Blank	(C2)	2.7
TIC-01			
LIQUID	g of Carbon/L	=	6.19E-01
17N12F	g of Carbon/L =	$\frac{(C1-C2) * DF * DDF}{SS * 1000}$	
TIC01	µg of Carbon/mL =	g of Carbon/L * 1000000 µg/g / 1000 m	
D GRIFFIN			
03/09/96	Detection Level (µg/mL) =	$\frac{1 \mu g C * DF * DDF}{SS}$	

µg Carbon/mL =	6.19E+02	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	Linda Ponte	Date:	03/11/96
Approved by:	RW Schwecke	Date:	3/11/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	Dilution Factor	(DF)	21.000
	Digest Dilution Factor	(DDF)	1.000
6208	µg of Carbon in Sample	(C1)	193.1
	µg of Carbon in Blank	(C2)	2.7
TIC-01			
LIQUID	g of Carbon/L	=	2.00E+01
S96T000538			
TIC01			
D GRIFFIN			
03/09/96			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

µg Carbon/mL =	2.00E+04	DETECTION LEVEL in µg/mL
		1.05E+02

Data Entry by:	Frank Cook	Date:	03/11/96
Approved by:	Ray Schroeder	Date:	3/11/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	Dilution Factor	(DF)	21.000
	Digest Dilution Factor	(DDF)	1.000
6208	µg of Carbon in Sample	(C1)	195.4
	µg of Carbon in Blank	(C2)	2.7
TIC-01			
LIQUID	g of Carbon/L	=	2.02E+01
S96T000538 DUP	g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$		
TIC01	µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m		
D GRIFFIN			
03/09/96	Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$		

µg Carbon/mL =	2.02E+04	DETECTION LEVEL in µg/mL
		1.05E+02

Data Entry by:	Lynn Conl	Date:	03/11/96
Approved by:	RW Schroeder	Date:	3/11/96

TIC LA 622-102

~~TOC: LA-344-105~~

SPIKED SAMPLE

SPIKE

SPIKE	>>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
	Sample Volume in mL	0.100	Sample Size in mL (SS)	0.200
	~~H2SO4~~ Volume in mL H2O	2.000	Spike Volume in mL	0.200
6208	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
	µg of Carbon in Sample	193.1	Volume Injected in mL	0.200
TIC-01	µg of Carbon in Blank	2.7	Sample Pre-Spike Dil. Factor (PDF)	21
			Spike Value (µg/ml)	602
Liquid			µg C in Sample + Spike	147.1
			µg C in Blank	2.7
S96T000538				
TIC01				
DGG				
03/09/96				

PERCENT SPIKE RE = $\frac{\text{µg Carbon Recovered from Spike} * 100}{\text{µg Carbon in Spike}}$

WHERE : µg Carbon Recovered from Spike =
[(µgC in sample + spike - µgC in blank) * (Spike Correction Factor)]
- [(µgC sample - µgC blank) * (Sample Correction Factor) * (Sample Size Correction Factor) * (PDF)]

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : µg Carbon in Spike = Spike Value (µg/mL) * Spike Volume (mL)

Percent Spike Recovery 81.7%

Data Entry by:	RWS	Date: 11-Mar-96
Approved by:	RW Schroeder	Date: 3/11/96

E

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/09/96 Time: 01:08:50

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.30	66.67
3	1.51	0.50	40.00
4	2.00	0.70	28.57
5	2.50	1.00	30.00
6	3.01	1.20	16.67
7	3.51	1.40	14.29
8	4.01	1.60	12.50
9	4.50	1.80	11.11
10	5.00	2.00	10.00
11	5.50	2.20	9.09
12	6.00	2.30	4.35
13	6.50	2.50	8.00
14	7.00	2.70	7.41

BLANK VALUE = 2.7 micrograms carbon
BLANK FACTOR = 2.7 / 7.002998 = +3.9E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 899 TO 904.

Sample Run By: Robert W Schroeder for DG Griffin
DG GRIFFIN 00000
6/11/96

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 03/09/96 Time: 01:19:58

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .3855492 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.30	33.33
3	1.51	0.50	40.00
4	2.01	0.80	37.50
5	2.51	1.00	20.00
6	3.01	1.30	23.08
7	3.51	1.40	7.14
8	4.01	1.60	12.50
9	4.51	1.70	5.88
10	5.01	1.90	10.53
11	5.51	2.20	13.64
12	6.01	2.20	0.00
13	6.51	2.30	4.35
14	7.01	2.40	4.17

BLANK VALUE = 2.7 micrograms carbon
BLANK FACTOR = 2.7 / 7.002998 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(2.4 - 2.701027)(1)/(200) = < 5.00 E-3 g/L Carbon
(2.4 - 2.701027)(1)/(200)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: LMCS STD. Date: 03/09/96 Time: 01:38:21

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .3855492 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.00	20.40	99.51
3	1.50	58.70	65.25
4	2.00	90.30	34.99
5	2.50	108.40	16.70
6	3.00	118.10	8.21
7	3.50	122.30	3.43
8	4.00	124.10	1.45
9	4.50	125.00	0.72
10	5.00	125.60	0.48
11	5.50	125.80	0.16
12	6.00	126.10	0.24
13	6.50	126.30	0.16
14	7.00	126.50	0.16

BLANK VALUE = 2.7 micrograms carbon
BLANK FACTOR = 2.7 / 7.002998 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(126.5 - 2.700324)(1)/(200) = +6.190E-01 g/L Carbon
(126.5 - 2.700324)(1)/(200)(12) = +5.158E-02 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538 Date: 03/09/96 Time: 02:07:57

Sample Size = 200 uL
Dil Factor = 21
Blank ID # = BLK
Blank Value = .3855492 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	54.50	98.17
3	1.51	119.00	54.20
4	2.01	156.80	24.11
5	2.51	177.10	11.46
6	3.01	185.60	4.58
7	3.51	189.00	1.80
8	4.01	190.50	0.79
9	4.51	191.30	0.42
10	5.01	191.70	0.21
11	5.51	192.10	0.21
12	6.01	192.50	0.21
13	6.50	192.80	0.16
14	7.00	193.10	0.16

BLANK VALUE = 2.7 micrograms carbon
BLANK FACTOR = 2.7 / 7.002998 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(193.1 - 2.700706)(21)/(200) = +1.999E+01 g/L Carbon
(193.1 - 2.700706)(21)/(200)(12) = +1.666E+00 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000
902

.100 – 2.0 H_2O – .200 Inject

DF 21

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538DUP Date: 03/09/96 Time: 02:17:13

Sample Size = 200 uL
Dil Factor = 21
Blank ID # = BLK
Blank Value = .3855492 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	27.80	99.28
3	1.51	89.90	69.08
4	2.01	137.10	34.43
5	2.51	165.20	17.01
6	3.01	180.80	8.63
7	3.51	188.10	3.88
8	4.00	191.30	1.67
9	4.50	193.00	0.88
10	5.00	193.90	0.46
11	5.51	194.40	0.26
12	6.01	194.80	0.21
13	6.50	195.10	0.15
14	7.00	195.40	0.15

BLANK VALUE = 2.7 micrograms carbon
BLANK FACTOR = 2.7 / 7.002998 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(195.4 - 2.700709)(21)/(200) = +2.023E+01 g/L Carbon
(195.4 - 2.700709)(21)/(200)(12) = +1.686E+00 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

.100 – 2.0 H_2O – .200 inject DF 21

W

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538SPK Date: 03/09/96 Time: 02:27:18

Sample Size = 200 uL
Dil Factor = 42
Blank ID # = BLK
Blank Value = .3855492 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	48.30	98.14
3	1.51	96.00	49.69
4	2.01	123.90	22.52
5	2.51	136.20	9.03
6	3.01	141.60	3.81
7	3.51	143.70	1.46
8	4.00	144.90	0.83
9	4.50	145.50	0.41
10	5.00	145.90	0.27
11	5.50	146.30	0.27
12	6.00	146.60	0.20
13	6.50	146.90	0.20
14	7.00	147.10	0.14

BLANK VALUE = 2.7 micrograms carbon
BLANK FACTOR = 2.7 / 7.002998 = +3.9E-01 ug/min Carbon

SAMPLE RESULTS:
(147.1 - 2.700709)(42)/(200) = +3.032E+01 g/L Carbon
(147.1 - 2.700709)(42)/(200)(12) = +2.527E+00 Molar Carbon

Sample Run By: DG GRIFFIN 00000

.100 – 10
↓
.200 of org. dilution – .200 spk – .200 inject

LABCORE Data Entry Template for Worklist# 6316

Analyst: DBB **Instrument:** TIC01 _____ **Book #** 17N12-F

Method: LA-622-102 Rev/Mod C-0 SPK # 17N12-F

Worklist Comment: C-106 TIC. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK				TIC-01	LIQUID	1	45.00	N/A	ug/mL
		2 STD				TIC-01	LIQUID	~~6.02~~ 601 +2	~~620~~ 620 +2	RJ 3-11-96 N/A	ug/mL
96000174	C-106 GRAB	3 SAMPLE	S96T001023	0		TIC-01	LIQUID	N/A	2.43 +d	1.05 +2	ug/mL
96000174	C-106 GRAB	4 DUP	S96T001023	0		TIC-01	LIQUID	2.43 +d	2.46 +d	N/A	ug/mL
96000174	C-106 GRAB	5 SPK	S96T001023	0		TIC-01	LIQUID	100	99.0	N/A	ug/mL

Final page for worklist # 6316

DB Griffin 3-9-96
Analyst Signature **Date**

RJ Jones 3-11-96
Analyst Signature **Date**

Reviewed RW Schroeder 3/11/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			BLANK
	Sample Volume in mL	(SS)	0.200
BLANK	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6316	µg of Carbon in Sample	(C1)	4
	µg of Carbon in Blank	(C2)	3.8
TIC-01			
LIQUID	g of Carbon/L	= <	5.00E-03

BLNK

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

DGG

03/09/96

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

02:30 AM

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	< 5.00E+00	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:		Date:	03/11/96
Approved by:		Date:	3/11/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			STANDARD
	Sample Volume in mL	(SS)	0.200
STANDARD	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6316	µg of Carbon in Sample	(C1)	127.9
	µg of Carbon in Blank	(C2)	4
TIC-01			
LIQUID	g of Carbon/L	=	6.20E-01
17N12F	g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$		
	µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m		
DGG			
03/09/96	Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$		
02:30 AM			

µg Carbon/mL =	6.20E+02	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	RC	Date:	03/11/96
Approved by:	RW Schroeder	Date:	3/11/96

TIC : LA-622-102 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	Dilution Factor	(DF)	21.000
	Digest Dilution Factor	(DDF)	1.000
6316	µg of Carbon in Sample	(C1)	235.8
	µg of Carbon in Blank	(C2)	4
TIC-01			
LIQUID	g of Carbon/L	=	2.43E+01
S96T001023			
DGG			
03/09/96			
02:30 AM			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{SS}$

µg Carbon/mL =	2.43E+04	DETECTION LEVEL in µg/mL
		1.05E+02

Data Entry by:	RJ	Date:	03/11/96
Approved by:	R.W. Schwab	Date:	3/11/96

Form 622102_C Rev. 1.1

TIC : LA-622-102 (C-0) LIQUIDS

			DUPLICATE
	Sample Volume in mL	(SS)	0.200
DUPLICATE	Dilution Factor	(DF)	21.000
	Digest Dilution Factor	(DDF)	1.000
6316	µg of Carbon in Sample	(C1)	237.9
	µg of Carbon in Blank	(C2)	4
TIC-01			
LIQUID	g of Carbon/L	=	2.46E+01
S96T001023DUP			
DGG			
03/09/96			
02:30 AM			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

µg Carbon/mL =	2.46E+04	DETECTION LEVEL in µg/mL
		1.05E+02

Data Entry by:	RJ	Date:	03/11/96
Approved by:	RW Schulder	Date:	3/11/96

Form 622102_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

TIC LA 622-102

RWS 3/11/96

~~TOC: LA-344-105~~

SPIKED SAMPLE

SPIKE

	>>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	0.100	Sample Size in mL (SS)	0.200
	~~H2SO4~~ Volume in mL H_2O	2.000	Spike Volume in mL	0.200
6316	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
	µg of Carbon in Sample	235.8	Volume Injected in mL	0.200
TIC-01	µg of Carbon in Blank	4	Sample Pre-Spike Dil. Factor (PDF)	21
			Spike Value (µg/ml)	602
Liquid			µg C in Sample + Spike	179.5
			µg C in Blank	4
S96T001023				
DGG				
03/09/96				
02:30 AM				

PERCENT SPIKE RE = $\frac{\text{µg Carbon Recovered from Spike} * 100}{\text{µg Carbon in Spike}}$

WHERE : µg Carbon Recovered from Spike =

[(µgC in sample + spike - µgC in blank) * (Spike Correction Factor)]

- [(µgC sample - µgC blank) * (Sample Correction Factor) * (Sample Size Correction Factor) * (PDF)]

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : µg Carbon in Spike = Spike Value (µg/mL) * Spike Volume (mL)

Percent Spike Recovery 99.0%

Data Entry by:	RWS	Date:	11-Mar-96
Approved by:	Ru Schroeder	Date:	3/11/96

Form X Rev. 1.1

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/09/96 Time: 02:37:59

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.60	66.67
3	1.50	0.90	33.33
4	2.00	1.30	30.77
5	2.50	1.60	18.75
6	3.00	1.90	15.79
7	3.50	2.20	13.64
8	4.00	2.50	12.00
9	4.50	2.70	7.41
10	5.00	3.00	10.00
11	5.50	3.30	9.09
12	6.00	3.60	8.33
13	6.50	3.80	5.26
14	7.00	4.00	5.00

BLANK VALUE = 4 micrograms carbon
BLANK FACTOR = 4 / 7.003845 = +5.7E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 911 TO 917.

for DG Griffin

Sample Run By: Robert W Schroeder For 6/11/96
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 03/09/96 Time: 02:46:03

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .5711148 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.50	60.00
3	1.51	0.80	37.50
4	2.01	1.10	27.27
5	2.51	1.50	26.67
6	3.01	1.70	11.76
7	3.51	2.00	15.00
8	4.01	2.20	9.09
9	4.51	2.50	12.00
10	5.01	2.80	10.71
11	5.51	3.00	6.67
12	6.01	3.30	9.09
13	6.50	3.50	5.71
14	7.00	3.80	7.89

BLANK VALUE = 4 micrograms carbon
BLANK FACTOR = 4 / 7.003845 = +5.7E-01 ug/min Carbon

SAMPLE RESULTS:
(3.8 - 4.000557)(1)/(200) = < 5.00 E-3 g/L Carbon
(3.8 - 4.000557)(1)/(200)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: LMCS STD. Date: 03/09/96 Time: 02:54:34

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .5711148 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	26.40	98.11
3	1.51	63.40	58.36
4	2.01	91.30	30.56
5	2.51	108.20	15.62
6	3.01	117.40	7.84
7	3.51	121.90	3.69
8	4.01	124.30	1.93
9	4.51	125.50	0.96
10	5.01	126.30	0.63
11	5.51	126.80	0.39
12	6.01	127.20	0.31
13	6.51	127.60	0.31
14	7.01	127.90	0.23

BLANK VALUE = 4 micrograms carbon
BLANK FACTOR = 4 / 7.003845 = +5.7E-01 ug/min Carbon

SAMPLE RESULTS:
(127.9 - 4.001046)(1)/(200) = +6.195E-01 g/L Carbon
(127.9 - 4.001046)(1)/(200)(12) = +5.162E-02 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001023 Date: 03/09/96 Time: 03:04:21

Sample Size = 200 uL
Dil Factor = 21
Blank ID # = BLK
Blank Value = .5711148 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.90	0.00
2	1.01	68.60	97.23
3	1.51	135.10	49.22
4	2.01	179.30	24.65
5	2.51	205.90	12.92
6	3.01	220.50	6.62
7	3.51	227.70	3.16
8	4.00	231.10	1.47
9	4.50	232.90	0.77
10	5.00	233.80	0.38
11	5.50	234.50	0.30
12	6.00	235.00	0.21
13	6.50	235.40	0.17
14	7.00	235.80	0.17

.100 – 2.0 H_2O – .200 Inject

BLANK VALUE = 4 micrograms carbon
BLANK FACTOR = 4 / 7.003845 = +5.7E-01 ug/min Carbon

SAMPLE RESULTS:
(235.8 - 3.999512)(21)/(200) = +2.434E+01 g/L Carbon
(235.8 - 3.999512)(21)/(200)(12) = +2.028E+00 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001023DUP Date: 03/09/96 Time: 03:12:39

Sample Size = 200 uL
Dil Factor = 21
Blank ID # = BLK
Blank Value = .5711148 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	42.60	99.06
3	1.51	109.80	61.20
4	2.01	158.70	30.81
5	2.51	191.90	17.30
6	3.01	212.50	9.69
7	3.51	223.80	5.05
8	4.01	230.00	2.70
9	4.50	233.10	1.33
10	5.00	235.10	0.85
11	5.50	236.20	0.47
12	6.01	237.00	0.34
13	6.51	237.40	0.17
14	7.01	237.90	0.21

.100 – 2.0 H20 – .200 Inject

BLANK VALUE = 4 micrograms carbon
BLANK FACTOR = 4 / 7.003845 = +5.7E-01 ug/min Carbon

SAMPLE RESULTS:
(237.9 - 4.001037)(21)/(200) = +2.456E+01 g/L Carbon
(237.9 - 4.001037)(21)/(200)(12) = +2.047E+00 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001023SPK Date: 03/09/96 Time: 03:21:38

Sample Size = 200 uL
Dil Factor = 42
Blank ID # = BLK
Blank Value = .5711148 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	48.90	97.75
3	1.51	99.90	51.05
4	2.01	134.70	25.84
5	2.51	155.10	13.15
6	3.01	166.10	6.62
7	3.51	171.80	3.32
8	4.00	174.80	1.72
9	4.51	176.60	1.02
10	5.01	177.70	0.62
11	5.51	178.30	0.34
12	6.01	178.80	0.28
13	6.50	179.10	0.17
14	7.00	179.50	0.22

.100 - 2.0 ml H2O
↓
.200 - .200 spk - .200 inject

BLANK VALUE = 4 micrograms carbon
BLANK FACTOR = 4 / 7.003845 = +5.7E-01 ug/min Carbon

SAMPLE RESULTS:
(179.5 - 4.000557)(42)/(200) = +3.685E+01 g/L Carbon
(179.5 - 4.000557)(42)/(200)(12) = +3.071E+00 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

LABCORE Data Entry Template for Worklist# 6873

Analyst: RAW **Instrument:** TIC01 WB3A937 **Book #** 17N12-F

Method: LA-622-102 Rev/Mod C-0

Worklist Comment: C-106 FB TIC. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TIC-01	LIQUID	1	25.00	N/A	ug/mL
		2	STD				TIC-01	LIQUID	601	584	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000855	0		TIC-01	LIQUID	N/A	8.00	5.00	ug/mL
96000082	C-106 GRAB	4	DUP	S96T000855	0		TIC-01	LIQUID	8.00	9.50	N/A	ug/mL

Final page for worklist # 6873

R. WENDLAND 3-27-96
Analyst Signature **Date**

[illegible] 3-28-96
Analyst Signature **Date**

Raymond R. Schroeder
3-29-96

Data Entry Comments: SAMPLE - .200 DIRECT

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 03/27/96 Time: 07:36:24

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .4195391 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	20.70	99.03
3	1.51	55.00	62.36
4	2.01	82.20	33.09
5	2.51	98.90	16.89
6	3.01	108.90	9.18
7	3.51	114.20	4.64
8	4.01	116.90	2.31
9	4.51	118.50	1.35
10	5.01	118.90	0.34

BLANK VALUE = 2.1 micrograms carbon
BLANK FACTOR = 2.1 / 5.005493 = +4.2E-01 ug/min Carbon

SAMPLE RESULTS:
(118.9 - 2.100013)(1)/(200) = +5.840E-01 g/L Carbon
(118.9 - 2.100013)(1)/(200)(12) = +4.867E-02 Molar Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 918 TO 918.

Sample Run By: R. WENDLAND 3-27-96
RA WENDLAND 00000

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			STANDARD
	Sample Volume in mL	(SS)	0.200
STANDARD	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6873	µg of Carbon in Sample	(C1)	118.9
	µg of Carbon in Blank	(C2)	2.1
TIC-01			
LIQUID	g of Carbon/L	=	5.84E-01

17N12F

WB39937

RAW

03/27/96

07:36 AM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

µg Carbon/mL =	5.84E+02	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	RJ	Date:	03/29/96
Approved by:	RWS	Date:	3/29/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			BLANK
	Sample Volume in mL	(SS)	0.200
BLANK	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6873	µg of Carbon in Sample	(C1)	2.1
	µg of Carbon in Blank	(C2)	1.9
TIC-01			
LIQUID	g of Carbon/L	= <	5.00E-03
BLNK			
WB39937			
RAW			
03/27/96			
07:36 AM			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

Detection Level (µg/mL) = $\frac{1 \mu g\ C * DF * DDF}{SS}$

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	< 5.00E+00	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:		Date:	03/29/96
Approved by:	RWS	Date:	3/29/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6873	µg of Carbon in Sample	(C1)	3.7
	µg of Carbon in Blank	(C2)	2.1
TIC-01			
LIQUID	g of Carbon/L	=	8.00E-03
S96T000855			
WB39937			
RAW			
03/27/96			
07:36 AM			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

µg Carbon/mL =	8.00E+00	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	[illegible]	Date:	03/29/96
Approved by:	RWS	Date:	3/29/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TIC : LA-622-102 (C-0) LIQUIDS

			DUPLICATE
	Sample Volume in mL	(SS)	0.200
DUPLICATE	Dilution Factor	(DF)	1.000
	Digest Dilution Factor	(DDF)	1.000
6873	µg of Carbon in Sample	(C1)	4
	µg of Carbon in Blank	(C2)	2.1
TIC-01			
LIQUID	g of Carbon/L	=	9.50E-03
S96T000855DUP			
WB39937			
RAW			
03/27/96			
07:36 AM			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{SS * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 m

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{SS}$

µg Carbon/mL =	9.50E+00	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:		Date:	03/29/96
Approved by:	RWS	Date:	3/29/96

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/27/96 Time: 07:18:52

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.40	0.00
3	1.51	0.70	42.86
4	2.01	1.10	36.36
5	2.51	1.10	0.00
6	3.01	1.30	15.38
7	3.51	1.60	18.75
8	4.01	1.70	5.88
9	4.51	1.90	10.53
10	5.01	2.10	9.52

BLANK VALUE = 2.1 micrograms carbon
BLANK FACTOR = 2.1 / 5.005493 = +4.2E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 923 TO 926.

Sample Run By: Robert W Schmidt for RA Wendland 7/30/96
RA WENDLAND 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BASE Date: 03/27/96 Time: 07:25:23

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .4195391 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.50	60.00
3	1.51	0.50	0.00
4	2.01	0.80	37.50
5	2.51	0.90	11.11
6	3.01	1.10	18.18
7	3.51	1.20	8.33
8	4.01	1.50	20.00
9	4.51	1.60	6.25
10	5.01	1.90	15.79

BLANK VALUE = 2.1 micrograms carbon
BLANK FACTOR = 2.1 / 5.005493 = +4.2E-01 ug/min Carbon

SAMPLE RESULTS:
(1.9 - 2.1)(1)/(200) = < 5.00 E-3 g/L Carbon
(1.9 - 2.1)(1)/(200)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING- PERCENT DIFFERENCE EXCEEDS 10 PERCENT >>>>

Sample Run By: _____
RA WENDLAND 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855 Date: 03/27/96 Time: 08:07:03

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .4195391 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.40	0.00
3	1.51	0.80	50.00
4	2.01	1.50	46.67
5	2.51	2.10	28.57
6	3.01	2.40	12.50
7	3.51	2.70	11.11
8	4.01	3.20	15.63
9	4.51	3.50	8.57
10	5.01	3.70	5.41

BLANK VALUE = 2.1 micrograms carbon
BLANK FACTOR = 2.1 / 5.005493 = +4.2E-01 ug/min Carbon

SAMPLE RESULTS:
(3.7 - 2.1)(1)/(200) = +8.0E-03 g/L Carbon
(3.7 - 2.1)(1)/(200)(12) = +6.7E-04 Molar Carbon

Sample Run By: _____
RA WENDLAND 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855D Date: 03/27/96 Time: 08:12:53

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .4195391 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.50	40.00
3	1.51	1.10	54.55
4	2.01	1.50	26.67
5	2.51	2.40	37.50
6	3.01	2.70	11.11
7	3.51	3.20	15.63
8	4.00	3.40	5.88
9	4.50	3.70	8.11
10	5.00	4.00	7.50

BLANK VALUE = 2.1 micrograms carbon
BLANK FACTOR = 2.1 / 5.005493 = +4.2E-01 ug/min Carbon

SAMPLE RESULTS:
(4 - 2.099654)(1)/(200) = +9.5E-03 g/L Carbon
(4 - 2.099654)(1)/(200)(12) = +7.9E-04 Molar Carbon

Sample Run By: _____
RA WENDLAND 00000

LABCORE Data Entry Template for Worklist# 6214

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** 16N12-E

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: C-106 TOC-02. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-02	LIQUID	1	9.9	N/A	ug/mL
		2	STD				TOC-02	LIQUID	3.00E3	2.90E3	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000538	0		TOC-02	LIQUID	N/A	2.30E3	40.0	ug/mL
96000082	C-106 GRAB	4	DUP	S96T000538	0		TOC-02	LIQUID	2.30E3	2.18E3	N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T000538	0		TOC-02	LIQUID	100	119	N/A	ug/mL

Final page for worklist # 6214

Jackie Steele 3/29/96
Analyst Signature **Date**

Linda Conlin 3/30/96
Analyst Signature **Date**

Reviewed RW Schroeder 4/1/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 03/29/96 Time: 08:12:55

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.60	66.67
3	1.51	1.10	45.45
4	2.00	1.50	26.67
5	2.50	1.80	16.67
6	3.00	2.20	18.18
7	3.50	2.40	8.33
8	4.00	2.60	7.69
9	4.50	2.80	7.14
10	5.00	3.10	9.68
11	5.50	3.30	6.06
12	6.00	3.50	5.71
13	6.50	3.80	7.89
14	7.00	4.00	5.00
15	7.50	4.20	4.76
16	8.00	4.40	4.55
17	8.50	4.60	4.35
18	9.00	4.80	4.17
19	9.50	5.10	5.88
20	10.00	5.30	3.77
21	10.50	5.50	3.64
22	11.00	5.70	3.51

BLANK VALUE = 5.7 micrograms carbon
BLANK FACTOR = 5.7 / 10.99982 = +5.2E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 928 TO 939.

Sample Run By: RW Schroeder for JL Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 03/29/96 Time: 08:25:17

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	1.70	100.00
3	1.51	5.50	69.09
4	2.00	14.50	62.07
5	2.50	21.40	32.24
6	3.00	24.00	10.83
7	3.50	25.40	5.51
8	4.00	26.20	3.05
9	4.50	26.80	2.24
10	5.00	27.30	1.83
11	5.50	27.80	1.80
12	6.00	28.10	1.07
13	6.50	28.50	1.40
14	7.00	29.00	1.72
15	7.50	29.50	1.69
16	8.00	29.70	0.67
17	8.50	30.00	1.00
18	9.00	30.40	1.32
19	9.50	30.70	0.98
20	10.00	30.80	0.32
21	10.50	31.10	0.96
22	11.00	31.40	0.96

BLANK VALUE = 31.4 micrograms carbon
BLANK FACTOR = 31.4 / 11.0007 = +2.85E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
JL STEELE 00000

E<

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 17N12-F Date: 03/29/96 Time: 08:39:08

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .52 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.50	0.00
2	1.01	114.80	98.69
3	1.50	281.30	59.19
4	2.00	408.90	31.21
5	2.50	485.80	15.83
6	3.00	526.90	7.80
7	3.50	547.10	3.69
8	4.00	555.10	1.44
9	4.50	558.00	0.52
10	5.00	559.00	0.18
11	5.50	559.90	0.16
12	6.00	560.20	0.05
13	6.50	560.60	0.07
14	7.00	561.00	0.07
15	7.50	561.50	0.09
16	8.00	561.50	0.00
17	8.50	561.90	0.07
18	9.00	562.10	0.04
19	9.50	562.40	0.05
20	10.00	562.70	0.05
21	10.50	563.00	0.05
22	11.00	563.20	0.04

USER INPUT BLANK VALUE
BLANK VALUE = 5.720365 micrograms carbon
BLANK FACTOR = 5.720365 / 11.0007 = +5.2E-01 ug/min Carbon

SAMPLE RESULTS:
(563.2 - 5.719904)(1)/(1) = +5.575E+02 g/L Carbon
(563.2 - 5.719904)(1)/(1)(12) = +4.646E+01 Molar Carbon

Sample Run By: JL STEELE 00000

930

$\frac{557.5}{600} = 92.92\%$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12-E Date: 03/29/96 Time: 08:52:45

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.85 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	45.80	100.00
3	1.51	209.20	78.11
4	2.01	427.70	51.09
5	2.50	552.00	22.52
6	3.00	588.90	6.27
7	3.50	600.50	1.93
8	4.00	604.30	0.63
9	4.50	605.50	0.20
10	5.00	606.50	0.16
11	5.50	607.20	0.12
12	6.00	607.80	0.10
13	6.50	608.30	0.08
14	7.00	608.80	0.08
15	7.50	609.20	0.07
16	8.00	609.60	0.07
17	8.50	610.20	0.10
18	9.00	610.40	0.03
19	9.50	611.00	0.10
20	10.00	611.00	0.00
21	10.50	611.40	0.07
22	11.00	611.80	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 31.352 micrograms carbon
BLANK FACTOR = 31.352 / 11.0007 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(611.8 - 31.34913)(1)/(1) = +5.805E+02 g/L Carbon
(611.8 - 31.34913)(1)/(1)(12) = +4.837E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

$\frac{2902.5}{3000} = 96.75\%$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 03/29/96 Time: 09:04:53

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .52 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.90	89.47
3	1.50	2.40	20.83
4	2.00	3.10	22.58
5	2.50	3.40	8.82
6	3.00	3.70	8.11
7	3.50	4.00	7.50
8	4.00	4.20	4.76
9	4.50	4.50	6.67
10	5.00	4.80	6.25
11	5.50	5.00	4.00
12	6.00	5.20	3.85
13	6.50	5.50	5.45
14	7.00	5.70	3.51
15	7.50	6.00	5.00
16	8.00	6.20	3.23
17	8.50	6.40	3.13
18	9.00	6.70	4.48
19	9.50	6.90	2.90
20	10.00	7.10	2.82
21	10.50	7.30	2.74
22	11.00	7.60	3.95

USER INPUT BLANK VALUE
BLANK VALUE = 5.720365 micrograms carbon
BLANK FACTOR = 5.720365 / 11.0007 = +5.2E-01 ug/min Carbon

SAMPLE RESULTS:
(7.6 - 5.719904)(1)/(1) = +1.9E+00 g/L Carbon
(7.6 - 5.719904)(1)/(1)(12) = +1.6E-01 Molar Carbon

Sample Run By: JL STEELE 00000

7.60 - 5.701 = 1.9

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 03/29/96 Time: 09:17:24

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.85 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	1.60	100.00
3	1.51	5.80	72.41
4	2.00	11.00	47.27
5	2.50	14.70	25.17
6	3.00	15.80	6.96
7	3.50	16.40	3.66
8	4.01	17.00	3.53
9	4.50	17.40	2.30
10	5.00	17.80	2.25
11	5.50	18.20	2.20
12	6.00	18.60	2.15
13	6.50	18.80	1.06
14	7.00	19.10	1.57
15	7.50	19.50	2.05
16	8.00	19.70	1.02
17	8.50	20.10	1.99
18	9.00	20.30	0.99
19	9.50	20.60	1.46
20	10.00	20.90	1.44
21	10.50	21.20	1.42
22	11.00	21.50	1.40

USER INPUT BLANK VALUE
BLANK VALUE = 31.352 micrograms carbon
BLANK FACTOR = 31.352 / 11.0007 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(21.5 - 31.35191)(1)/(1) = < 5.00 E-3 g/L Carbon
(21.5 - 31.35191)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

(21.50 - 31.40) = 9.9

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538 Date: 03/29/96 Time: 11:06:30

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .52 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.50	0.00
2	1.01	69.80	97.85
3	1.50	435.10	83.96
4	2.00	689.80	36.92
5	2.50	819.00	15.78
6	3.00	889.60	7.94
7	3.50	930.40	4.39
8	4.00	952.10	2.28
9	4.50	959.70	0.79
10	5.00	962.90	0.33
11	5.50	964.80	0.20
12	6.00	966.10	0.13
13	6.50	967.20	0.11
14	7.00	968.20	0.10
15	7.50	969.30	0.11
16	8.00	970.10	0.08
17	8.50	970.80	0.07
18	9.00	971.60	0.08
19	9.50	972.40	0.08
20	10.00	973.10	0.07
21	10.50	973.70	0.06
22	11.00	974.30	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 5.720365 micrograms carbon
BLANK FACTOR = 5.720365 / 11.0007 = +5.2E-01 ug/min Carbon

SAMPLE RESULTS:
(974.3 - 5.720349)(1)/(1) = +9.686E+02 g/L Carbon
(974.3 - 5.720349)(1)/(1)(12) = +8.071E+01 Molar Carbon

Sample Run By: JL STEELE 00000

$\frac{968.6}{.050} = 1.9372^{E4}$

934

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538 Date: 03/29/96 Time: 11:18:45

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.85 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	9.80	96.94
3	1.50	42.40	76.89
4	2.00	83.00	48.92
5	2.50	113.10	26.61
6	3.00	127.10	11.01
7	3.50	132.10	3.79
8	4.00	134.80	2.00
9	4.50	136.50	1.25
10	5.00	138.00	1.09
11	5.50	139.00	0.72
12	6.00	139.90	0.64
13	6.50	141.10	0.85
14	7.00	142.00	0.63
15	7.50	142.80	0.56
16	8.00	143.40	0.42
17	8.50	144.00	0.42
18	9.00	144.50	0.35
19	9.50	145.10	0.41
20	10.00	145.50	0.27
21	10.50	145.90	0.27
22	11.00	146.40	0.34

USER INPUT BLANK VALUE
BLANK VALUE = 31.352 micrograms carbon
BLANK FACTOR = 31.352 / 11.0007 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(146.4 - 31.34948)(1)/(1) = +1.151E+02 g/L Carbon
(146.4 - 31.34948)(1)/(1)(12) = +9.588E+00 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

$\frac{115.1}{.050\ ml} = 2.302E3$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 538 DUP Date: 03/29/96 Time: 11:31:42

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .52 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	72.30	100.00
3	1.50	467.70	84.54
4	2.00	735.40	36.40
5	2.50	856.10	14.10
6	3.00	905.10	5.41
7	3.50	929.10	2.58
8	4.00	937.30	0.87
9	4.50	939.80	0.27
10	5.00	941.40	0.17
11	5.50	942.40	0.11
12	6.00	943.20	0.08
13	6.50	944.00	0.08
14	7.00	944.70	0.07
15	7.50	945.30	0.06
16	8.00	946.10	0.08
17	8.50	946.70	0.06
18	9.00	947.20	0.05
19	9.50	947.90	0.07
20	10.00	948.50	0.06
21	10.50	949.30	0.08
22	11.00	949.90	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 5.720365 micrograms carbon
BLANK FACTOR = 5.720365 / 11.0007 = +5.2E-01 ug/min Carbon

SAMPLE RESULTS:
(949.9 - 5.720349)(1)/(1) = +9.442E+02 g/L Carbon
(949.9 - 5.720349)(1)/(1)(12) = +7.868E+01 Molar Carbon

Sample Run By: JL STEELE 00000

$\frac{944.2}{.050} = 1.8884E4$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 538 DUP Date: 03/29/96 Time: 11:44:12

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.85 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	9.40	100.00
3	1.50	39.70	76.32
4	2.00	75.00	47.07
5	2.50	103.20	27.33
6	3.00	119.70	13.78
7	3.50	126.10	5.08
8	4.00	128.50	1.87
9	4.50	130.20	1.31
10	5.00	131.60	1.06
11	5.50	132.80	0.90
12	6.00	133.70	0.67
13	6.50	134.60	0.67
14	7.00	135.50	0.66
15	7.50	136.20	0.51
16	8.00	136.80	0.44
17	8.50	137.40	0.44
18	9.00	138.00	0.43
19	9.50	138.80	0.58
20	10.00	139.40	0.43
21	10.50	140.00	0.43
22	11.00	140.40	0.28

USER INPUT BLANK VALUE
BLANK VALUE = 31.352 micrograms carbon
BLANK FACTOR = 31.352 / 11.0007 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(140.4 - 31.35139)(1)/(1) = +1.090E+02 g/L Carbon
(140.4 - 31.35139)(1)/(1)(12) = +9.087E+00 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

$\frac{109.0}{.050} = 2.180^{E3}$

\

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 538 SPIKE Date: 03/29/96 Time: 12:07:13

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .52 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	46.00	100.00
3	1.51	370.50	87.58
4	2.00	759.40	51.21
5	2.50	1004.00	24.36
6	3.00	1120.00	10.36
7	3.50	1169.60	4.24
8	4.00	1192.10	1.89
9	4.50	1200.30	0.68
10	5.00	1203.10	0.23
11	5.50	1204.60	0.12
12	6.00	1205.70	0.09
13	6.50	1206.60	0.07
14	7.00	1207.50	0.07
15	7.50	1208.30	0.07
16	8.00	1209.20	0.07
17	8.50	1209.80	0.05
18	9.00	1210.60	0.07
19	9.50	1211.30	0.06
20	10.00	1212.10	0.07
21	10.50	1212.80	0.06
22	11.00	1213.40	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 5.720365 micrograms carbon
BLANK FACTOR = 5.720365 / 11.0007 = +5.2E-01 ug/min Carbon

SAMPLE RESULTS:
(1213.4 - 5.719936)(1)/(1) = +1.2077E+03 g/L Carbon
(1213.4 - 5.719936)(1)/(1)(12) = +1.0064E+02 Molar Carbon

Sample Run By: JL STEELE 00000

933

$\frac{1213.40}{97430} + 300 = \frac{1213.40}{1274.30} = 95.22\%$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 538 SPIKE Date: 03/29/96 Time: 12:20:38

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.85 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	6.60	100.00
3	1.51	30.30	78.22
4	2.00	84.30	64.06
5	2.50	240.50	64.95
6	3.00	397.20	39.45
7	3.50	464.30	14.45
8	4.00	490.90	5.42
9	4.50	502.40	2.29
10	5.00	506.00	0.71
11	5.50	508.50	0.49
12	6.00	510.40	0.37
13	6.50	512.30	0.37
14	7.00	513.60	0.25
15	7.50	515.20	0.31
16	8.00	517.70	0.48
17	8.50	523.00	1.01
18	9.00	526.70	0.70
19	9.50	528.80	0.40
20	10.00	530.10	0.25
21	10.50	530.90	0.15
22	11.00	531.70	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 31.352 micrograms carbon
BLANK FACTOR = 31.352 / 11.0007 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(531.7 - 31.34426)(1)/(1) = +5.004E+02 g/L Carbon
(531.7 - 31.34426)(1)/(1)(12) = +4.170E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

939

Sample Run By: _____
JL STEELE 00000

~~146.40~~ 3/29/96
~~53~~

$\frac{531.70}{146.40+300} = \frac{531.70}{446.40} = 119.11\%$

LABCORE Data Entry Template for Worklist# 6317

Analyst: DBS **Instrument:** TOC01 _____ **Book #** 16 N 12 - D

Method: LA-344-105 Rev/Mod C-0 SpK# 11N12-H

Worklist Comment: C-106 TOC. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-01	LIQUID	1	<5.00	N/A	ug/mL
		2	STD				TOC-01	LIQUID	3.00e3	2.99E03	N/A	ug/mL
96000174	C-106 GRAB	3	SAMPLE	S96T001023	0		TOC-01	LIQUID	N/A	2.49E03	5.50e1	ug/mL
96000174	C-106 GRAB	4	DUP	S96T001023	0		TOC-01	LIQUID	2.49E03	2.54E03	N/A	ug/mL
96000174	C-106 GRAB	5	SPK	S96T001023	0		TOC-01	LIQUID	100	97.3	N/A	ug/mL

Final page for worklist # 6317

DBS 3-8-96
Analyst Signature **Date**

[illegible] 3-10-96
Analyst Signature **Date**

Reviewed RW Schwedy 3/12/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

				BLANK
	Sample Volume in mL		(SS)	0.200
BLANK	H2SO4 Volume in mL		(VR)	0.000
	Volume Injected in mL		(VI)	0.200
6317	Dilution Factor		(DF)	1
	Digest Dilution Factor		(DDF)	1
TOC-01	µg of Carbon in Sample		(C1)	5.6
	µg of Carbon in Blank		(C2)	5.1
LIQUID	g of Carbon/L	=	<	5.00E-03

BLNK

DGG

03/08/96

10:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{VI}$

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	<	5.00E+00	DETECTION LEVEL in µg/mL
			5.00E+00

Data Entry by:		Date:	03/12/96
Approved by:	Rus Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			STANDARD
	Sample Volume in mL	(SS)	0.200
STANDARD	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6317	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	59.9
	µg of Carbon in Blank	(C2)	5.6
LIQUID	g of Carbon/L	=	2.99E+00

16N12D

DGG

03/08/96

10:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

µg Carbon/mL =	2.99E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:		Date:	03/12/96
Approved by:	RW Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6317	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	50.8
	µg of Carbon in Blank	(C2)	5.6
LIQUID	g of Carbon/L	=	2.49E+00

S96T001023

DGG

03/08/96

10:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

µg Carbon/mL =	2.49E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:		Date:	03/12/96
Approved by:	RW Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			DUPLICATE
	Sample Volume in mL	(SS)	0.200
DUPLICATE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6317	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	51.7
	µg of Carbon in Blank	(C2)	5.6
LIQUID	g of Carbon/L	=	2.54E+00

S96T001023DUP

DGG

03/08/96

10:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{VI}$

µg Carbon/mL =	2.54E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:		Date:	03/12/96
Approved by:	RW Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

TOC: LA-344-105 SPIKED SAMPLE

SPIKE

	>>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400
	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.400
6317	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
	µg of Carbon in Sample	50.8	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	5.6	Sample Pre-Spike Dil. Factor (PDF)	11
			Spike Value (µg/ml)	748
LIQUID			µg C in Sample + Spike	101
			µg C in Blank	5.6
S96T001023				
TOC01				
DG GRIFFIN				
03/08/96				
11:20 PM				

PERCENT SPIKE RE = µg Carbon Recovered from Spike * 100 / µg Carbon in Spike

WHERE : µg Carbon Recovered from Spike =
[(µgC in sample + spike - µgC in blank) * (Spike Correction Factor)]
- [(µgC sample - µgC blank) * (Sample Correction Factor) * (Sample Size Correction Factor) * (PDF)]

Spike Correction Factor = Total volume in spiked sample vial (mL) / Volume injected (mL)

Sample Correction Factor = Total volume in sample vial (mL) / Volume injected (mL)

Sample Size Correction Factor = Sample size in (mL) in spiked vial / Sample size (mL) in sample

Sample Pre-Spike Dilution Factor = 1 / Dilution of Sample Before Added to Spike Vial

WHERE : µg Carbon in Spike = Spike Value (µg/mL) * Spike Volume (mL)

Percent Spike Recovery 97.3%

945

Data Entry by: [signature] Date: 10-Mar-96

Approved by: [signature] Date: 3/12/96

Form X Rev. 1.1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/08/96 Time: 22:26:19

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	1.10	63.64
3	1.51	1.50	26.67
4	2.01	1.90	21.05
5	2.51	2.40	20.83
6	3.01	2.70	11.11
7	3.51	3.00	10.00
8	4.01	3.40	11.76
9	4.50	3.80	10.53
10	5.00	4.10	7.32
11	5.50	4.50	8.89
12	6.00	4.80	6.25
13	6.50	5.20	7.69
14	7.00	5.60	7.14

BLANK VALUE = 5.6 micrograms carbon
BLANK FACTOR = 5.6 / 7.003784 = +8.0E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 946 TO 951.

Sample Run By: RW Schroeder for DG Griffin 6/11/96
DG GRIFFIN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 03/08/96 Time: 22:34:19

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .7995678 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.90	66.67
3	1.50	1.40	35.71
4	2.00	1.70	17.65
5	2.50	2.10	19.05
6	3.00	2.50	16.00
7	3.50	2.80	10.71
8	4.00	3.10	9.68
9	4.50	3.50	11.43
10	5.00	3.80	7.89
11	5.50	4.10	7.32
12	6.00	4.50	8.89
13	6.50	4.80	6.25
14	7.00	5.10	5.88

BLANK VALUE = 5.6 micrograms carbon
BLANK FACTOR = 5.6 / 7.003784 = +8.0E-01 ug/min Carbon

SAMPLE RESULTS:
(5.1 - 5.599317)(1)/(200) = < 5.00 E-3 g/L Carbon
(5.1 - 5.599317)(1)/(200)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: LMCS STD. Date: 03/08/96 Time: 22:42:30

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .7995678 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	35.80	97.49
3	1.51	44.60	19.73
4	2.01	49.00	8.98
5	2.51	52.00	5.77
6	3.01	54.00	3.70
7	3.51	55.40	2.53
8	4.01	56.40	1.77
9	4.51	57.40	1.74
10	5.01	58.00	1.03
11	5.51	58.60	1.02
12	6.01	59.10	0.85
13	6.51	59.40	0.51
14	7.00	59.90	0.83

BLANK VALUE = 5.6 micrograms carbon
BLANK FACTOR = 5.6 / 7.003784 = +8.0E-01 ug/min Carbon

SAMPLE RESULTS:
(59.9 - 5.600878)(11)/(200) = +2.99E+00 g/L Carbon
(59.9 - 5.600878)(11)/(200)(12) = +2.49E-01 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

.200 – 2.0 – .200 inject

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001023 Date: 03/08/96 Time: 23:03:21

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .7995678 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	26.50	96.60
3	1.51	33.80	21.60
4	2.01	37.80	10.58
5	2.51	40.50	6.67
6	3.01	42.70	5.15
7	3.51	44.20	3.39
8	4.01	45.50	2.86
9	4.50	46.70	2.57
10	5.00	47.70	2.10
11	5.50	48.50	1.65
12	6.00	49.40	1.82
13	6.50	50.00	1.20
14	7.00	50.80	1.57

BLANK VALUE = 5.6 micrograms carbon
BLANK FACTOR = 5.6 / 7.003784 = +8.0E-01 ug/min Carbon

SAMPLE RESULTS:
(50.8 - 5.600098)(11)/(200) = +2.49E+00 g/L Carbon
(50.8 - 5.600098)(11)/(200)(12) = +2.07E-01 Molar Carbon

Sample Run By: DG GRIFFIN 00000

.200 -2.0- .200 inject

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001023DUP Date: 03/08/96 Time: 23:11:41

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .7995678 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	26.80	95.15
3	1.51	34.30	21.87
4	2.01	38.10	9.97
5	2.50	41.00	7.07
6	3.00	43.00	4.65
7	3.50	44.80	4.02
8	4.00	46.10	2.82
9	4.50	47.40	2.74
10	5.00	48.40	2.07
11	5.50	49.30	1.83
12	6.00	50.20	1.79
13	6.50	51.00	1.57
14	7.00	51.70	1.35

BLANK VALUE = 5.6 micrograms carbon
BLANK FACTOR = 5.6 / 7.003784 = +8.0E-01 ug/min Carbon

SAMPLE RESULTS:
(51.7 - 5.599414)(11)/(200) = +2.54E+00 g/L Carbon
(51.7 - 5.599414)(11)/(200)(12) = +2.11E-01 Molar Carbon

Sample Run By: DG GRIFFIN 00000

950

.200 -2.0- .200 inject

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001023SPK Date: 03/08/96 Time: 23:20:46

Sample Size = 200 uL
Dil Factor = 22
Blank ID # = BLK
Blank Value = .7995678 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.50	0.00
2	1.01	50.90	97.05
3	1.51	73.30	30.56
4	2.01	81.10	9.62
5	2.51	86.40	6.13
6	3.01	89.90	3.89
7	3.51	92.60	2.92
8	4.01	94.60	2.11
9	4.50	96.30	1.77
10	5.01	97.50	1.23
11	5.51	98.50	1.02
12	6.01	99.50	1.01
13	6.51	100.30	0.80
14	7.00	101.00	0.69

BLANK VALUE = 5.6 micrograms carbon
BLANK FACTOR = 5.6 / 7.003784 = +8.0E-01 ug/min Carbon

SAMPLE RESULTS:
(101 - 5.600878)(22)/(200) = +1.049E+01 g/L Carbon
(101 - 5.600878)(22)/(200)(12) = +8.745E-01 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

LABCORE Data Entry Template for Worklist# 6884

Analyst: SLS2 **Instrument:** CARB2 _____ **Book #** 16N12-E

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: C-106 FB TOC. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-02	LIQUID	1	1.6	N/A	ug/mL
		2	STD				TOC-02	LIQUID	3.00E3	2.79E3	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000855	0		TOC-02	LIQUID	N/A	<40	40	ug/mL
96000082	C-106 GRAB	4	DUP	S96T000855	0		TOC-02	LIQUID	<40	<40	N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T000855	0		TOC-02	LIQUID	100	~~85~~ 85	N/A	ug/mL

RWS 3/29/96

Final page for worklist # 6884

Irene Steele 3/27/96
Analyst Signature **Date**

[illegible] 3-28-96
Analyst Signature **Date**

Reviewed RW Schroeder
3/29/96

TIC Data Included As
Additional Information

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

SLS
#2

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 03/27/96 Time: 09:10:53

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	0.80	37.50
3	1.50	1.20	33.33
4	2.00	1.90	36.84
5	2.50	2.30	17.39
6	3.00	2.50	8.00
7	3.50	3.10	19.35
8	4.00	3.50	11.43
9	4.50	4.00	12.50
10	5.00	4.50	11.11
11	5.50	5.00	10.00
12	6.00	5.20	3.85
13	6.50	5.80	10.34
14	7.00	6.10	4.92
15	7.50	6.50	6.15
16	8.00	7.00	7.14
17	8.50	7.40	5.41
18	9.00	7.80	5.13
19	9.50	8.20	4.88
20	10.00	8.90	7.87
21	10.50	9.20	3.26
22	11.00	9.50	3.16

BLANK VALUE = 9.5 micrograms carbon
BLANK FACTOR = 9.5 / 11.0025 = +8.6E-01 ug/min Carbon

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 953 TO 964.

Sample Run By: Robert W Schroeder for JL Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 03/27/96 Time: 09:47:41

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.90	100.00
3	1.51	2.60	65.38
4	2.00	6.70	61.19
5	2.50	11.40	41.23
6	3.00	13.90	17.99
7	3.50	15.10	7.95
8	4.00	15.80	4.43
9	4.50	16.30	3.07
10	5.00	16.80	2.98
11	5.50	17.30	2.89
12	6.00	17.70	2.26
13	6.50	18.10	2.21
14	7.00	18.50	2.16
15	7.50	18.90	2.12
16	8.00	19.30	2.07
17	8.50	19.70	2.03
18	9.00	19.90	1.01
19	9.50	20.30	1.97
20	10.00	20.60	1.46
21	10.50	20.80	0.96
22	11.00	21.10	1.42

BLANK VALUE = 21.1 micrograms carbon
BLANK FACTOR = 21.1 / 11.00171 = +1.92E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 17N12-F Date: 03/27/96 Time: 10:01:38

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .86 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	17.10	98.83
3	1.51	145.10	88.22
4	2.00	312.10	53.51
5	2.50	440.10	29.08
6	3.01	517.40	14.94
7	3.51	557.70	7.23
8	4.01	577.00	3.34
9	4.50	585.00	1.37
10	5.00	588.10	0.53
11	5.50	589.50	0.24
12	6.00	590.30	0.14
13	6.50	590.90	0.10
14	7.00	591.40	0.08
15	7.50	591.90	0.08
16	8.00	592.30	0.07
17	8.50	592.70	0.07
18	9.00	593.10	0.07
19	9.50	593.40	0.05
20	10.00	593.70	0.05
21	10.50	594.10	0.07
22	11.00	594.30	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 9.46147 micrograms carbon
BLANK FACTOR = 9.46147 / 11.00171 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(594.3 - 9.461417)(1)/(1) = +5.848E+02 g/L Carbon
(594.3 - 9.461417)(1)/(1)(12) = +4.874E+01 Molar Carbon

Sample Run By: JL STEELE 00000

584.8 / 600 = 97.47%

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12-E Date: 03/27/96 Time: 10:14:41

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.92 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	2.10	90.48
3	1.51	23.90	91.21
4	2.00	139.50	82.87
5	2.50	342.30	59.25
6	3.00	479.10	28.55
7	3.50	539.60	11.21
8	4.00	562.70	4.11
9	4.50	569.60	1.21
10	5.00	572.00	0.42
11	5.50	573.20	0.21
12	6.00	574.10	0.16
13	6.50	574.70	0.10
14	7.00	575.30	0.10
15	7.50	575.90	0.10
16	8.00	576.30	0.07
17	8.50	576.70	0.07
18	9.00	577.10	0.07
19	9.50	577.60	0.09
20	10.00	577.90	0.05
21	10.50	578.30	0.07
22	11.00	578.70	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 21.12328 micrograms carbon
BLANK FACTOR = 21.12328 / 11.00171 = +1.9E+00 ug/min Carbon

SAMPLE RESULTS:
(578.7 - 21.11777)(1)/(1) = +5.576E+02 g/L Carbon
(578.7 - 21.11777)(1)/(1)(12) = +4.647E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

956

$\frac{2.788^{E3}}{3.0^{E3}} = 92.93\%$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BASE Date: 03/27/96 Time: 10:27:26

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .86 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	2.70	81.48
3	1.50	4.10	34.15
4	2.00	4.80	14.58
5	2.50	5.30	9.43
6	3.00	5.60	5.36
7	3.50	5.90	5.08
8	4.00	6.20	4.84
9	4.50	6.50	4.62
10	5.00	6.70	2.99
11	5.50	7.00	4.29
12	6.00	7.30	4.11
13	6.50	7.60	3.95
14	7.00	7.80	2.56
15	7.50	8.20	4.88
16	8.00	8.40	2.38
17	8.50	8.60	2.33
18	9.00	9.00	4.44
19	9.50	9.20	2.17
20	10.00	9.40	2.13
21	10.50	9.70	3.09
22	11.00	9.90	2.02

USER INPUT BLANK VALUE
BLANK VALUE = 9.46147 micrograms carbon
BLANK FACTOR = 9.46147 / 11.00171 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(9.9 - 9.459843)(1)/(1) = +4.4E-01 g/L Carbon
(9.9 - 9.459843)(1)/(1)(12) = +3.7E-02 Molar Carbon

Sample Run By: JL STEELE 00000

|9.90-9.50| = .40

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BASE Date: 03/27/96 Time: 10:41:17

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.92 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.80	62.50
3	1.51	2.90	72.41
4	2.00	7.90	63.29
5	2.50	12.60	37.30
6	3.00	15.70	19.75
7	3.50	17.10	8.19
8	4.00	17.80	3.93
9	4.50	18.40	3.26
10	5.00	18.90	2.65
11	5.50	19.30	2.07
12	6.00	19.60	1.53
13	6.50	20.00	2.00
14	7.00	20.40	1.96
15	7.50	20.60	0.97
16	8.00	20.90	1.44
17	8.50	21.20	1.42
18	9.00	21.50	1.40
19	9.50	21.90	1.83
20	10.00	22.10	0.90
21	10.50	22.40	1.34
22	11.00	22.70	1.32

USER INPUT BLANK VALUE
BLANK VALUE = 21.12328 micrograms carbon
BLANK FACTOR = 21.12328 / 11.00171 = +1.9E+00 ug/min Carbon

SAMPLE RESULTS:
(22.7 - 21.11965)(1)/(1) = +1.58E+00 g/L Carbon
(22.7 - 21.11965)(1)/(1)(12) = +1.32E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

|22.70 − 21.10| = 1.6

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000855 Date: 03/27/96 Time: 10:54:55

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .86 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	1.90	94.74
3	1.50	4.90	61.22
4	2.00	7.30	32.88
5	2.50	8.70	16.09
6	3.00	9.90	12.12
7	3.50	10.50	5.71
8	4.00	10.90	3.67
9	4.50	11.20	2.68
10	5.00	11.40	1.75
11	5.50	11.60	1.72
12	6.00	11.90	2.52
13	6.50	12.10	1.65
14	7.00	12.30	1.63
15	7.50	12.50	1.60
16	8.00	12.80	2.34
17	8.50	13.00	1.54
18	9.00	13.20	1.52
19	9.50	13.50	2.22
20	10.00	13.60	0.74
21	10.50	13.90	2.16
22	11.00	14.10	1.42

USER INPUT BLANK VALUE
BLANK VALUE = 9.46147 micrograms carbon
BLANK FACTOR = 9.46147 / 11.00171 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(14.1 - 9.457428)(1)/(1) = +4.64E+00 g/L Carbon
(14.1 - 9.457428)(1)/(1)(12) = +3.87E-01 Molar Carbon

Sample Run By: JL STEELE 00000

4.64
1.0ml

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000855 Date: 03/27/96 Time: 11:07:20

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.92 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.90	100.00
3	1.50	4.80	81.25
4	2.00	13.40	64.18
5	2.50	20.90	35.89
6	3.00	24.90	16.06
7	3.50	26.90	7.43
8	4.00	27.90	3.58
9	4.50	28.60	2.45
10	5.00	29.20	2.05
11	5.50	29.60	1.35
12	6.00	30.00	1.33
13	6.50	30.50	1.64
14	7.00	30.80	0.97
15	7.50	31.10	0.96
16	8.00	31.40	0.96
17	8.50	31.70	0.95
18	9.00	32.00	0.94
19	9.50	32.30	0.93
20	10.00	32.60	0.92
21	10.50	32.90	0.91
22	11.00	33.10	0.60

USER INPUT BLANK VALUE
BLANK VALUE = 21.12328 micrograms carbon
BLANK FACTOR = 21.12328 / 11.00171 = +1.9E+00 ug/min Carbon

SAMPLE RESULTS:
(33.1 - 21.12129)(1)/(1) = +1.20E+01 g/L Carbon
(33.1 - 21.12129)(1)/(1)(12) = +9.98E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

12.0 / 41.0ml =

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855 DUP Date: 03/27/96 Time: 11:26:48

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .86 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.60	87.50
3	1.50	4.30	62.79
4	2.00	6.70	35.82
5	2.50	8.40	20.24
6	3.00	9.50	11.58
7	3.50	10.10	5.94
8	4.00	10.60	4.72
9	4.50	10.90	2.75
10	5.00	11.10	1.80
11	5.50	11.30	1.77
12	6.00	11.50	1.74
13	6.50	11.80	2.54
14	7.00	12.00	1.67
15	7.50	12.20	1.64
16	8.00	12.50	2.40
17	8.50	12.60	0.79
18	9.00	12.90	2.33
19	9.50	13.10	1.53
20	10.00	13.30	1.50
21	10.50	13.50	1.48
22	11.00	13.70	1.46

USER INPUT BLANK VALUE
BLANK VALUE = 9.46147 micrograms carbon
BLANK FACTOR = 9.46147 / 11.00171 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(13.7 - 9.459738)(1)/(1) = +4.24E+00 g/L Carbon
(13.7 - 9.459738)(1)/(1)(12) = +3.53E-01 Molar Carbon

Sample Run By: _____
JL STEELE 00000

961

~~13.70 - 9.50~~ 18

4.24
1.0ml

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855 DUP Date: 03/27/96 Time: 11:38:59

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.92 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.90	77.78
3	1.50	4.20	78.57
4	2.00	11.70	64.10
5	2.50	18.60	37.10
6	3.00	22.70	18.06
7	3.50	24.70	8.10
8	4.00	25.70	3.89
9	4.50	26.40	2.65
10	5.00	26.90	1.86
11	5.50	27.30	1.47
12	6.00	27.70	1.44
13	6.50	28.00	1.07
14	7.00	28.40	1.41
15	7.50	28.60	0.70
16	8.00	29.00	1.38
17	8.50	29.20	0.68
18	9.00	29.50	1.02
19	9.50	29.80	1.01
20	10.00	30.20	1.32
21	10.50	30.30	0.33
22	11.00	30.60	0.98

USER INPUT BLANK VALUE
BLANK VALUE = 21.12328 micrograms carbon
BLANK FACTOR = 21.12328 / 11.00171 = +1.9E+00 ug/min Carbon

SAMPLE RESULTS:
(30.6 - 21.1159)(1)/(1) = +9.48E+00 g/L Carbon
(30.6 - 21.1159)(1)/(1)(12) = +7.90E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

9.48
1.0ml

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855 SPIKE Date: 03/27/96 Time: 11:52:46

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .86 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	7.10	98.59
3	1.50	67.20	89.43
4	2.00	148.00	54.59
5	2.50	214.80	31.10
6	3.00	257.70	16.65
7	3.50	283.30	9.04
8	4.00	294.40	3.77
9	4.50	299.40	1.67
10	5.00	301.50	0.70
11	5.50	302.40	0.30
12	6.00	302.90	0.17
13	6.50	303.30	0.13
14	7.00	303.60	0.10
15	7.50	303.90	0.10
16	8.00	304.20	0.10
17	8.50	304.40	0.07
18	9.00	304.70	0.10
19	9.50	304.90	0.07
20	10.00	305.20	0.10
21	10.50	305.40	0.07
22	11.00	305.70	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 9.46147 micrograms carbon
BLANK FACTOR = 9.46147 / 11.00171 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(305.7 - 9.460526)(1)/(1) = +2.962E+02 g/L Carbon
(305.7 - 9.460526)(1)/(1)(12) = +2.469E+01 Molar Carbon

Sample Run By: JL STEELE 963 00000

$$\frac{305.70}{\frac{9.90}{1.0} \times 1.0 + 300} = \frac{30570}{309.90} = 98.64\%$$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855 SPIKE Date: 03/27/96 Time: 13:18:25

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.92 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	1.40	78.57
3	1.51	17.50	92.00
4	2.00	93.70	81.32
5	2.50	187.70	50.08
6	3.00	243.10	22.79
7	3.50	265.60	8.47
8	4.00	273.00	2.71
9	4.50	275.40	0.87
10	5.00	276.40	0.36
11	5.50	277.20	0.29
12	6.00	277.90	0.25
13	6.50	278.30	0.14
14	7.00	278.80	0.18
15	7.50	279.20	0.14
16	8.00	279.50	0.11
17	8.50	280.00	0.18
18	9.00	280.30	0.11
19	9.50	280.70	0.14
20	10.00	281.00	0.11
21	10.50	281.30	0.11
22	11.00	281.60	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 21.12328 micrograms carbon
BLANK FACTOR = 21.12328 / 11.00171 = +1.9E+00 ug/min Carbon

SAMPLE RESULTS:
(281.6 - 21.11789)(1)/(1) = +2.605E+02 g/L Carbon
(281.6 - 21.11789)(1)/(1)(12) = +2.171E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: JL STEELE 00000

$\frac{281.60}{33.10 + 300} = \frac{281.60}{333.10} = 84.52$

worklistrpt Version 2.1 05/15/95
04/10/96 15:00

LABCORE Data Entry Template for Worklist# 7417

Analyst: RLMcCown **Instrument:** CARB2 _____ **Book #** TIC 22N12A TOC 16N12E

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK				TOC-02	LIQUID	1	5.00	N/A	ug/mL
		2 STD				TOC-02	LIQUID	3.00e3	2.88e3	N/A	ug/mL
96000082	C-106 GRAB	3 SAMPLE	S96T000545	0		TOC-02	LIQUID	N/A	2.42e3	40.0	ug/mL
96000082	C-106 GRAB	4 DUP	S96T000545	0		TOC-02	LIQUID	2.42e3	2.43e3	N/A	ug/mL
96000082	C-106 GRAB	5 SPK	S96T000545	0		TOC-02	LIQUID	100	95.5	N/A	ug/mL
96000082	C-106 GRAB	6 SAMPLE	S96T000563	0		TOC-02	LIQUID	N/A	2.35e3	40.0	ug/mL
96000082	C-106 GRAB	7 DUP	S96T000563	0		TOC-02	LIQUID	2.35e3	2.28e3	N/A	ug/mL

Final page for worklist # 7417

RLMcCown 4/15/96
Analyst Signature **Date**

TEWright 4/15/96
Analyst Signature **Date**

Reviewed RW Schroeder
4/16/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE Date: 04/14/96 Time: 19:37:11

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASE
Blank Value = N/A

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	1.40	71.43
3	1.51	3.60	61.11
4	2.00	9.00	60.00
5	2.50	14.00	35.71
6	3.01	16.90	17.16
7	3.51	18.90	10.58
8	4.01	20.00	5.50
9	4.50	20.90	4.31
10	5.00	21.80	4.13
11	5.50	22.50	3.11
12	6.00	22.90	1.75
13	6.50	23.60	2.97
14	7.00	23.90	1.26
15	7.50	24.40	2.05
16	8.00	25.20	3.17
17	8.50	25.80	2.33
18	9.00	26.40	2.27
19	9.50	27.00	2.22
20	10.00	27.60	2.17
21	10.50	28.10	1.78
22	11.00	28.40	1.06

BLANK VALUE = 28.4 micrograms carbon
BLANK FACTOR = 28.4 / 11.00171 = +2.58E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 966 TO 977.

Sample Run By: PJ McCown
PJ MCCOWN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 16N12-E Date: 04/14/96 Time: 20:06:41

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.58 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.00	1.70	76.47
3	1.50	24.90	93.17
4	2.00	140.20	82.24
5	2.50	345.70	59.44
6	3.00	495.50	30.23
7	3.50	560.60	11.61
8	4.00	584.50	4.09
9	4.50	592.00	1.27
10	5.00	594.80	0.47
11	5.50	596.30	0.25
12	6.00	597.10	0.13
13	6.50	598.10	0.17
14	7.00	598.80	0.12
15	7.50	599.50	0.12
16	8.00	600.20	0.12
17	8.50	601.20	0.17
18	9.00	602.40	0.20
19	9.50	602.70	0.05
20	10.00	603.30	0.10
21	10.50	604.00	0.12
22	11.00	604.30	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(604.3 - 28.38346)(1)/(200) = +2.880E+00 g/L Carbon
(604.3 - 28.38346)(1)/(200)(12) = +2.400E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

.200 mL STD

967

2.88e3

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/14/96 Time: 22:02:55

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.58 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	1.20	75.00
3	1.50	4.30	72.09
4	2.00	9.00	52.22
5	2.50	12.80	29.69
6	3.00	15.00	14.67
7	3.50	16.00	6.25
8	4.01	16.80	4.76
9	4.50	17.60	4.55
10	5.00	18.10	2.76
11	5.50	18.60	2.69
12	6.00	19.20	3.13
13	6.50	19.50	1.54
14	7.00	19.90	2.01
15	7.50	20.40	2.45
16	8.00	21.00	2.86
17	8.50	21.40	1.87
18	9.00	21.90	2.28
19	9.50	22.20	1.35
20	10.00	22.60	1.77
21	10.50	22.90	1.31
22	11.00	23.40	2.14

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(23.4 - 28.37906)(1)/(1) = < 5.00 E-3 g/L Carbon
(23.4 - 28.37906)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

|23.4 - 28.4| = 5.00

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..545 SAM Date: 04/14/96 Time: 22:58:23

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.58 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	7.20	84.72
3	1.51	52.70	86.34
4	2.00	133.10	60.41
5	2.50	194.20	31.46
6	3.00	228.00	14.82
7	3.50	242.70	6.06
8	4.00	249.10	2.57
9	4.50	253.00	1.54
10	5.00	255.70	1.06
11	5.50	258.30	1.01
12	6.00	260.10	0.69
13	6.50	261.70	0.61
14	7.00	263.40	0.65
15	7.50	264.50	0.42
16	8.00	265.60	0.41
17	8.50	266.50	0.34
18	9.00	267.40	0.34
19	9.50	268.30	0.34
20	10.00	268.80	0.19
21	10.50	269.40	0.22
22	11.00	270.10	0.26

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(270.1 - 28.37685)(1)/(1) = +2.417E+02 g/L Carbon
(270.1 - 28.37685)(1)/(1)(12) = +2.014E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1259g
.100mL

963

242/.100 = 2.42e3

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..545 DUP Date: 04/14/96 Time: 23:26:29

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.58 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	6.70	88.06
3	1.50	52.80	87.31
4	2.00	133.40	60.42
5	2.50	197.00	32.28
6	3.00	230.90	14.68
7	3.50	246.50	6.33
8	4.00	252.20	2.26
9	4.50	255.70	1.37
10	5.00	257.90	0.85
11	5.50	259.90	0.77
12	6.00	261.50	0.61
13	6.50	262.60	0.42
14	7.00	263.90	0.49
15	7.50	264.80	0.34
16	8.00	265.80	0.38
17	8.50	267.00	0.45
18	9.00	268.10	0.41
19	9.50	269.00	0.33
20	10.00	269.70	0.26
21	10.50	270.50	0.30
22	11.00	271.00	0.18

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(271 - 28.37968)(1)/(1) = +2.426E+02 g/L Carbon
(271 - 28.37968)(1)/(1)(12) = +2.022E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1273g
.100mL

243/.100 = 2.43e3

970

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..545 SPK Date: 04/15/96 Time: 00:00:38

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.58 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.70	0.00
2	1.01	6.00	88.33
3	1.51	41.50	85.54
4	2.01	153.20	72.91
5	2.51	317.80	51.79
6	3.01	427.80	25.71
7	3.50	483.20	11.47
8	4.00	507.90	4.86
9	4.50	516.90	1.74
10	5.00	521.00	0.79
11	5.50	523.30	0.44
12	6.00	525.40	0.40
13	6.50	527.30	0.36
14	7.00	528.80	0.28
15	7.50	531.00	0.41
16	8.00	534.30	0.62
17	8.50	537.40	0.58
18	9.00	538.70	0.24
19	9.50	540.20	0.28
20	10.00	541.70	0.28
21	10.50	543.20	0.28
22	11.00	544.20	0.18

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(544.2 - 28.38157)(1)/(1) = +5.158E+02 g/L Carbon
(544.2 - 28.38157)(1)/(1)(12) = +4.298E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

971

.1240g
.100mL
+ .100mL 16N12E STD

$$\frac{\cancel{270.1}\ 544.2}{\left(\frac{270.1}{.100}\right)(.100)+300} \times 100 = 95.5\%$$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE Date: 04/14/96 Time: 19:23:25

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASE
Blank Value = N/A

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	0.90	44.44
3	1.51	1.50	40.00
4	2.00	2.10	28.57
5	2.50	2.50	16.00
6	3.00	3.00	16.67
7	3.50	3.50	14.29
8	4.00	3.80	7.89
9	4.50	4.30	11.63
10	5.00	4.90	12.24
11	5.50	5.10	3.92
12	6.00	5.50	7.27
13	6.50	5.80	5.17
14	7.00	6.20	6.45
15	7.50	6.60	6.06
16	8.00	7.00	5.71
17	8.50	7.30	4.11
18	9.00	7.70	5.19
19	9.50	8.00	3.75
20	10.00	8.50	5.88
21	10.50	8.80	3.41
22	11.00	9.00	2.22

BLANK VALUE = 9 micrograms carbon
BLANK FACTOR = 9 / 10.9989 = +8.2E-01 ug/min Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 22N12-A Date: 04/14/96 Time: 19:53:21

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.80	0.00
2	1.01	14.10	87.23
3	1.50	154.70	90.89
4	2.00	338.80	54.34
5	2.50	467.90	27.59
6	3.00	542.20	13.70
7	3.50	577.90	6.18
8	4.00	595.10	2.89
9	4.50	602.50	1.23
10	5.00	605.60	0.51
11	5.50	606.30	0.12
12	6.00	607.40	0.18
13	6.50	607.80	0.07
14	7.00	608.30	0.08
15	7.50	608.80	0.08
16	8.00	609.20	0.07
17	8.50	609.50	0.05
18	9.00	610.00	0.08
19	9.50	610.40	0.07
20	10.00	610.60	0.03
21	10.50	611.00	0.07
22	11.00	611.50	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(611.5 - 9.0205)(1)/(1000) = +6.025E-01 g/L Carbon
(611.5 - 9.0205)(1)/(1000)(12) = +5.021E-02 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

1.0 ML STD

973

6.02e2 % RWS 4/15/96

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/14/96 Time: 21:39:09

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.90	66.67
3	1.51	1.30	30.77
4	2.01	1.80	27.78
5	2.51	2.20	18.18
6	3.01	2.40	8.33
7	3.51	2.80	14.29
8	4.01	3.10	9.68
9	4.50	3.40	8.82
10	5.00	3.70	8.11
11	5.50	4.10	9.76
12	6.00	4.30	4.65
13	6.50	4.60	6.52
14	7.00	5.00	8.00
15	7.50	5.20	3.85
16	8.00	5.60	7.14
17	8.50	5.90	5.08
18	9.00	6.20	4.84
19	9.50	6.50	4.62
20	10.00	6.80	4.41
21	10.50	7.10	4.23
22	11.00	7.40	4.05

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(7.4 - 9.021401)(1)/(1) = < 5.00 E-3 g/L Carbon
(7.4 - 9.021401)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

|9.02-7.4| = 1.62 974

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..545 SAM Date: 04/14/96 Time: 22:30:55

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.90	0.00
2	1.00	180.30	98.95
3	1.50	923.00	80.47
4	2.00	1669.80	44.72
5	2.50	2416.50	30.90
6	3.00	2921.90	17.30
7	3.50	2967.70	1.54
8	4.00	2984.80	0.57
9	4.50	2991.50	0.22
10	5.00	2995.30	0.13
11	5.50	2998.20	0.10
12	6.00	3000.50	0.08
13	6.50	3002.10	0.05
14	7.00	3003.50	0.05
15	7.50	3004.70	0.04
16	8.00	3006.10	0.05
17	8.50	3007.00	0.03
18	9.00	3007.80	0.03
19	9.50	3009.10	0.04
20	10.00	3009.50	0.01
21	10.50	3010.30	0.03
22	11.00	3011.20	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(3011.2 - 9.021301)(1)/(1) = +3.0022E+03 g/L Carbon
(3011.2 - 9.021301)(1)/(1)(12) = +2.5018E+02 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1259g
.100mL

3.002e3 / .100ml = 3.00e4

975

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..545 DUP Date: 04/14/96 Time: 23:13:36

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	208.50	99.47
3	1.50	954.20	78.15
4	2.00	1701.30	43.91
5	2.50	2447.80	30.50
6	3.00	2918.80	16.14
7	3.50	2960.00	1.39
8	4.00	2975.20	0.51
9	4.50	2981.80	0.22
10	5.00	2985.20	0.11
11	5.50	2987.50	0.08
12	6.00	2989.70	0.07
13	6.50	2991.20	0.05
14	7.00	2992.60	0.05
15	7.50	2993.80	0.04
16	8.00	2995.10	0.04
17	8.50	2995.90	0.03
18	9.00	2996.90	0.03
19	9.50	2997.70	0.03
20	10.00	2998.60	0.03
21	10.50	2999.20	0.02
22	11.00	2999.90	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(2999.9 - 9.019099)(1)/(1) = +2.9909E+03 g/L Carbon
(2999.9 - 9.019099)(1)/(1)(12) = +2.4924E+02 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1273 g
.100 mL

2991/.100 = 2.99e4

976

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..545 SPK Date: 04/14/96 Time: 23:42:23

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.01	127.90	98.91
3	1.51	862.90	85.18
4	2.00	1609.90	46.40
5	2.50	2356.60	31.69
6	3.00	3024.50	22.08
7	3.50	3135.70	3.55
8	4.00	3185.40	1.56
9	4.50	3204.80	0.61
10	5.00	3212.80	0.25
11	5.50	3216.90	0.13
12	6.00	3219.70	0.09
13	6.50	3221.40	0.05
14	7.00	3223.20	0.06
15	7.50	3224.80	0.05
16	8.00	3226.20	0.04
17	8.50	3227.30	0.03
18	9.00	3228.20	0.03
19	9.50	3229.30	0.03
20	10.00	3230.10	0.02
21	10.50	3231.10	0.03
22	11.00	3231.90	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(3231.9 - 9.018398)(1)/(1) = +3.2229E+03 g/L Carbon
(3231.9 - 9.018398)(1)/(1)(12) = +2.6857E+02 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1240g
.100mL
+ .500mL 22N12A STD

977

$$\frac{3232}{\left(\frac{3011.2}{.100}\right).100 + 300} \times 100 = 97.6\%$$ spk rec.

LABCORE Data Entry Template for Worklist# 7510

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** 116N12-E

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106 FOR TOC-02 (use oily layer for min ss)rec amount left.

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-02	LIQUID	1	3	N/A	ug/mL
		2	STD				TOC-02	LIQUID	3.00E3	2.82E3	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T001567	0		TOC-02	LIQUID	N/A	3.09E4		ug/mL
96000082	C-106 GRAB	4	DUP	S96T001567	0		TOC-02	LIQUID	3.08E4	3.48E4	N/A	ug/mL
96000174	C-106 GRAB	5	SAMPLE	S96T001679	0		TOC-02	LIQUID	N/A	2.48E4		ug/mL
96000174	C-106 GRAB	6	DUP	S96T001679	0		TOC-02	LIQUID	2.48E4	2.20E4	N/A	ug/mL

Final page for worklist # 7510

Jackie Steele 4/10/96
Analyst Signature **Date**

Tom D. West 4/11/96
Analyst Signature **Date**

Reviewed RW Schroeder 4/11/96

Sample 1567:
There did not appear to be 2 layers/phases. The whole sample looked oily.
amount remaining ≈ .1000 g MAX.
Sample 1679:
also very oily looking.
amount remaining ≈ 1 mL (quite a bit more than 1567.)

Data Entry Comments:

TIC Data Included As
~~Additional Information~~

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/10/96 Time: 08:26:09

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.00	1.30	61.54
3	1.50	2.10	38.10
4	2.00	2.70	22.22
5	2.50	3.20	15.63
6	3.00	3.50	8.57
7	3.50	4.00	12.50
8	4.00	4.30	6.98
9	4.50	4.60	6.52
10	5.00	5.10	9.80
11	5.50	5.30	3.77
12	6.00	5.70	7.02
13	6.50	6.10	6.56
14	7.00	6.40	4.69
15	7.50	6.60	3.03
16	8.00	7.00	5.71
17	8.50	7.30	4.11
18	9.00	7.60	3.95
19	9.50	7.90	3.80
20	10.00	8.30	4.82
21	10.50	8.60	3.49
22	11.00	8.90	3.37

BLANK VALUE = 8.9 micrograms carbon
BLANK FACTOR = 8.9 / 10.99802 = +8.1E-01 ug/min Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/10/96 Time: 08:38:26

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.90	88.89
3	1.50	3.50	74.29
4	2.00	7.70	54.55
5	2.50	10.50	26.67
6	3.00	12.10	13.22
7	3.50	12.70	4.72
8	4.00	13.30	4.51
9	4.50	14.00	5.00
10	5.00	14.50	3.45
11	5.50	15.10	3.97
12	6.00	15.60	3.21
13	6.50	16.10	3.11
14	7.00	16.70	3.59
15	7.50	17.20	2.91
16	8.00	17.60	2.27
17	8.50	18.10	2.76
18	9.00	18.60	2.69
19	9.50	19.10	2.62
20	10.00	19.40	1.55
21	10.50	19.70	1.52
22	11.00	20.10	1.99

BLANK VALUE = 20.1 micrograms carbon
BLANK FACTOR = 20.1 / 10.99985 = +1.83E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 04/10/96 Time: 08:51:34

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	20.30	99.01
3	1.51	151.40	86.59
4	2.01	313.90	51.77
5	2.51	438.60	28.43
6	3.00	511.30	14.22
7	3.50	544.80	6.15
8	4.00	559.10	2.56
9	4.50	564.60	0.97
10	5.00	566.70	0.37
11	5.50	567.60	0.16
12	6.00	568.30	0.12
13	6.50	568.90	0.11
14	7.00	569.30	0.07
15	7.50	569.80	0.09
16	8.00	570.20	0.07
17	8.50	570.60	0.07
18	9.00	571.00	0.07
19	9.50	571.40	0.07
20	10.00	571.60	0.03
21	10.50	572.00	0.07
22	11.00	572.30	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(572.3 - 8.912027)(1)/(1) = +5.634E+02 g/L Carbon
(572.3 - 8.912027)(1)/(1)(12) = +4.695E+01 Molar Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

$\frac{563.4}{602} = 93.59\%$ 981

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/10/96 Time: 09:16:03

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	1.50	73.33
3	1.50	3.00	50.00
4	2.00	3.80	21.05
5	2.50	4.40	13.64
6	3.00	4.70	6.38
7	3.50	5.10	7.84
8	4.00	5.40	5.56
9	4.50	5.70	5.26
10	5.00	5.90	3.39
11	5.50	6.20	4.84
12	6.00	6.60	6.06
13	6.50	6.80	2.94
14	7.00	7.00	2.86
15	7.50	7.30	4.11
16	8.00	7.70	5.19
17	8.50	7.80	1.28
18	9.00	8.10	3.70
19	9.50	8.40	3.57
20	10.00	8.60	2.33
21	10.50	8.90	3.37
22	11.00	9.20	3.26

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(9.2 - 8.909852)(1)/(1) = +2.9E-01 g/L Carbon
(9.2 - 8.909852)(1)/(1)(12) = +2.4E-02 Molar Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

|9.20 - 8.90| = .3

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12E Date: 04/10/96 Time: 09:03:46

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.83 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	14.90	97.99
3	1.50	139.20	89.30
4	2.00	373.20	62.70
5	2.50	512.10	27.12
6	3.00	557.90	8.21
7	3.50	569.20	1.99
8	4.00	573.70	0.78
9	4.50	575.20	0.26
10	5.00	576.60	0.24
11	5.50	577.60	0.17
12	6.00	578.50	0.16
13	6.50	579.30	0.14
14	7.00	580.10	0.14
15	7.50	580.60	0.09
16	8.00	581.10	0.09
17	8.50	581.70	0.10
18	9.00	582.20	0.09
19	9.50	582.90	0.12
20	10.00	583.30	0.07
21	10.50	583.90	0.10
22	11.00	584.30	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 20.12972 micrograms carbon
BLANK FACTOR = 20.12972 / 10.99985 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(584.3 - 20.12453)(1)/(1) = +5.642E+02 g/L Carbon
(584.3 - 20.12453)(1)/(1)(12) = +4.701E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

$\frac{564.2}{.200ml} = \frac{2821}{3000} = 94.03\%$

982

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/10/96 Time: 09:36:02

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.83 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.10	81.82
3	1.51	3.50	68.57
4	2.00	7.40	52.70
5	2.50	9.70	23.71
6	3.00	11.10	12.61
7	3.50	11.60	4.31
8	4.00	12.30	5.69
9	4.50	12.60	2.38
10	5.00	13.10	3.82
11	5.50	13.40	2.24
12	6.00	13.80	2.90
13	6.50	14.20	2.82
14	7.00	14.60	2.74
15	7.50	14.90	2.01
16	8.00	15.30	2.61
17	8.50	15.70	2.55
18	9.00	16.00	1.88
19	9.50	16.40	2.44
20	10.00	16.60	1.20
21	10.50	16.90	1.78
22	11.00	17.10	1.17

USER INPUT BLANK VALUE
BLANK VALUE = 20.12972 micrograms carbon
BLANK FACTOR = 20.12972 / 10.99985 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(17.1 - 20.12788)(1)/(1) = < 5.00 E-3 g/L Carbon
(17.1 - 20.12788)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

|17.10 − 20.10| = 3

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001567 Date: 04/10/96 Time: 10:11:33

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	2.10	100.00
3	1.50	57.70	96.36
4	2.00	129.20	55.34
5	2.50	189.90	31.96
6	3.00	234.00	18.85
7	3.50	261.50	10.52
8	4.00	274.90	4.87
9	4.50	280.80	2.10
10	5.00	283.20	0.85
11	5.50	284.40	0.42
12	6.00	285.20	0.28
13	6.50	285.80	0.21
14	7.00	286.30	0.17
15	7.50	286.80	0.17
16	8.00	287.20	0.14
17	8.50	287.80	0.21
18	9.00	288.20	0.14
19	9.50	288.40	0.07
20	10.00	288.80	0.14
21	10.50	289.20	0.14
22	11.00	289.70	0.17

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(289.7 - 8.910396)(1)/(1) = +2.808E+02 g/L Carbon
(289.7 - 8.910396)(1)/(1)(12) = +2.340E+01 Molar Carbon

Sample Run By: Jacque Steele 4/10/96
JL STEELE 00000

$\frac{280.8}{.0273g} = 1.0286^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001567 Date: 04/10/96 Time: 10:23:40

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.83 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	7.30	93.15
3	1.51	70.80	89.69
4	2.00	253.80	72.10
5	2.50	428.10	40.71
6	3.00	528.20	18.95
7	3.50	594.20	11.11
8	4.00	642.20	7.47
9	4.50	679.70	5.52
10	5.00	713.20	4.70
11	5.50	740.30	3.66
12	6.00	764.30	3.14
13	6.50	784.50	2.57
14	7.00	802.30	2.22
15	7.50	818.10	1.93
16	8.00	830.70	1.52
17	8.50	841.30	1.26
18	9.00	849.00	0.91
19	9.50	854.60	0.66
20	10.00	858.00	0.40
21	10.50	860.10	0.24
22	11.00	861.80	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 20.12972 micrograms carbon
BLANK FACTOR = 20.12972 / 10.99985 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(861.8 - 20.12933)(1)/(1) = +8.417E+02 g/L Carbon
(861.8 - 20.12933)(1)/(1)(12) = +7.014E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 4/10/96
JL STEELE 00000

$\frac{841.7}{.0273g} = 3.0832^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1567 DUP Date: 04/10/96 Time: 11:05:03

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.00	2.20	86.36
3	1.50	52.50	95.81
4	2.00	115.60	54.58
5	2.50	165.90	30.32
6	3.00	199.00	16.63
7	3.51	219.60	9.38
8	4.00	229.30	4.23
9	4.50	233.10	1.63
10	5.00	235.00	0.81
11	5.50	236.00	0.42
12	6.00	236.60	0.25
13	6.50	237.10	0.21
14	7.00	237.70	0.25
15	7.50	238.00	0.13
16	8.00	238.50	0.21
17	8.50	238.90	0.17
18	9.00	239.30	0.17
19	9.50	239.80	0.21
20	10.00	240.10	0.12
21	10.50	240.50	0.17
22	11.00	241.00	0.21

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(241 - 8.910543)(1)/(1) = +2.321E+02 g/L Carbon
(241 - 8.910543)(1)/(1)(12) = +1.934E+01 Molar Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

$\frac{232.1}{.0144g} = 1.6118^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001567 dup. Date: 04/10/96 Time: 11:17:31

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.83 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	2.60	80.77
3	1.50	24.20	89.26
4	2.00	115.50	79.05
5	2.50	223.00	48.21
6	3.00	296.60	24.81
7	3.50	342.50	13.40
8	4.00	376.10	8.93
9	4.50	400.20	6.02
10	5.00	419.50	4.60
11	5.50	436.30	3.85
12	6.00	450.60	3.17
13	6.50	462.30	2.53
14	7.00	473.10	2.28
15	7.50	482.00	1.85
16	8.00	490.60	1.75
17	8.50	498.50	1.58
18	9.00	505.10	1.31
19	9.50	510.80	1.12
20	10.00	515.40	0.89
21	10.50	518.40	0.58
22	11.00	520.80	0.46

USER INPUT BLANK VALUE
BLANK VALUE = 20.12972 micrograms carbon
BLANK FACTOR = 20.12972 / 10.99985 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(520.8 - 20.12788)(1)/(1) = +5.007E+02 g/L Carbon
(520.8 - 20.12788)(1)/(1)(12) = +4.172E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

$\frac{500.7}{.0144g} = 3.4771^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001679 Date: 04/10/96 Time: 11:32:04

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	1.50	73.33
3	1.51	16.00	90.63
4	2.01	45.60	64.91
5	2.51	79.10	42.35
6	3.01	107.40	26.35
7	3.51	126.20	14.90
8	4.01	137.30	8.08
9	4.50	143.70	4.45
10	5.00	146.50	1.91
11	5.50	148.20	1.15
12	6.00	149.20	0.67
13	6.50	149.80	0.40
14	7.00	150.40	0.40
15	7.50	151.00	0.40
16	8.00	151.40	0.26
17	8.50	151.80	0.26
18	9.00	152.30	0.33
19	9.50	152.50	0.13
20	10.00	152.90	0.26
21	10.50	153.40	0.33
22	11.00	153.70	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(153.7 - 8.911186)(1)/(1) = +1.448E+02 g/L Carbon
(153.7 - 8.911186)(1)/(1)(12) = +1.207E+01 Molar Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

144.8 / .0519g = 2.789E3

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001679 Date: 04/10/96 Time: 11:44:16

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.83 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	4.80	89.58
3	1.51	47.50	89.89
4	2.00	215.70	77.98
5	2.50	465.20	53.63
6	3.00	640.60	27.38
7	3.50	762.00	15.93
8	4.00	855.20	10.90
9	4.50	927.60	7.81
10	5.00	985.40	5.87
11	5.50	1033.70	4.67
12	6.00	1075.80	3.91
13	6.50	1111.10	3.18
14	7.00	1143.50	2.83
15	7.50	1172.90	2.51
16	8.00	1201.70	2.40
17	8.50	1229.30	2.25
18	9.00	1254.40	2.00
19	9.50	1274.40	1.57
20	10.00	1289.50	1.17
21	10.50	1300.00	0.81
22	11.00	1307.20	0.55

USER INPUT BLANK VALUE
BLANK VALUE = 20.12972 micrograms carbon
BLANK FACTOR = 20.12972 / 10.99985 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1307.2 - 20.13268)(1)/(1) = +1.2871E+03 g/L Carbon
(1307.2 - 20.13268)(1)/(1)(12) = +1.0726E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

~~12~~ JS 4-10-96

$\frac{1287.1}{.05199} = 2.4799E4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1679 DUP Date: 04/10/96 Time: 11:57:45

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.70	0.00
2	1.01	2.30	69.57
3	1.51	24.70	90.69
4	2.00	72.40	65.88
5	2.50	123.70	41.47
6	3.00	166.90	25.88
7	3.50	197.40	15.45
8	4.00	215.80	8.53
9	4.50	225.80	4.43
10	5.00	231.20	2.34
11	5.50	234.20	1.28
12	6.00	236.30	0.89
13	6.50	237.90	0.67
14	7.00	238.80	0.38
15	7.50	239.50	0.29
16	8.00	240.30	0.33
17	8.50	240.90	0.25
18	9.00	241.30	0.17
19	9.50	242.10	0.33
20	10.00	242.70	0.25
21	10.50	243.30	0.25
22	11.00	243.70	0.16

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(243.7 - 8.909802)(1)/(1) = +2.348E+02 g/L Carbon
(243.7 - 8.909802)(1)/(1)(12) = +1.957E+01 Molar Carbon

Sample Run By: Jacque Steele 4/10/96
JL STEELE 00000

$\frac{234.8}{.0783g} = 2.998E3$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1679 DUP Date: 04/10/96 Time: 12:12:58

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.83 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	2.00	75.00
3	1.51	22.50	91.11
4	2.00	151.70	85.17
5	2.50	437.60	65.33
6	3.00	719.90	39.21
7	3.50	913.80	21.22
8	4.00	1059.90	13.78
9	4.50	1173.10	9.65
10	5.00	1266.40	7.37
11	5.50	1339.50	5.46
12	6.00	1402.60	4.50
13	6.50	1452.70	3.45
14	7.00	1496.70	2.94
15	7.50	1535.70	2.54
16	8.00	1570.50	2.22
17	8.50	1602.80	2.02
18	9.00	1636.60	2.07
19	9.50	1669.20	1.95
20	10.00	1699.00	1.75
21	10.50	1724.20	1.46
22	11.00	1743.30	1.10

USER INPUT BLANK VALUE
BLANK VALUE = 20.12972 micrograms carbon
BLANK FACTOR = 20.12972 / 10.99985 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1743.3 - 20.12777)(1)/(1) = +1.7232E+03 g/L Carbon
(1743.3 - 20.12777)(1)/(1)(12) = +1.4360E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 4/10/96
JL STEELE 00000

$\frac{1723.2}{.0783g} = 2.2008^{E4}$

LABCORE Data Entry Template for Worklist# 7535

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** 16N12-E

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106 FOR TOC-02 (RECORD AMOUNT LEFT) RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-02	LIQUID	1	6.5	N/A	ug/mL
		2	STD				TOC-02	LIQUID	3.00E3	2.80E3	N/A	ug/mL
96000174	C-106 GRAB	3	SAMPLE	S96T001681	0		TOC-02	LIQUID	N/A	1.64E3	40.0	ug/mL
96000174	C-106 GRAB	4	DUP	S96T001681	0		TOC-02	LIQUID	1.64E3	1.62E3	N/A	ug/mL
96000174	C-106 GRAB	5	SPK	S96T001681	0		TOC-02	LIQUID	100	97	N/A	ug/mL
96000174	C-106 GRAB	6	SAMPLE	S96T001566	0		TOC-02	LIQUID	N/A	1.86E3	40.0	ug/mL
96000174	C-106 GRAB	7	DUP	S96T001566	0		TOC-02	LIQUID	1.86E3	1.83E3	N/A	ug/mL

E3 RWS 4/15/96

Final page for worklist # 7535

Jaime Steele 4/12/96
Analyst Signature **Date**

Analyst Signature **Date**
Reviewed RW Schroeder 4/15/96

1681 has ≈ 2ml left
1566 has <1 ml left.

Data Entry Comments:

TIC Data Included As Additional Information

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/12/96 Time: 09:01:55

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.01	2.60	46.15
3	1.51	3.40	23.53
4	2.00	3.80	10.53
5	2.50	4.20	9.52
6	3.00	4.50	6.67
7	3.50	4.80	6.25
8	4.00	5.00	4.00
9	4.50	5.20	3.85
10	5.00	5.40	3.70
11	5.50	5.60	3.57
12	6.00	5.90	5.08
13	6.50	6.10	3.28
14	7.00	6.20	1.61
15	7.50	6.50	4.62
16	8.00	6.70	2.99
17	8.50	6.90	2.90
18	9.00	7.10	2.82
19	9.50	7.50	5.33
20	10.00	7.50	0.00
21	10.50	7.80	3.85
22	11.00	8.00	2.50

BLANK VALUE = 8 micrograms carbon
BLANK FACTOR = 8 / 10.99884 = +7.3E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 994 TO 1009.

Sample Run By: Jackie Steele 4/12/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/12/96 Time: 09:14:32

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.00	80.00
3	1.50	6.00	83.33
4	2.00	13.30	54.89
5	2.50	17.30	23.12
6	3.00	19.50	11.28
7	3.50	20.60	5.34
8	4.00	21.50	4.19
9	4.50	22.20	3.15
10	5.00	22.90	3.06
11	5.50	23.50	2.55
12	6.00	24.10	2.49
13	6.50	24.70	2.43
14	7.00	25.10	1.59
15	7.50	25.70	2.33
16	8.00	26.30	2.28
17	8.50	26.70	1.50
18	9.00	27.10	1.48
19	9.50	27.50	1.45
20	10.00	27.90	1.43
21	10.50	28.30	1.41
22	11.00	28.60	1.05

BLANK VALUE = 28.6 micrograms carbon
BLANK FACTOR = 28.6 / 10.99969 = +2.60E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 04/12/96 Time: 09:28:31

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	86.20	98.96
3	1.50	262.60	67.17
4	2.00	422.20	37.80
5	2.50	520.50	18.89
6	3.00	570.60	8.78
7	3.50	590.20	3.32
8	4.00	598.00	1.30
9	4.50	600.40	0.40
10	5.00	601.60	0.20
11	5.50	602.30	0.12
12	6.00	602.90	0.10
13	6.50	603.20	0.05
14	7.00	603.50	0.05
15	7.50	603.80	0.05
16	8.00	604.10	0.05
17	8.50	604.40	0.05
18	9.00	604.70	0.05
19	9.50	604.90	0.03
20	10.00	605.20	0.05
21	10.50	605.50	0.05
22	11.00	605.70	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(605.7 - 8.031248)(1)/(1) = +5.977E+02 g/L Carbon
(605.7 - 8.031248)(1)/(1)(12) = +4.981E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{597.7}{602} = 99.242$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12E Date: 04/12/96 Time: 09:40:56

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	27.10	100.00
3	1.50	198.40	86.34
4	2.00	435.40	54.43
5	2.50	539.80	19.34
6	3.00	565.50	4.54
7	3.50	573.10	1.33
8	4.00	576.10	0.52
9	4.50	577.90	0.31
10	5.00	579.10	0.21
11	5.50	580.30	0.21
12	6.00	581.50	0.21
13	6.50	582.60	0.19
14	7.00	583.50	0.15
15	7.50	584.30	0.14
16	8.00	584.80	0.09
17	8.50	585.50	0.12
18	9.00	586.10	0.10
19	9.50	586.70	0.10
20	10.00	587.30	0.10
21	10.50	587.70	0.07
22	11.00	588.20	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(588.2 - 28.59222)(1)/(1) = +5.596E+02 g/L Carbon
(588.2 - 28.59222)(1)/(1)(12) = +4.663E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{559.6}{.200ml} = \frac{2798}{3000} = 93.268$ 997

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/12/96 Time: 09:53:04

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	2.30	78.26
3	1.51	2.90	20.69
4	2.00	3.40	14.71
5	2.50	3.60	5.56
6	3.00	3.80	5.26
7	3.50	4.10	7.32
8	4.00	4.40	6.82
9	4.50	4.60	4.35
10	5.00	4.70	2.13
11	5.50	4.90	4.08
12	6.00	5.20	5.77
13	6.50	5.40	3.70
14	7.00	5.60	3.57
15	7.50	5.80	3.45
16	8.00	6.00	3.33
17	8.50	6.30	4.76
18	9.00	6.40	1.56
19	9.50	6.60	3.03
20	10.00	6.80	2.94
21	10.50	6.90	1.45
22	11.00	7.30	5.48

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(7.3 - 8.029911)(1)/(1) = < 5.00 E-3 g/L Carbon
(7.3 - 8.029911)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

|7.30 - 8.00| = .7 938

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/12/96 Time: 10:16:14

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.50	100.00
3	1.50	2.60	80.77
4	2.00	5.90	55.93
5	2.50	8.90	33.71
6	3.00	11.60	23.28
7	3.50	12.70	8.66
8	4.00	13.70	7.30
9	4.50	14.40	4.86
10	5.00	15.10	4.64
11	5.50	15.50	2.58
12	6.00	16.00	3.13
13	6.50	16.20	1.23
14	7.00	16.70	2.99
15	7.50	17.10	2.34
16	8.00	17.60	2.84
17	8.50	18.00	2.22
18	9.00	19.10	5.76
19	9.50	20.30	5.91
20	10.00	20.90	2.87
21	10.50	21.40	2.34
22	11.00	22.10	3.17

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(22.1 - 28.59682)(1)/(1) = < 5.00 E-3 g/L Carbon
(22.1 - 28.59682)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele
JL STEELE 00000

|22.10 - 28.60| = 6.5

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001681 Date: 04/12/96 Time: 10:43:54

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	219.60	100.00
3	1.50	965.70	77.26
4	2.00	1655.50	41.67
5	2.50	1874.20	11.67
6	3.01	1956.00	4.18
7	3.51	1987.50	1.58
8	4.00	1997.60	0.51
9	4.50	2002.10	0.22
10	5.00	2003.60	0.07
11	5.50	2005.20	0.08
12	6.00	2006.10	0.04
13	6.50	2007.10	0.05
14	7.00	2007.80	0.03
15	7.50	2008.60	0.04
16	8.00	2009.50	0.04
17	8.50	2010.20	0.03
18	9.00	2010.60	0.02
19	9.50	2011.20	0.03
20	10.00	2011.80	0.03
21	10.50	2012.20	0.02
22	11.00	2012.80	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(2012.8 - 8.031203)(1)/(1) = +2.0048E+03 g/L Carbon
(2012.8 - 8.031203)(1)/(1)(12) = +1.6706E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

~~2004.8~~ JS 4-12-96 / ~~.100 ml~~ JS 4-12-96 (.100ml) = ~~2.0048E4~~ JS 4-12-96 1000

2004.8 / .1010g (.100ml) = 1.984E4

P

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001681 Date: 04/12/96 Time: 10:56:49

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	14.70	97.28
3	1.51	62.20	76.37
4	2.00	119.40	47.91
5	2.50	156.70	23.80
6	3.00	173.20	9.53
7	3.50	179.20	3.35
8	4.00	182.20	1.65
9	4.50	184.00	0.98
10	5.00	185.50	0.81
11	5.50	186.60	0.59
12	6.00	187.90	0.69
13	6.50	188.70	0.42
14	7.00	189.60	0.47
15	7.50	190.20	0.32
16	8.00	191.10	0.47
17	8.50	191.40	0.16
18	9.00	192.10	0.36
19	9.50	192.60	0.26
20	10.00	193.00	0.21
21	10.50	193.50	0.26
22	11.00	193.90	0.21

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(193.9 - 28.6019)(1)/(1) = +1.653E+02 g/L Carbon
(193.9 - 28.6019)(1)/(1)(12) = +1.377E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

165.3 / .101087 ~~.00ml~~ JS 4-12-96 = ~~1.653E3~~ JS 4-12-96 1.637E3
(.100ml)

1001

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1681 DUP Date: 04/12/96 Time: 11:10:06

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	289.30	99.93
3	1.51	1036.70	72.09
4	2.00	1783.00	41.86
5	2.50	2232.70	20.14
6	3.00	2315.50	3.58
7	3.50	2349.50	1.45
8	4.00	2361.50	0.51
9	4.50	2365.70	0.18
10	5.00	2367.90	0.09
11	5.50	2369.50	0.07
12	6.00	2370.70	0.05
13	6.50	2371.50	0.03
14	7.00	2372.40	0.04
15	7.50	2373.20	0.03
16	8.00	2373.90	0.03
17	8.50	2374.60	0.03
18	9.00	2375.10	0.02
19	9.50	2375.70	0.03
20	10.00	2376.10	0.02
21	10.50	2376.70	0.03
22	11.00	2377.00	0.01

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(2377 - 8.029733)(1)/(1) = +2.3690E+03 g/L Carbon
(2377 - 8.029733)(1)/(1)(12) = +1.9741E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{2369.0}{.1212g}$ = 1.9546E4 1002
(.100mL)

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1681 DUP Date: 04/12/96 Time: 11:22:25

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	21.20	98.58
3	1.51	78.80	73.10
4	2.00	142.40	44.66
5	2.50	184.00	22.61
6	3.00	202.00	8.91
7	3.50	209.60	3.63
8	4.00	213.40	1.78
9	4.50	215.40	0.93
10	5.00	216.80	0.65
11	5.50	218.00	0.55
12	6.00	219.10	0.50
13	6.50	219.80	0.32
14	7.00	220.70	0.41
15	7.50	221.40	0.32
16	8.00	221.80	0.18
17	8.50	222.40	0.27
18	9.00	222.80	0.18
19	9.50	223.50	0.31
20	10.00	224.10	0.27
21	10.50	224.70	0.27
22	11.00	225.30	0.27

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(225.3 - 28.6019)(1)/(1) = +1.967E+02 g/L Carbon
(225.3 - 28.6019)(1)/(1)(12) = +1.639E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{1967}{.1212g} = 1.623E3$
(.1000 ...)

1003

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1681 SPIKE Date: 04/12/96 Time: 11:37:32

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	219.90	99.73
3	1.50	966.30	77.24
4	2.00	1713.30	43.60
5	2.50	2383.10	28.11
6	3.00	2565.90	7.12
7	3.50	2639.90	2.80
8	4.00	2668.70	1.08
9	4.50	2678.60	0.37
10	5.00	2682.60	0.15
11	5.50	2684.60	0.07
12	6.00	2686.00	0.05
13	6.50	2687.10	0.04
14	7.00	2688.30	0.04
15	7.50	2689.00	0.03
16	8.00	2689.90	0.03
17	8.50	2690.50	0.02
18	9.00	2691.40	0.03
19	9.50	2691.80	0.01
20	10.00	2692.50	0.03
21	10.50	2692.90	0.01
22	11.00	2693.50	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(2693.5 - 8.028397)(1)/(1) = +2.6855E+03 g/L Carbon
(2693.5 - 8.028397)(1)/(1)(12) = +2.2379E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

1004

$$\frac{2693.50}{\frac{2012.80}{.1010g} \times .1216g + 300} = \frac{2693.50}{2721.34} = 98.9\%$$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1681 SPIKE Date: 04/12/96 Time: 11:51:39

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	20.40	98.04
3	1.50	89.60	77.23
4	2.00	236.70	62.15
5	2.50	381.20	37.91
6	3.00	456.90	16.57
7	3.50	490.00	6.76
8	4.00	501.60	2.31
9	4.50	505.80	0.83
10	5.00	508.10	0.45
11	5.50	509.90	0.35
12	6.00	511.30	0.27
13	6.50	512.40	0.21
14	7.00	513.40	0.19
15	7.50	514.20	0.16
16	8.00	515.10	0.17
17	8.50	516.10	0.19
18	9.00	517.00	0.17
19	9.50	517.90	0.17
20	10.00	518.60	0.13
21	10.50	519.30	0.13
22	11.00	519.90	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(519.9 - 28.60381)(1)/(1) = +4.913E+02 g/L Carbon
(519.9 - 28.60381)(1)/(1)(12) = +4.094E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JLSTEELE 00000

1005

$$\frac{519.90}{\frac{193.90}{.1010g} \times .1215g \div 300} = \frac{519.90}{533.26} = 97.49\%$$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001566 Date: 04/12/96 Time: 12:05:00

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	296.40	99.83
3	1.51	1042.90	71.58
4	2.00	1790.20	41.74
5	2.50	2502.00	28.45
6	3.00	2602.90	3.88
7	3.50	2631.10	1.07
8	4.00	2640.40	0.35
9	4.50	2644.50	0.16
10	5.00	2646.70	0.08
11	5.50	2648.30	0.06
12	6.00	2649.70	0.05
13	6.50	2650.90	0.05
14	7.00	2652.00	0.04
15	7.50	2653.00	0.04
16	8.00	2653.80	0.03
17	8.50	2654.70	0.03
18	9.00	2655.50	0.03
19	9.50	2656.30	0.03
20	10.00	2657.00	0.03
21	10.50	2657.50	0.02
22	11.00	2658.20	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(2658.2 - 8.029733)(1)/(1) = +2.6502E+03 g/L Carbon
(2658.2 - 8.029733)(1)/(1)(12) = +2.2085E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{2650.2}{.1182g}$ = 2.2421E4
(.100ml)

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001566 Date: 04/12/96 Time: 12:19:06

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	18.40	97.28
3	1.51	74.60	75.34
4	2.00	142.30	47.58
5	2.51	192.20	25.96
6	3.01	217.20	11.51
7	3.51	227.20	4.40
8	4.01	232.50	2.28
9	4.50	235.40	1.23
10	5.00	237.10	0.72
11	5.50	238.90	0.75
12	6.00	240.10	0.50
13	6.50	241.20	0.46
14	7.00	241.90	0.29
15	7.50	243.30	0.58
16	8.00	244.60	0.53
17	8.50	245.50	0.37
18	9.00	246.20	0.28
19	9.50	247.10	0.36
20	10.00	247.70	0.24
21	10.50	248.40	0.28
22	11.00	248.90	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(248.9 - 28.60397)(1)/(1) = +2.203E+02 g/L Carbon
(248.9 - 28.60397)(1)/(1)(12) = +1.836E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{220.3}{.1182g} = 1.864E3$

1007

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1566 DUP Date: 04/12/96 Time: 12:33:11

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .73 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	317.10	99.94
3	1.50	1064.50	70.21
4	2.00	1811.20	41.23
5	2.50	2489.50	27.25
6	3.00	2594.00	4.03
7	3.50	2629.60	1.35
8	4.00	2641.50	0.45
9	4.50	2645.80	0.16
10	5.00	2648.50	0.10
11	5.50	2650.30	0.07
12	6.00	2651.80	0.06
13	6.50	2653.10	0.05
14	7.00	2654.40	0.05
15	7.50	2655.50	0.04
16	8.00	2656.50	0.04
17	8.50	2657.40	0.03
18	9.00	2658.20	0.03
19	9.50	2659.00	0.03
20	10.00	2659.70	0.03
21	10.50	2660.30	0.02
22	11.00	2661.00	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 8.029778 micrograms carbon
BLANK FACTOR = 8.029778 / 10.99969 = +7.3E-01 ug/min Carbon

SAMPLE RESULTS:
(2661 - 8.029109)(1)/(1) = +2.6530E+03 g/L Carbon
(2661 - 8.029109)(1)/(1)(12) = +2.2108E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{2653.0}{.1182g\ (.100ml)} = 2.2445^{EP}$

1008

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1566 DUP Date: 04/12/96 Time: 12:46:35

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.6 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading ====	Analysis Time ====	Coulometer ====	% Difference ==
1	0.51	0.40	0.00
2	1.01	24.10	98.34
3	1.50	82.40	70.75
4	2.00	149.40	44.85
5	2.50	194.50	23.19
6	3.00	215.80	9.87
7	3.50	223.90	3.62
8	4.00	228.00	1.80
9	4.50	230.40	1.04
10	5.00	232.10	0.73
11	5.50	233.60	0.64
12	6.00	235.00	0.60
13	6.50	235.90	0.38
14	7.00	237.00	0.46
15	7.50	237.90	0.38
16	8.00	239.20	0.54
17	8.50	240.40	0.50
18	9.00	241.40	0.41
19	9.50	242.30	0.37
20	10.00	243.00	0.29
21	10.50	243.70	0.29
22	11.00	244.30	0.25

USER INPUT BLANK VALUE
BLANK VALUE = 28.59921 micrograms carbon
BLANK FACTOR = 28.59921 / 10.99969 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(244.3 - 28.59667)(1)/(1) = +2.157E+02 g/L Carbon
(244.3 - 28.59667)(1)/(1)(12) = +1.798E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

215.7 / .1182g (100ml) = 1.825E3

1009

worklistrpt Version 2.1 05/15/95
05/07/96 10:01

LABCORE Data Entry Template for Worklist# 7416

Analyst: RAN **Instrument:** TOC01 WB59457 **Book #** 16N12-E 11N12-H

Method: LA-344-105 Rev/Mod C-0

Worklist Comment: C-106 TOC

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK				TOC-01	LIQUID	1	~~<5.00~~ 0.2 RWS 5/10/96	N/A	ug/mL
		2 STD				TOC-01	LIQUID	2.999 E3	3.10 E3	N/A	ug/mL
96000082	C-106 GRAB	3 SAMPLE	S96T000563	0		TOC-01	LIQUID	N/A	~~2.45~~ 2.44 E3 RWS 5/10/96	5.50 E1	ug/mL
96000082	C-106 GRAB	4 DUP	S96T000563	0		TOC-01	LIQUID	~~2.45~~ 2.44 E3	~~2.45~~ 2.44 E3 RWS 5/10/96	N/A	ug/mL
96000082	C-106 GRAB	5 SPK	S96T000563	0		TOC-01	LIQUID	100	95.5	N/A	ug/mL

Final page for worklist # 7416

R. Wendland 5-8-96
Analyst Signature **Date**

[illegible] 5-10-96
Analyst Signature **Date**

Approved RW Schroeder 5-10-96

SAM + STD - .200 - 2mL - .200 INJ.

Data Entry Comments: SPK (.400 dil) + .400 SPK std - .200 inj.

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			Blank
	Sample Volume in mL	(SS)	0.200
Blank	H2SO4 Volume in mL	(VR)	0.000
	Volume Injected in mL	(VI)	0.200
7416	Dilution Factor	(DF)	1
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	4.1
	µg of Carbon in Blank	(C2)	4.3
Liquid	g of Carbon/L =		~~5.00E-03~~

5/10/96 RWS

Blank

WB39937

RA Wendland

05/08/96

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$ $|4.1-4.3| = 0.2$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	0.2 ~~< 5.00E+00~~ RWS 5/10/96	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	RWS	Date:	05/10/96
Approved by:	RW Schroeder	Date:	5/10/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			Standard
	Sample Volume in mL	(SS)	0.200
Standard	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
7416	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	60.6
	µg of Carbon in Blank	(C2)	4.3
Liquid	g of Carbon/L	=	3.10E+00

16N12E

WB39937

RA Wendland

05/08/96

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

µg Carbon/mL =	3.10E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:	RWS	Date:	05/10/96
Approved by:	RW Schneider	Date:	5/10/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			Sample
	Sample Volume in mL	(SS)	0.200
Sample	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
7416	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	48.7
	µg of Carbon in Blank	(C2)	4.3
Liquid	g of Carbon/L	=	2.44E+00
S96T000563	g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$		
WB39937			
	µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L		
RA Wendland			
05/08/96	Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$		

µg Carbon/mL =	2.44E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:	RWS	Date:	05/10/96
Approved by:	RW Schroeder	Date:	5/10/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			Duplicate
	Sample Volume in mL	(SS)	0.200
Duplicate	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
7416	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	48.7
	µg of Carbon in Blank	(C2)	4.3
Liquid	g of Carbon/L	=	2.44E+00

S96T000563

WB39937

RA Wendland

05/08/96

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

µg Carbon/mL =	2.44E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:	RW S	Date:	05/10/96
Approved by:	RW Schroeder	Date:	5/10/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

TOC: LA-344-105 SPIKED SAMPLE

SPIKE

	>>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400
	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.400
7416	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
	µg of Carbon in Sample	48.7	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	4.3	Sample Pre-Spike Dil. Factor (PDF)	11
			Spike Value (µg/ml)	748
Liquid			µg C in Sample + Spike	97.8
			µg C in Blank	4.3
S96T000563				
TOC01				
RA Wendland				
05/08/96				

PERCENT SPIKE RE = µg Carbon Recovered from Spike * 100 / µg Carbon in Spike

WHERE : µg Carbon Recovered from Spike =
[(µgC in sample + spike - µgC in blank) * (Spike Correction Factor)]
- [(µgC sample - µgC blank) * (Sample Correction Factor) * (Sample Size Correction Factor) * (PDF)]

Spike Correction Factor = Total volume in spiked sample vial (mL) / Volume injected (mL)

Sample Correction Factor = Total volume in sample vial (mL) / Volume injected (mL)

Sample Size Correction Factor = Sample size in (mL) in spiked vial / Sample size (mL) in sample

Sample Pre-Spike Dilution Factor = 1 / Dilution of Sample Before Added to Spike Vial

WHERE : µg Carbon in Spike = Spike Value (µg/mL) * Spike Volume (mL)

Percent Spike Recovery 95.3%

1015

Data Entry by:	RWS	Date:	10-May-96
Approved by:	RW Schroeder	Date:	5/10/96

Form X Rev. 1.1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0 WHC-SD-WM-DP-183, REV. 0

Sample: STD Date: 05/08/96 Time: 07:32:14

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .8191001 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.80	0.00
2	1.01	28.40	97.18
3	1.51	49.70	42.86
4	2.01	55.70	10.77
5	2.51	57.80	3.63
6	3.01	58.80	1.70
7	3.51	59.30	0.84
8	4.01	59.80	0.84
9	4.51	60.20	0.66
10	5.01	60.60	0.66

BLANK VALUE = 4.1 micrograms carbon
BLANK FACTOR = 4.1 / 5.005493 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(60.6 - 4.1)(11)/(200) = +3.11E+00 g/L Carbon
(60.6 - 4.1)(11)/(200)(12) = +2.59E-01 Molar Carbon

Sample Run By: R. WENDLAND
RA WENDLAND 00000

E EEEEE

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BASE Date: 05/08/96 Time: 06:54:28

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 0 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.90	55.56
3	1.51	1.30	30.77
4	2.01	1.80	27.78
5	2.51	2.10	14.29
6	3.01	2.60	19.23
7	3.51	3.00	13.33
8	4.00	3.50	14.29
9	4.50	3.90	10.26
10	5.00	4.30	9.30

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +0.0E+00 ug/min Carbon

SAMPLE RESULTS:
(4.3 - 0)(1)/(200) = +2.2E-02 g/L Carbon
(4.3 - 0)(1)/(200)(12) = +1.8E-03 Molar Carbon

Sample Run By: R. Wendland
RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 05/08/96 Time: 07:13:46

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.80	75.00
3	1.51	1.30	38.46
4	2.01	1.60	18.75
5	2.51	2.00	20.00
6	3.01	2.50	20.00
7	3.51	2.80	10.71
8	4.01	3.20	12.50
9	4.51	3.60	11.11
10	5.01	4.10	12.20

BLANK VALUE = 4.1 micrograms carbon
BLANK FACTOR = 4.1 / 5.005493 = +8.2E-01 ug/min Carbon

Sample Run By: RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 563 Date: 05/08/96 Time: 12:01:19

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .8191001 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	29.70	96.97
3	1.50	40.40	26.49
4	2.00	43.90	7.97
5	2.51	45.80	4.15
6	3.01	46.70	1.93
7	3.51	47.30	1.27
8	4.00	47.90	1.25
9	4.50	48.20	0.62
10	5.00	48.70	1.03

BLANK VALUE = 4.1 micrograms carbon
BLANK FACTOR = 4.1 / 5.005493 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(48.7 - 4.0993)(11)/(200) = +2.45E+00 g/L Carbon
(48.7 - 4.0993)(11)/(200)(12) = +2.04E-01 Molar Carbon

Sample Run By: R. WENDLAND
RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 563DUP Date: 05/08/96 Time: 12:06:59

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .8191001 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	31.00	96.77
3	1.51	39.60	21.72
4	2.00	43.00	7.91
5	2.51	44.90	4.23
6	3.01	46.40	3.23
7	3.51	47.00	1.28
8	4.01	47.70	1.47
9	4.50	48.30	1.24
10	5.00	48.70	0.82

BLANK VALUE = 4.1 micrograms carbon
BLANK FACTOR = 4.1 / 5.005493 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(48.7 - 4.09935)(11)/(200) = +2.45E+00 g/L Carbon
(48.7 - 4.09935)(11)/(200)(12) = +2.04E-01 Molar Carbon

Sample Run By: R. Wendland
RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 563SPK Date: 05/08/96 Time: 12:25:58

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .8191001 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	8.30	0.00
2	1.01	72.00	88.47
3	1.51	81.90	12.09
4	2.00	87.30	6.19
5	2.50	90.90	3.96
6	3.01	93.50	2.78
7	3.51	95.00	1.58
8	4.01	96.20	1.25
9	4.50	97.10	0.93
10	5.00	97.80	0.72

BLANK VALUE = 4.1 micrograms carbon
BLANK FACTOR = 4.1 / 5.005493 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(97.8 - 4.0993)(1)/(200) = +4.69E-01 g/L Carbon
(97.8 - 4.0993)(1)/(200)(12) = +3.90E-02 Molar Carbon

Sample Run By: R WENDLAND
RA WENDLAND 00000

LABCORE Data Entry Template for Worklist# 8128

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** 22N12A 16N12E

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: C-106 FOR TOC-02 gjh

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-02	LIQUID	1	1.6	N/A	ug/mL
		2	STD				TOC-02	LIQUID	2.99e3	2.77e3	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T001544	0		TOC-02	LIQUID	N/A	1.87e3	40.0	ug/mL
96000082	C-106 GRAB	4	DUP	S96T001544	0		TOC-02	LIQUID	1.87e3	1.50e3	N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T001544	0		TOC-02	LIQUID	100	93.2	N/A	ug/mL
96000082	C-106 GRAB	6	SAMPLE	S96T001526	0		TOC-02	SOLID	N/A	6.05e4	40.0	ug/g
96000082	C-106 GRAB	7	DUP	S96T001526	0		TOC-02	SOLID	6.05e4	5.03e4	N/A	ug/g

Final page for worklist # 8128

Analyst Signature Date

Analyst Signature Date 5-7-96

Approved RW Schroeder ~~5/6~~ 5/7/96

RWS 5/7/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 8128

Analyst: JLS2 **Instrument:** CARB2 _____ **Book#** 22N12A TIC 16N12E TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106 FOR TOC-02 gjh

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				TOC-02	LIQUID		
2	STD				TOC-02	LIQUID		
3	SAMPLE	S96T001544	0		TOC-02	LIQUID	96000082	C-106 GRAB
	Analytes Requested: TOC-02							
4	DUP	S96T001544	0		TOC-02	LIQUID		
5	SPK	S96T001544	0		TOC-02	LIQUID		
6	SAMPLE	S96T001526	0		TOC-02	SOLID	96000082	C-106 GRAB
	Analytes Requested: TOC-02							
7	DUP	S96T001526	0		TOC-02	SOLID		
8	SPK	S96T001526	0		TOC-02	SOLID		

Final page for worklist # 8128

Jacque Steele 4/30/96
Analyst Signature **Date**

_____
Analyst Signature **Date**

Data Entry Comments:
#S96T001544 could not be calculated in ug/ml because sample would not hold in pipet tip. Sample was calculated using weight (in g.) instead of volume (ml).

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/30/96 Time: 09:21:47

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.00	2.60	50.00
3	1.50	3.00	13.33
4	2.00	3.40	11.76
5	2.50	3.80	10.53
6	3.00	4.00	5.00
7	3.50	4.20	4.76
8	4.00	4.40	4.55
9	4.50	4.60	4.35
10	5.00	4.70	2.13
11	5.50	4.90	4.08
12	6.00	5.00	2.00
13	6.50	5.20	3.85
14	7.00	5.40	3.70
15	7.50	5.40	0.00
16	8.00	5.60	3.57
17	8.50	5.70	1.75
18	9.00	5.80	1.72
19	9.50	5.90	1.69
20	10.00	6.00	1.67
21	10.50	6.10	1.64
22	11.00	6.20	1.61

BLANK VALUE = 6.2 micrograms carbon
BLANK FACTOR = 6.2 / 10.99982 = +5.6E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1024 TO 1039.

Sample Run By: Jackie Steele 4/30/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/30/96 Time: 09:33:56

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	2.00	95.00
3	1.50	7.30	72.60
4	2.00	13.00	43.85
5	2.50	16.50	21.21
6	3.00	18.40	10.33
7	3.50	20.00	8.00
8	4.00	21.10	5.21
9	4.50	22.10	4.52
10	5.00	22.80	3.07
11	5.50	23.90	4.60
12	6.00	24.30	1.65
13	6.50	24.80	2.02
14	7.00	25.20	1.59
15	7.50	25.60	1.56
16	8.00	25.80	0.78
17	8.50	26.10	1.15
18	9.00	26.40	1.14
19	9.50	26.80	1.49
20	10.00	27.10	1.11
21	10.50	27.30	0.73
22	11.00	27.50	0.73

BLANK VALUE = 27.5 micrograms carbon
BLANK FACTOR = 27.5 / 11.00067 = +2.50E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 04/30/96 Time: 09:46:55

Sample Size = 1 uL 1ml
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	36.30	99.45
3	1.51	201.70	82.00
4	2.00	372.10	45.79
5	2.50	492.30	24.42
6	3.00	556.20	11.49
7	3.50	586.20	5.12
8	4.00	598.40	2.04
9	4.50	602.70	0.71
10	5.00	604.30	0.26
11	5.50	604.90	0.10
12	6.00	605.30	0.07
13	6.50	605.60	0.05
14	7.00	605.90	0.05
15	7.50	606.20	0.05
16	8.00	606.40	0.03
17	8.50	606.60	0.03
18	9.00	606.80	0.03
19	9.50	607.00	0.03
20	10.00	607.20	0.03
21	10.50	607.30	0.02
22	11.00	607.50	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(607.5 - 6.159829)(1)/(1) = +6.013E+02 g/L Carbon
(607.5 - 6.159829)(1)/(1)(12) = +5.011E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

601.3 / 602 = 99.882

1026

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12E Date: 04/30/96 Time: 09:59:41

Sample Size = 1 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	8.50	97.65
3	1.51	109.00	92.20
4	2.01	351.00	68.95
5	2.51	503.60	30.30
6	3.00	553.30	8.98
7	3.50	568.10	2.61
8	4.00	572.10	0.70
9	4.50	573.80	0.30
10	5.00	574.90	0.19
11	5.50	575.70	0.14
12	6.00	576.70	0.17
13	6.50	577.40	0.12
14	7.00	578.10	0.12
15	7.50	578.50	0.07
16	8.00	579.00	0.09
17	8.50	579.40	0.07
18	9.00	579.80	0.07
19	9.50	580.20	0.07
20	10.00	580.40	0.03
21	10.50	580.70	0.05
22	11.00	580.90	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(580.9 - 27.4971)(1)/(1) = +5.534E+02 g/L Carbon
(580.9 - 27.4971)(1)/(1)(12) = +4.612E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele
JL STEELE 00000

$\frac{553.4}{.200ml} = 2767/3000 = 92.232$ 1027

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/30/96 Time: 10:12:26

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	2.00	80.00
3	1.50	2.80	28.57
4	2.00	3.20	12.50
5	2.50	3.40	5.88
6	3.00	3.60	5.56
7	3.50	3.70	2.70
8	4.00	3.90	5.13
9	4.50	4.00	2.50
10	5.00	4.20	4.76
11	5.50	4.30	2.33
12	6.00	4.40	2.27
13	6.50	4.60	4.35
14	7.00	4.70	2.13
15	7.50	4.80	2.08
16	8.00	4.90	2.04
17	8.50	5.00	2.00
18	9.00	5.20	3.85
19	9.50	5.30	1.89
20	10.00	5.40	1.85
21	10.50	5.60	3.57
22	11.00	5.70	1.75

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(5.7 - 6.159317)(1)/(1) = < 5.00 E-3 g/L Carbon
(5.7 - 6.159317)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

|5.70-6.20| = .5

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/30/96 Time: 10:28:54

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.90	89.47
3	1.51	6.90	72.46
4	2.01	12.60	45.24
5	2.51	16.50	23.64
6	3.01	18.80	12.23
7	3.50	20.30	7.39
8	4.00	21.20	4.25
9	4.50	22.00	3.64
10	5.00	22.70	3.08
11	5.50	23.00	1.30
12	6.00	23.50	2.13
13	6.50	23.90	1.67
14	7.00	24.10	0.83
15	7.50	24.40	1.23
16	8.00	24.70	1.21
17	8.50	24.90	0.80
18	9.00	25.10	0.80
19	9.50	25.30	0.79
20	10.00	25.50	0.78
21	10.50	25.70	0.78
22	11.00	25.90	0.77

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(25.9 - 27.49924)(1)/(1) = < 5.00 E-3 g/L Carbon
(25.9 - 27.49924)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

/ 25.90 - 27.50 / = 1.6

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001544 Date: 04/30/96 Time: 12:03:07

Sample Size = 1 uL .1990g
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	371.00	99.92
3	1.51	1117.50	66.80
4	2.00	1863.80	40.04
5	2.50	2610.80	28.61
6	3.00	3358.00	22.25
7	3.50	4104.80	18.19
8	4.00	4388.70	6.47
9	4.50	4397.10	0.19
10	5.00	4401.00	0.09
11	5.50	4403.80	0.06
12	6.00	4406.10	0.05
13	6.50	4407.90	0.04
14	7.00	4409.60	0.04
15	7.50	4411.00	0.03
16	8.00	4412.10	0.02
17	8.50	4413.20	0.02
18	9.00	4414.20	0.02
19	9.50	4415.10	0.02
20	10.00	4415.90	0.02
21	10.50	4416.60	0.02
22	11.00	4417.40	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(4417.4 - 6.159795)(1)/(1) = +4.4112E+03 g/L Carbon
(4417.4 - 6.159795)(1)/(1)(12) = +3.6760E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{4411.2}{.1990g} = 2.2167E4$

1030

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-183, REV. 0

Sample: S96T001544 Date: 04/30/96 Time: 12:15:12

Sample Size = 1 uL .1990g
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	38.50	97.40
3	1.51	142.40	72.96
4	2.00	263.60	45.98
5	2.50	329.80	20.07
6	3.00	357.20	7.67
7	3.50	368.50	3.07
8	4.00	375.20	1.79
9	4.50	380.30	1.34
10	5.00	384.20	1.02
11	5.50	387.20	0.77
12	6.00	389.30	0.54
13	6.50	391.00	0.43
14	7.00	392.60	0.41
15	7.50	394.00	0.36
16	8.00	395.40	0.35
17	8.50	396.30	0.23
18	9.00	397.30	0.25
19	9.50	398.10	0.20
20	10.00	398.70	0.15
21	10.50	399.40	0.18
22	11.00	400.00	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(400 - 27.49969)(1)/(1) = +3.725E+02 g/L Carbon
(400 - 27.49969)(1)/(1)(12) = +3.104E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{372.5}{.1990g} = 1.872^{E3}$

1031

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1544 DUP Date: 04/30/96 Time: 12:28:22

Sample Size = 1 uL .2368g
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.50	0.00
2	1.01	414.70	99.64
3	1.51	1161.80	64.31
4	2.01	1908.70	39.13
5	2.50	2654.90	28.11
6	3.00	3402.00	21.96
7	3.50	4148.60	18.00
8	4.00	4895.50	15.26
9	4.50	5231.20	6.42
10	5.00	5241.40	0.19
11	5.50	5245.50	0.08
12	6.00	5248.80	0.06
13	6.50	5251.60	0.05
14	7.00	5254.00	0.05
15	7.50	5256.00	0.04
16	8.00	5257.80	0.03
17	8.50	5259.20	0.03
18	9.00	5260.80	0.03
19	9.50	5261.90	0.02
20	10.00	5263.10	0.02
21	10.50	5264.00	0.02
22	11.00	5265.10	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(5265.1 - 6.15935)(1)/(1) = +5.2589E+03 g/L Carbon
(5265.1 - 6.15935)(1)/(1)(12) = +4.3825E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{5258.9}{.2368g} = 2.2208^{E4}$ **1032**

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1544 DUP Date: 04/30/96 Time: 12:40:19

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	13.00	91.54
3	1.50	100.50	87.06
4	2.00	229.40	56.19
5	2.50	311.40	26.33
6	3.00	345.30	9.82
7	3.50	357.60	3.44
8	4.00	363.60	1.65
9	4.50	367.30	1.01
10	5.00	370.10	0.76
11	5.50	372.30	0.59
12	6.00	374.00	0.45
13	6.50	375.30	0.35
14	7.00	376.40	0.29
15	7.50	377.30	0.24
16	8.00	378.20	0.24
17	8.50	378.90	0.18
18	9.00	379.70	0.21
19	9.50	380.30	0.16
20	10.00	380.80	0.13
21	10.50	381.30	0.13
22	11.00	381.80	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(381.8 - 27.49908)(1)/(1) = +3.543E+02 g/L Carbon
(381.8 - 27.49908)(1)/(1)(12) = +2.953E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele
JL STEELE 00000

$\frac{354.3}{.2368g} = 1.496^{E3}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-183, REV. 0

Sample: 1544 SPIKE Date: 04/30/96 Time: 12:56:03

Sample Size = 1 uL .1559 JS 4/30/96 0.1559g + .500ml 22N12A
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.90	0.00
2	1.01	282.40	98.97
3	1.51	1028.70	72.55
4	2.00	1775.70	42.07
5	2.50	2522.80	29.61
6	3.00	3269.40	22.84
7	3.50	3673.90	11.01
8	4.00	3728.00	1.45
9	4.50	3746.30	0.49
10	5.00	3754.20	0.21
11	5.50	3758.90	0.13
12	6.00	3762.80	0.10
13	6.50	3766.10	0.09
14	7.00	3768.80	0.07
15	7.50	3771.20	0.06
16	8.00	3773.20	0.05
17	8.50	3775.00	0.05
18	9.00	3776.40	0.04
19	9.50	3777.50	0.03
20	10.00	3778.50	0.03
21	10.50	3779.40	0.02
22	11.00	3780.20	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(3780.2 - 6.160376)(1)/(1) = +3.7740E+03 g/L Carbon
(3780.2 - 6.160376)(1)/(1)(12) = +3.1450E+02 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$$\frac{3780.20}{\frac{4417.40}{.1990} \times .1559 + 300} = \frac{3780.20}{3760.67} = 100.52\%$$

1034

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0 WHC-SD-WM-DP-183, REV. 0

Sample: 1544 SPIKE Date: 04/30/96 Time: 13:16:37

Sample Size = 1 uL .1559g + .100 ml 16N12E
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	34.30	97.08
3	1.51	162.40	78.88
4	2.01	373.50	56.52
5	2.50	484.80	22.96
6	3.00	533.10	9.06
7	3.50	549.80	3.04
8	4.00	555.50	1.03
9	4.50	558.50	0.54
10	5.00	560.80	0.41
11	5.50	562.60	0.32
12	6.00	564.20	0.28
13	6.50	565.40	0.21
14	7.00	566.30	0.16
15	7.50	567.30	0.18
16	8.00	568.10	0.14
17	8.50	568.80	0.12
18	9.00	569.40	0.11
19	9.50	570.00	0.11
20	10.00	570.70	0.12
21	10.50	571.20	0.09
22	11.00	571.70	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(571.7 - 27.49725)(1)/(1) = +5.442E+02 g/L Carbon
(571.7 - 27.49725)(1)/(1)(12) = +4.535E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele
JL STEELE 00000

$$\frac{571.70}{\frac{400.00}{.1990} \times .1559 + 300} = \frac{571.70}{613.37} = 93.21\%$$

1035

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-183, REV. 0

Sample: S96T001526 Date: 04/30/96 Time: 13:39:12

Sample Size = 1 uL . 0168
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	21.60	98.61
3	1.51	122.60	82.38
4	2.00	223.10	45.05
5	2.50	299.20	25.43
6	3.00	347.60	13.92
7	3.50	372.00	6.56
8	4.00	381.30	2.44
9	4.50	384.30	0.78
10	5.00	386.10	0.47
11	5.50	387.10	0.26
12	6.00	388.00	0.23
13	6.50	388.90	0.23
14	7.00	389.60	0.18
15	7.50	390.30	0.18
16	8.00	390.90	0.15
17	8.50	391.40	0.13
18	9.00	392.00	0.15
19	9.50	392.50	0.13
20	10.00	392.80	0.08
21	10.50	393.20	0.10
22	11.00	393.50	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(393.5 - 6.160923)(1)/(1) = +3.873E+02 g/L Carbon
(393.5 - 6.160923)(1)/(1)(12) = +3.228E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{387.3}{.0168g} = 2.3054E4$

1036

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0 WHC-SD-WM-DP-183, REV. 0

Sample: S96T001526 Date: 04/30/96 Time: 13:57:22

Sample Size = 1 uL .0168g
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.70	0.00
2	1.01	360.80	98.97
3	1.51	717.50	49.71
4	2.00	843.50	14.94
5	2.50	905.30	6.83
6	3.00	939.60	3.65
7	3.50	959.70	2.09
8	4.00	974.00	1.47
9	4.50	985.80	1.20
10	5.00	995.60	0.98
11	5.50	1004.10	0.85
12	6.00	1011.20	0.70
13	6.50	1017.00	0.57
14	7.00	1022.00	0.49
15	7.50	1026.40	0.43
16	8.00	1030.10	0.36
17	8.50	1033.00	0.28
18	9.00	1035.80	0.27
19	9.50	1038.20	0.23
20	10.00	1040.10	0.18
21	10.50	1042.10	0.19
22	11.00	1043.60	0.14

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1043.6 - 27.49954)(1)/(1) = +1.0161E+03 g/L Carbon
(1043.6 - 27.49954)(1)/(1)(12) = +8.4675E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jerne Steele
JL STEELE 00000

$\frac{1016.1}{.0168g} = 6.048 \times 10^4$

1037

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
WHC-SD-WM-DP-183, REV. 0

Sample: 1526 DUP Date: 04/30/96 Time: 14:10:52

Sample Size = 1 uL ~~.0204g~~ JLS 4/30/96 JLS
Dil Factor = 1 ~~.0204g~~ WT=.0194g
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	22.90	99.13
3	1.50	146.20	84.34
4	2.00	277.90	47.39
5	2.50	373.80	25.66
6	3.00	436.90	14.44
7	3.50	472.20	7.48
8	4.00	487.20	3.08
9	4.50	491.90	0.96
10	5.00	493.70	0.36
11	5.50	494.70	0.20
12	6.00	495.60	0.18
13	6.50	496.30	0.14
14	7.00	497.00	0.14
15	7.50	497.70	0.14
16	8.00	498.30	0.12
17	8.50	498.80	0.10
18	9.00	499.40	0.12
19	9.50	500.00	0.12
20	10.00	500.40	0.08
21	10.50	501.00	0.12
22	11.00	501.40	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(501.4 - 6.158325)(1)/(1) = +4.952E+02 g/L Carbon
(501.4 - 6.158325)(1)/(1)(12) = +4.127E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{495.2}{.0194g} = 2.5526^{E4}$

1038

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-183, REV. 0

Sample: 1526 DUP Date: 04/30/96 Time: 14:25:20

Sample Size = 1 uL .0194g
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.20	0.00
2	1.01	281.40	99.57
3	1.51	635.80	55.74
4	2.01	758.00	16.12
5	2.51	817.50	7.28
6	3.01	846.90	3.47
7	3.51	864.70	2.06
8	4.00	885.70	2.37
9	4.50	905.70	2.21
10	5.00	923.50	1.93
11	5.50	940.20	1.78
12	6.00	952.10	1.25
13	6.50	961.30	0.96
14	7.00	969.10	0.80
15	7.50	975.40	0.65
16	8.00	981.20	0.59
17	8.50	985.90	0.48
18	9.00	990.30	0.44
19	9.50	994.20	0.39
20	10.00	997.40	0.32
21	10.50	1000.60	0.32
22	11.00	1003.10	0.25

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1003.1 - 27.50168)(1)/(1) = +9.7560E+02 g/L Carbon
(1003.1 - 27.50168)(1)/(1)(12) = +8.1300E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele
JL STEELE 00000

$\frac{975.6}{.0194g} = 5.0289E4$

1039

LABCORE Completed Worklist Report for Worklist# 8139

Analyst: rws **Instrument:** TOC01 **Book#** 16N12E

Method: LA-344-105 Rev/Mod C-0 WHC-SD-WM-DP-183, REV

Worklist Comment: C-106 FOR TOC-01 RTS!

	Seq Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK			0	TOC-01	LIQUID	1	1.00E-1	0.100	ug/mL
2	STD			0	TOC-01	LIQUID	2.99E+03	2.99E+3	100.000	% Recovery
3	SAMPLE	S96T000544		0	TOC-01	LIQUID	N/A	2.07E+03	55.000	ug/mL
4	DUP	S96T000544		0	TOC-01	LIQUID	2.07E+3	2.02E+3	2.445	RPD
5	SPK	S96T000544		0	TOC-01	LIQUID	1.00E+02	1.00E+02	100.000	% Recovery
6	SAMPLE	S96T002025		0	TOC-01	LIQUID	N/A	1.95E+03	55.000	ug/mL
7	DUP	S96T002025		0	TOC-01	LIQUID	1.95E+3	1.95E+3	0.000	RPD
8	SPK	S96T002025		0	TOC-01	LIQUID	1.00E+02	1.03E+02	103.000	% Recovery
9	SAMPLE	S96T001544		0	TOC-01	LIQUID	N/A	2.32E+03	55.000	ug/mL
10	DUP	S96T001544		0	TOC-01	LIQUID	2.32E+3	2.31E+3	0.432	RPD
11	SPK	S96T001544		0	TOC-01	LIQUID	1.00E+02	9.51E+01	95.100	% Recovery

Final page for worklist# 8139

Analyst Signature **Date** **Analyst Signature** **Date**

Robt W Schroeder 5/7/96
Reviewer Signature **Date**

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist# 8139

Analyst: Krm **Instrument:** TOC01 _____ **Book#** 16N12E

Method: LA-344-105 Rev/Mod CO

Worklist Comment: C-106 FOR TOC-01 RTS!

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				TOC-01	LIQUID		
2	STD				TOC-01	LIQUID		
3	SAMPLE	S96T000544	0		TOC-01	LIQUID	96000082	C-106 GRAB
		Analytes Requested: TOC-01						
4	DUP	S96T000544	0		TOC-01	LIQUID		
5	SPK	S96T000544	0		TOC-01	LIQUID		
6	SAMPLE	S96T002025	0		TOC-01	LIQUID	96000174	C-106 GRAB
		Analytes Requested: TOC-01						
7	DUP	S96T002025	0		TOC-01	LIQUID		
8	SPK	S96T002025	0		TOC-01	LIQUID		
9	SAMPLE	S96T001544	0		TOC-01	LIQUID	96000082	C-106 GRAB
		Analytes Requested: TOC-01						
10	DUP	S96T001544	0		TOC-01	LIQUID		
11	SPK	S96T001544	0		TOC-01	LIQUID		

Final page for worklist # 8139

See Attached Sheet for Signatures
Analyst Signature **Date**

RLHook 4-30-96
Analyst Signature **Date**

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 8139

Analyst: KRM **Instrument:** TOC01 **Book #** 16N12 E

Method: LA-344-105 Rev/Mod C-0

Worklist Comment: C-106 FOR TOC-01 RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-01	LIQUID	1		N/A	ug/mL
		2	STD				TOC-01	LIQUID			N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000544	0		TOC-01	LIQUID	N/A			ug/mL
96000082	C-106 GRAB	4	DUP	S96T000544	0		TOC-01	LIQUID			N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T000544	0		TOC-01	LIQUID			N/A	ug/mL
96000174	C-106 GRAB	6	SAMPLE	S96T002025	0		TOC-01	LIQUID	N/A			ug/mL
96000174	C-106 GRAB	7	DUP	S96T002025	0		TOC-01	LIQUID			N/A	ug/mL
96000174	C-106 GRAB	8	SPK	S96T002025	0		TOC-01	LIQUID			N/A	ug/mL
96000082	C-106 GRAB	9	SAMPLE	S96T001544	0		TOC-01	LIQUID	N/A			ug/mL
96000082	C-106 GRAB	10	DUP	S96T001544	0		TOC-01	LIQUID			N/A	ug/mL
96000082	C-106 GRAB	11	SPK	S96T001544	0		TOC-01	LIQUID			N/A	ug/mL

Final page for worklist # 8139

4-30-96

Analyst Signature **Date**

Analyst Signature **Date**

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE Date: 04/29/96 Time: 20:49:14

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BASE
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.90	77.78
3	1.51	1.60	43.75
4	2.00	2.20	27.27
5	2.50	2.60	15.38
6	3.00	2.90	10.34
7	3.51	3.40	14.71
8	4.01	3.70	8.11
9	4.50	4.10	9.76
10	5.00	4.40	6.82
11	5.50	4.80	8.33
12	6.00	5.20	7.69
13	6.50	5.50	5.45
14	7.00	5.80	5.17

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1043 TO 1054.

Sample Run By: 4-30-96
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-183, REV. 0

Sample: BLK Date: 04/29/96 Time: 21:11:51

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.90	66.67
3	1.51	1.70	47.06
4	2.01	2.10	19.05
5	2.51	2.60	19.23
6	3.01	2.90	10.34
7	3.51	3.40	14.71
8	4.00	3.70	8.11
9	4.50	4.00	7.50
10	5.00	4.40	9.09
11	5.50	4.80	8.33
12	6.00	5.10	5.88
13	6.50	5.50	7.27
14	7.00	5.90	6.78

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(5.9 - 5.799899)(1)/(200) = < 5.00 E-3 g/L Carbon
(5.9 - 5.799899)(1)/(200)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 04/29/96 Time: 21:20:52

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	17.50	93.71
3	1.51	44.50	60.67
4	2.01	50.20	11.35
5	2.51	53.20	5.64
6	3.01	54.70	2.74
7	3.51	56.20	2.67
8	4.00	57.00	1.40
9	4.50	57.90	1.55
10	5.00	58.40	0.86
11	5.50	58.80	0.68
12	6.00	59.30	0.84
13	6.50	59.70	0.67
14	7.00	60.10	0.67

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(60.1 - 5.800708)(11)/(200) = +2.99E+00 g/L Carbon
(60.1 - 5.800708)(11)/(200)(12) = +2.49E-01 Molar Carbon

Sample Run By: KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T544 Date: 04/29/96 Time: 21:37:32

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	17.40	92.53
3	1.51	31.70	45.11
4	2.00	35.00	9.43
5	2.50	36.80	4.89
6	3.01	38.40	4.17
7	3.51	39.30	2.29
8	4.01	40.30	2.48
9	4.50	40.90	1.47
10	5.00	41.50	1.45
11	5.50	42.00	1.19
12	6.00	42.50	1.18
13	6.50	42.90	0.93
14	7.00	43.40	1.15

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(43.4 - 5.8)(11)/(200) = +2.07E+00 g/L Carbon
(43.4 - 5.8)(11)/(200)(12) = +1.72E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T544DUP Date: 04/29/96 Time: 23:45:20

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.70	0.00
2	1.01	28.40	90.49
3	1.51	34.10	16.72
4	2.00	36.50	6.58
5	2.50	38.10	4.20
6	3.00	38.80	1.80
7	3.50	39.60	2.02
8	4.00	40.00	1.00
9	4.50	40.50	1.23
10	5.00	41.00	1.22
11	5.50	41.40	0.97
12	6.00	41.80	0.96
13	6.50	42.30	1.18
14	7.00	42.50	0.47

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(42.5 - 5.8)(11)/(200) = +2.02E+00 g/L Carbon
(42.5 - 5.8)(11)/(200)(12) = +1.68E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T544SPK Date: 04/30/96 Time: 00:19:00

Sample Size = 200 uL
Dil Factor = 22
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	4.90	0.00
2	1.01	67.30	92.72
3	1.51	82.30	18.23
4	2.01	87.90	6.37
5	2.51	91.40	3.83
6	3.01	93.50	2.25
7	3.51	94.80	1.37
8	4.01	95.90	1.15
9	4.51	96.80	0.93
10	5.01	97.40	0.62
11	5.51	98.10	0.71
12	6.01	98.50	0.41
13	6.51	99.00	0.51
14	7.00	99.40	0.40

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(99.4 - 5.800768)(22)/(200) = +1.03E+01 g/L Carbon
(99.4 - 5.800768)(22)/(200)(12) = +8.58E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T2025 Date: 04/29/96 Time: 21:49:36

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	15.80	91.77
3	1.51	29.80	46.98
4	2.01	32.80	9.15
5	2.51	34.80	5.75
6	3.01	36.20	3.87
7	3.51	37.00	2.16
8	4.01	38.00	2.63
9	4.51	38.60	1.55
10	5.01	39.20	1.53
11	5.51	39.80	1.51
12	6.01	40.40	1.49
13	6.50	40.70	0.74
14	7.00	41.20	1.21

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(41.2 - 5.800708)(11)/(200) = +1.95E+00 g/L Carbon
(41.2 - 5.800708)(11)/(200)(12) = +1.62E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T2025DUP Date: 04/29/96 Time: 23:57:27

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.20	0.00
2	1.01	26.70	91.76
3	1.51	32.50	17.85
4	2.00	34.90	6.88
5	2.50	36.40	4.12
6	3.00	37.20	2.15
7	3.50	37.80	1.59
8	4.00	38.40	1.56
9	4.50	38.90	1.29
10	5.00	39.50	1.52
11	5.50	39.90	1.00
12	6.00	40.30	0.99
13	6.50	40.70	0.98
14	7.00	41.20	1.21

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(41.2 - 5.799293)(11)/(200) = +1.95E+00 g/L Carbon
(41.2 - 5.799293)(11)/(200)(12) = +1.62E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T2025SPK Date: 04/30/96 Time: 00:51:53

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	4.60	0.00
2	1.01	68.80	93.31
3	1.51	82.80	16.91
4	2.00	88.70	6.65
5	2.50	92.00	3.59
6	3.00	94.10	2.23
7	3.50	95.50	1.47
8	4.00	96.40	0.93
9	4.50	97.20	0.82
10	5.00	97.90	0.72
11	5.50	98.60	0.71
12	6.00	99.10	0.50
13	6.50	99.60	0.50
14	7.00	100.20	0.60

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(100.2 - 5.800079)(11)/(200) = +5.192E+00 g/L Carbon
(100.2 - 5.800079)(11)/(200)(12) = +4.327E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1544 Date: 04/29/96 Time: 21:29:32

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.01	18.80	92.55
3	1.51	35.50	47.04
4	2.01	39.20	9.44
5	2.51	41.50	5.54
6	3.01	43.00	3.49
7	3.51	44.20	2.71
8	4.01	45.00	1.78
9	4.51	45.60	1.32
10	5.01	46.20	1.30
11	5.51	46.60	0.86
12	6.00	47.10	1.06
13	6.51	47.60	1.05
14	7.00	48.00	0.83

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(48 - 5.8)(11)/(200) = +2.32E+00 g/L Carbon
(48 - 5.8)(11)/(200)(12) = +1.93E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1544DUP Date: 04/29/96 Time: 23:37:25

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.20	0.00
2	1.01	32.20	90.06
3	1.51	38.60	16.58
4	2.00	41.50	6.99
5	2.50	43.00	3.49
6	3.00	44.20	2.71
7	3.50	44.70	1.12
8	4.00	45.40	1.54
9	4.50	45.80	0.87
10	5.00	46.20	0.87
11	5.50	46.70	1.07
12	6.00	47.00	0.64
13	6.50	47.40	0.84
14	7.00	47.80	0.84

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(47.8 - 5.799293)(11)/(200) = +2.31E+00 g/L Carbon
(47.8 - 5.799293)(11)/(200)(12) = +1.93E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1544SPK Date: 04/30/96 Time: 00:06:12

Sample Size = 200 uL
Dil Factor = 22
Blank ID # = BASE
Blank Value = .8281093 ug/minute C

Analyst : KR MONTEITH
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.10	0.00
2	1.01	68.60	95.48
3	%-1438.49	80.80	15.10
4	%-1437.99	86.10	6.16
5	%-1437.49	89.70	4.01
6	%-1436.99	91.60	2.07
7	%-1436.49	93.20	1.72
8	%-1435.99	94.50	1.38
9	%-1435.49	95.30	0.84
10	%-1434.99	95.90	0.63
11	%-1434.49	96.60	0.72
12	%-1434.00	97.10	0.51
13	%-1433.50	97.60	0.51
14	%-1433.00	98.00	0.41

BLANK VALUE = 5.8 micrograms carbon
BLANK FACTOR = 5.8 / 7.003906 = +8.3E-01 ug/min Carbon

SAMPLE RESULTS:
(98 --1186.677)(22)/(200) = +1.41E+02 g/L Carbon
(98 --1186.677)(22)/(200)(12) = +1.18E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

WORKBOOK PAGE: BLANK1

TOC : LA-344-105 (C-0) LIQUIDS

			BLNK
	Sample Volume in mL	(SS)	0.200
BLNK	H2SO4 Volume in mL	(VR)	0.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	1.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Blank	(C1)	5.9
	µg of Carbon from Baseline	(C2)	5.8
LIQUID			
96003987	µg of Carbon = |C1-C2|		
0	Method Detection Limit (µg/mL) = 1 µg C * DF * DDF / VI		
N/A			
BLANK			
TOC-01			
RTS			
RWS			
krm			
04/30/96			
04/30/96			
	Method Detection Limit in µg/mL		5.00E+00
	µg of Carbon		1.00E-01
C-106 GRAB			

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RWS	Date:	5/2/96

BLANK.WB1 REV 2.0 344105ML

WORKBOOK PAGE: STD2

TOC : LA-344-105 (C-0) **LIQUIDS**

			STD
[illegible]	Sample Volume in mL	(SS)	0.200
STD	H2SO4 Volume in mL	(VR)	2.000
[illegible]	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
[illegible]	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon Found	(C1)	60.1
[illegible]	µg of Carbon from Baseline	(C2)	5.8
LIQUID	Standard Book Number		16N12E
[illegible]	Standard Value (µg/ml)		2990
96003987			
[illegible]			
0	µg of Carbon/mL = (C1-C2) * DF * DDF / VI		
[illegible]			
N/A	Method Detection Limit (µg/mL) = 1 µg C * DF * DDF / VI		
[illegible]			
[illegible]			
TOC-01			
[illegible]			
RTS			
[illegible]			
RWS			
[illegible]			
krm			
[illegible]			
04/30/96			
[illegible]			
04/30/96			
[illegible]	Method Detection Limit in µg/mL		5.50E+01
	QC Actual in µg/mL		2.99E+03
[illegible]	QC Found in µg/mL		2.99E+03
C-106 GRAB	Percent Standard Recovery		99.9

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RWS [illegible]	Date:	5/2/96

STANDARD.WB1 REV 2.0 344105ML

WORKBOOK PAGE: SAM3

TOC : LA-344-105 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	43.4
	µg of Carbon from Baseline	(C2)	5.8
LIQUID			
96003987			
	µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)		
0			
	Method Detection Limit = 1 µg C * DF * DDF / VI		
N/A			
S96T000544			
TOC-01			
RTS			
RWS			
krm			
04/30/96			
04/30/96			
	Method Detection Limit in µg/mL		5.50E+01
	µg of Carbon/mL		2.07E+03
C-106 GRAB			

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: DUP4

TOC : LA-344-105 (C-0) LIQUIDS

			DUP
	Sample Volume in mL	(SS)	0.200
DUP	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	42.5
	µg of Carbon from Baseline	(C2)	5.8
LIQUID	Result from Sample Page		2.07E+3

96003987

µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)

0

Method Detection Limit = 1 µg C * DF * DDF / VI

N/A

RPD (of Sample and Dup Results) = | Difference | / Average

S96T000544

TOC-01

RTS

RWS

krm

04/30/96

04/30/96

	Method Detection Limit in µg/mL	5.50E+01
	µg of Carbon/mL	2.02E+03
C-106 GRAB	RPD (of Sam and Dup Results)	2.5%

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: SPIKE5

TOC : LA-344-105 (C-0) LIQUIDS

SPIKE

	Sample Vial Data		Spiked Vial Data	
SPK	Sample Volume in mL (SS)	0.200	Was the sample dilution used? (yes/no)	YES
	H2SO4 Volume in mL (VR)	2.000	Sample Volume in mL (SPK SS)	0.400
8139	Volume Injected in mL (VI)	0.200	H2SO4 Volume in mL (SPK VR)	0.000
	µg of Carbon in Sample (C1)	43.4	Amount of Spike Std. in mL (SPK VOL)	0.400
TOC-01	µg of Carbon from Baseline (C2)	5.8	Volume Injected in mL (SPK VI)	0.200
			µg C in Sample + Spike (C3)	99.4
LIQUID			Pre-Spike Dilution Factor (PDF)	11.00
			Spike Book Number	11N12H
96003987			Spike Value in µg/ml	748

0

N/A

S96T000544

TOC-01

RTS

RWS

krm

04/30/96

04/30/96

C-106 GRAB

Spike Correction Factor (SPK CF) = (SPK SS + SPK VOL + SPK VR) / SPK VI

Sample Correction Factor (SAM CF) = (SS + VR) / (VI)

Sample Size Correction Factor (SS CF) = (SPK SS) / (SS)

QC Actual in µg/mL = Spike Value (µg/mL)

QC Found in µg/mL = [(C3 - C2)(SPK CF) - (C1-C2)(SAM CF)(SS CF)/(PDF)] / (SPK VOL)

Percent Spike Recovery = (QC Found) / (QC Actual) * 100

QC Actual in µg/mL	7.48E+02
QC Found in µg/mL	7.48E+02
Percent Spike Recovery	100.0

RW Schroeder 5/2/96

WORKBOOK PAGE: SAM6

TOC : LA-344-105 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	41.2
	µg of Carbon from Baseline	(C2)	5.8
LIQUID			

96003987

0

µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)

N/A

Method Detection Limit = 1 µg C * DF * DDF / VI

S96T002025

TOC-01

RTS

RWS

krm

04/30/96

04/30/96

Method Detection Limit in µg/mL	5.50E+01
µg of Carbon/mL	1.95E+03

C-106 GRAB

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: DUP7

TOC : LA-344-105 (C-0) LIQUIDS

			DUP
	Sample Volume in mL	(SS)	0.200
DUP	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	41.2
	µg of Carbon from Baseline	(C2)	5.8
LIQUID	Result from Sample Page		1.95E+3

96003987

µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)

0

Method Detection Limit = 1 µg C * DF * DDF / VI

N/A

RPD (of Sample and Dup Results) = | Difference | / Average

S96T002025

TOC-01

RTS

RWS

krm

04/30/96

04/30/96

	Method Detection Limit in µg/mL	5.50E+01
	µg of Carbon/mL	1.95E+03
C-106 GRAB	RPD (of Sam and Dup Results)	0.2%

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: SPIKE8

TOC : LA-344-105 (C-0) LIQUIDS

SPIKE

	Sample Vial Data		Spiked Vial Data	
SPK	Sample Volume in mL (SS)	0.200	Was the sample dilution used? (yes/no)	YES
8139	H2SO4 Volume in mL (VR)	2.000	Sample Volume in mL (SPK SS)	0.400
TOC-01	Volume Injected in mL (VI)	0.200	H2SO4 Volume in mL (SPK VR)	0.000
LIQUID	µg of Carbon in Sample (C1)	41.2	Amount of Spike Std. in mL (SPK VOL)	0.400
96003987	µg of Carbon from Baseline (C2)	5.8	Volume Injected in mL (SPK VI)	0.200
0			µg C in Sample + Spike (C3)	100.2
N/A			Pre-Spike Dilution Factor (PDF)	11.00
S96T002025			Spike Book Number	11N12H
TOC-01			Spike Value in µg/ml	748
RTS				
RWS				
krm				
04/30/96				
04/30/96				
C-106 GRAB				

Spike Correction Factor (SPK CF) = (SPK SS + SPK VOL + SPK VR) / SPK VI

Sample Correction Factor (SAM CF) = (SS + VR) / (VI)

Sample Size Correction Factor (SS CF) = (SPK SS) / (SS)

QC Actual in µg/mL = Spike Value (µg/mL)

QC Found in µg/mL = [(C3 - C2)(SPK CF) - (C1-C2)(SAM CF)(SS CF)/(PDF)] / (SPK VOL)

Percent Spike Recovery = (QC Found) / (QC Actual) * 100

QC Actual in µg/mL	7.48E+02
QC Found in µg/mL	7.67E+02
Percent Spike Recovery	102.5

RW Schroeder 5/2/96

WORKBOOK PAGE: SAM9

TOC : LA-344-105 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	48
	µg of Carbon from Baseline	(C2)	5.8
LIQUID			
96003987			
	µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)		
0			
	Method Detection Limit = 1 µg C * DF * DDF / VI		
N/A			
S96T001544			
TOC-01			
RTS			
RWS			
krm			
04/30/96			
04/30/96			
	Method Detection Limit in µg/mL		5.50E+01
	µg of Carbon/mL		2.32E+03
C-106 GRAB			

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: DUP10

TOC : LA-344-105 (C-0) LIQUIDS

			DUP
	Sample Volume in mL	(SS)	0.200
DUP	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
8139	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	47.8
	µg of Carbon from Baseline	(C2)	5.8
LIQUID	Result from Sample Page		2.32E+3
96003987			
	µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)		
0			
	Method Detection Limit = 1 µg C * DF * DDF / VI		
N/A			
	RPD (of Sample and Dup Results) = | Difference | / Average		
S96T001544			
TOC-01			
RTS			
RWS			
krm			
04/30/96			
04/30/96			
	Method Detection Limit in µg/mL		5.50E+01
	µg of Carbon/mL		2.31E+03
C-106 GRAB	RPD (of Sam and Dup Results)		0.4%

Data Entered By:	RTS	Date:	04/30/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: SPIKE11

TOC : LA-344-105 (C-0) LIQUIDS

SPIKE

	Sample Vial Data		Spiked Vial Data	
SPK	Sample Volume in mL (SS)	0.200	Was the sample dilution used? (yes/no)	YES
8139	H2SO4 Volume in mL (VR)	2.000	Sample Volume in mL (SPK SS)	0.400
TOC-01	Volume Injected in mL (VI)	0.200	H2SO4 Volume in mL (SPK VR)	0.000
LIQUID	µg of Carbon in Sample (C1)	48	Amount of Spike Std. in mL (SPK VOL)	0.400
96003987	µg of Carbon from Baseline (C2)	5.8	Volume Injected in mL (SPK VI)	0.200
0			µg C in Sample + Spike (C3)	98
N/A			Pre-Spike Dilution Factor (PDF)	11.00
S96T001544			Spike Book Number	11N12H
TOC-01			Spike Value in µg/ml	748
RTS				
RWS				
krm				
04/30/96				
04/30/96				
C-106 GRAB				

Spike Correction Factor (SPK CF) = (SPK SS + SPK VOL + SPK VR) / SPK VI

Sample Correction Factor (SAM CF) = (SS + VR) / (VI)

Sample Size Correction Factor (SS CF) = (SPK SS) / (SS)

QC Actual in µg/mL = Spike Value (µg/mL)

QC Found in µg/mL = [(C3 - C2)(SPK CF) - (C1-C2)(SAM CF)(SS CF)/(PDF)] / (SPK VOL)

Percent Spike Recovery = (QC Found) / (QC Actual) * 100

QC Actual in µg/mL	7.48E+02
QC Found in µg/mL	7.11E+02
Percent Spike Recovery	95.1

RW Schroeder 5/2/96

worklistrpt Version 2.1 05/15/95
05/15/96 09:36

LABCORE Data Entry Template for Worklist# 8665

Analyst: SLH **Instrument:** CARB2 _____ **Book #** 16N12E

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106 S8,S14 WET SDG FOR TOC-01 (HOT SAMPLES) RUSH RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT	
		1 BLNK				TOC-02	SOLID	1	8.3	N/A	ug/g	
		2 STD				TOC-02	SOLID	3.00E3	2.86E3	N/A	ug/g	
96000174	C-106 GRAB	3 SAMPLE	S96T001551	0		TOC-02	SOLID	N/A	2.97E4	~~5.00~~ 40.0	ug/g	RWS 5/15/96
96000174	C-106 GRAB	4 DUP	S96T001551	0		TOC-02	SOLID	2.97E4	2.85E4	N/A	ug/g	
96000174	C-106 GRAB	5 SPK	S96T001551	0		TOC-02	SOLID	100	82	N/A	ug/g	
96000082	C-106 GRAB	6 SAMPLE	S96T000854	0		TOC-02	SOLID	N/A	1.34E4	40.0	ug/g	RWS 5/15/96
96000082	C-106 GRAB	7 DUP	S96T000854	0		TOC-02	SOLID	1.34E4	9.32E3	N/A	ug/g	
96000082	C-106 GRAB	8 TRIPL	S96T000854	0		TOC-02	SOLID	~~9.32E3~~ 1.34E4	9.76E3	N/A	ug/g	

Final page for worklist # 8665

See Attached Sheet
Analyst Signature **Date**

RLStock 5-15-96
Analyst Signature **Date**

Report # 14239
14240

Approved RWSchmech 5/15/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

May. 15. 1996 9:55AM WHC 222S LAB ROOM 2F BACKSIDE No. 0900 P. 21

worklistrpt Version 2.1 05/15/95
05/14/96 14:34

LABCORE Data Entry Template for Worklist# 8665

Analyst: SLH **Instrument:** CARB2 **Book #** TOC 16N12-E

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: C-106 S8,S14 WET SDG FOR TOC-01 (HOT SAMPLES) RUSH RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK				TOC-02	SOLID			N/A	ug/g
		2 STD				TOC-02	SOLID			N/A	ug/g
96000082	C-106 GRAB	3 SAMPLE	S96T000854	0		TOC-02	SOLID	N/A			ug/g
96000082	C-106 GRAB	4 DUP	S96T000854	0		TOC-02	SOLID			N/A	ug/g
96000082	C-106 GRAB	5 SPK	S96T000854	0		TOC-02	SOLID			N/A	ug/g
96000174	C-106 GRAB	6 SAMPLE	S96T001551	0		TOC-02	SOLID	N/A			ug/g
96000174	C-106 GRAB	7 DUP	S96T001551	0		TOC-02	SOLID			N/A	ug/g

Final page for worklist # 8665

Sandra Hood Beatright
Analyst Signature **Date** 5-15-96

Analyst Signature **Date**

Change spike to 1551 Add trip to 854

Batch 96000835

Data Entry Comments: Spike done on sample S96T001551

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

May. 15. 1996 9:54AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 20

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 05/14/96 Time: 21:41:59

Sample Size = 200 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.50	86.67
3	1.50	40.80	96.32
4	2.00	208.80	80.46
5	2.50	400.30	47.84
6	3.00	512.90	21.95
7	3.50	562.20	8.77
8	4.00	580.50	3.15
9	4.50	587.00	1.11
10	5.00	589.50	0.42
11	5.50	590.70	0.20
12	6.00	591.70	0.17
13	6.50	592.40	0.12
14	7.00	593.10	0.12
15	7.50	593.60	0.08
16	8.00	594.10	0.08
17	8.50	594.60	0.08
18	9.00	595.10	0.08
19	9.50	595.50	0.07
20	10.00	595.80	0.05
21	10.50	596.20	0.07
22	11.00	596.40	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(596.4 - 23.76369)(1)/(200) = +2.863E+00 g/L Carbon
(596.4 - 23.76369)(1)/(200)(12) = +2.386E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1068 TO 1085.

Sample Run By: Sandra A Hood Beatright
SL HOOD 00000

1068

286.3 JDS / .200 ml 572.64 / .200 ml = 2863.18 / .23 = 95.44%

May. 15. 1996 9:53AM WHC 222S LAB ROOM 2F BACKSIDE No. U9U6 P. 15

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 05/14/96 Time: 21:27:43

Sample Size = 1000 uL 1.0 ml
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	3.30	90.91
3	1.50	57.30	94.24
4	2.01	193.00	70.31
5	2.51	341.60	43.50
6	3.01	451.70	24.37
7	3.50	524.30	13.85
8	4.00	564.60	7.14
9	4.50	584.80	3.45
10	5.00	594.00	1.55
11	5.50	597.60	0.60
12	6.00	599.50	0.32
13	6.50	600.30	0.13
14	7.00	600.90	0.10
15	7.50	601.30	0.07
16	8.00	601.70	0.07
17	8.50	602.00	0.05
18	9.00	602.20	0.03
19	9.50	602.50	0.05
20	10.00	602.80	0.05
21	10.50	602.90	0.02
22	11.00	603.10	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(603.1 - 8.910495)(1)/(1000) = +5.942E-01 g/L Carbon
(603.1 - 8.910495)(1)/(1000)(12) = +4.952E-02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

$\frac{594.2}{602} = 98.702$

May. 15. 1996 9:53AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 16

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 05/14/96 Time: 19:49:27

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.00	80.00
3	1.51	2.70	62.96
4	2.00	3.70	27.03
5	2.50	4.30	13.95
6	3.00	4.70	8.51
7	3.50	5.20	9.62
8	4.00	5.40	3.70
9	4.50	5.70	5.26
10	5.00	6.00	5.00
11	5.50	6.20	3.23
12	6.00	6.50	4.62
13	6.50	6.70	2.99
14	7.00	7.00	4.29
15	7.50	7.20	2.78
16	8.00	7.50	4.00
17	8.50	7.70	2.60
18	9.00	8.00	3.75
19	9.50	8.20	2.44
20	10.00	8.50	3.53
21	10.50	8.70	2.30
22	11.00	8.90	2.25

BLANK VALUE = 8.9 micrograms carbon
BLANK FACTOR = 8.9 / 10.99988 = +8.1E-01 ug/min Carbon

Sample Run By: _____
SL HOOD 00000

May. 15. 1996 9:54AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 18

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 05/14/96 Time: 21:12:11

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.90	66.67
3	1.51	3.80	76.32
4	2.00	8.90	57.30
5	2.50	13.70	35.04
6	3.00	16.20	15.43
7	3.50	17.50	7.43
8	4.00	18.00	2.78
9	4.50	18.30	1.64
10	5.00	18.50	1.08
11	5.50	18.80	1.60
12	6.00	19.20	2.08
13	6.50	19.50	1.54
14	7.00	19.70	1.02
15	7.50	20.50	3.90
16	8.00	21.30	3.76
17	8.50	21.90	2.74
18	9.00	22.40	2.23
19	9.50	22.80	1.75
20	10.00	23.10	1.30
21	10.50	23.50	1.70
22	11.00	23.80	1.26

BLANK VALUE = 23.8 micrograms carbon
BLANK FACTOR = 23.8 / 10.99878 = +2.16E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

May 15 1996 9:53AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 17

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 05/14/96 Time: 21:54:52

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	1.10	72.73
3	1.50	2.20	50.00
4	2.00	3.10	29.03
5	2.50	3.60	13.89
6	3.00	4.00	10.00
7	3.50	4.30	6.98
8	4.00	4.50	4.44
9	4.50	4.70	4.26
10	5.00	4.90	4.08
11	5.50	5.10	3.92
12	6.00	5.20	1.92
13	6.50	5.40	3.70
14	7.00	5.60	3.57
15	7.50	5.80	3.45
16	8.00	5.90	1.69
17	8.50	6.10	3.28
18	9.00	6.30	3.17
19	9.50	6.40	1.56
20	10.00	6.60	3.03
21	10.50	6.70	1.49
22	11.00	6.90	2.90

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(6.9 - 8.90822)(1)/(1) = < 5.00 E-3 g/L Carbon
(6.9 - 8.90822)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
SL HOOD 00000

1072

/ 6.90 − 8.90 / = 2

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 05/14/96 Time: 22:09:49

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.20	0.00
2	1.01	1.10	81.82
3	1.51	6.00	81.67
4	2.00	14.70	59.18
5	2.50	21.70	32.26
6	3.00	24.70	12.15
7	3.50	26.40	6.44
8	4.00	27.50	4.00
9	4.50	28.10	2.14
10	5.00	28.70	2.09
11	5.50	29.20	1.71
12	6.00	29.60	1.35
13	6.50	29.90	1.00
14	7.00	30.30	1.32
15	7.50	30.50	0.66
16	8.00	30.80	0.97
17	8.50	31.10	0.96
18	9.00	31.30	0.64
19	9.50	31.50	0.63
20	10.00	31.70	0.63
21	10.50	31.90	0.63
22	11.00	32.10	0.62

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(32.1 - 23.75763)(1)/(1) = +8.34E+00 g/L Carbon
(32.1 - 23.75763)(1)/(1)(12) = +6.95E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

|32.10 - 23.8| = 8.3

May. 15. 1996 9:52AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 13

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01551 Date: 05/14/96 Time: 22:26:13

Sample Size = 1 uL .1581g
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	10.10	98.02
3	1.51	472.30	97.86
4	2.00	1215.00	61.13
5	2.50	1703.50	28.68
6	3.00	1992.40	14.50
7	3.50	2169.00	8.14
8	4.00	2279.40	4.84
9	4.50	2342.50	2.69
10	5.00	2377.40	1.47
11	5.50	2397.20	0.83
12	6.00	2408.40	0.47
13	6.50	2416.10	0.32
14	7.00	2421.40	0.22
15	7.50	2425.40	0.16
16	8.00	2428.90	0.14
17	8.50	2432.00	0.13
18	9.00	2434.90	0.12
19	9.50	2437.50	0.11
20	10.00	2439.60	0.09
21	10.50	2441.70	0.09
22	11.00	2443.40	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(2443.4 - 8.909902)(1)/(1) = +2.4345E+03 g/L Carbon
(2443.4 - 8.909902)(1)/(1)(12) = +2.0287E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

$\frac{2434.5}{.1581g} = 1.5398^{E4}$ 1074

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01551 Date: 05/14/96 Time: 22:42:06

Sample Size = 1 uL .1581g
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	746.70	0.00
2	1.01	1493.70	50.01
3	1.51	2240.70	33.34
4	2.00	2987.50	25.00
5	2.50	3734.60	20.00
6	3.00	4421.30	15.53
7	3.50	4483.30	1.38
8	4.00	4520.50	0.82
9	4.50	4550.90	0.67
10	5.00	4577.60	0.58
11	5.50	4599.80	0.48
12	6.00	4619.80	0.43
13	6.50	4637.60	0.38
14	7.00	4653.10	0.33
15	7.50	4667.10	0.30
16	8.00	4680.10	0.28
17	8.50	4690.70	0.23
18	9.00	4699.90	0.20
19	9.50	4707.50	0.16
20	10.00	4713.80	0.13
21	10.50	4719.00	0.11
22	11.00	4723.00	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(4723 - 23.76369)(1)/(1) = +4.6992E+03 g/L Carbon
(4723 - 23.76369)(1)/(1)(12) = +3.9160E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

1075

$\frac{4699.2}{.1581g} = 2.9722E4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01551 DUP Date: 05/14/96 Time: 23:05:10

Sample Size = 1 uL .1213g
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.00	0.00
2	1.01	9.30	78.49
3	1.50	322.20	97.11
4	2.00	943.80	65.86
5	2.50	1374.30	31.33
6	3.00	1618.50	15.09
7	3.50	1783.70	9.26
8	4.00	1896.90	5.97
9	4.50	1976.70	4.04
10	5.00	2031.80	2.71
11	5.50	2066.30	1.67
12	6.00	2087.60	1.02
13	6.50	2102.70	0.72
14	7.00	2114.30	0.55
15	7.50	2123.50	0.43
16	8.00	2131.30	0.37
17	8.50	2138.00	0.31
18	9.00	2143.90	0.28
19	9.50	2148.70	0.22
20	10.00	2153.60	0.23
21	10.50	2157.40	0.18
22	11.00	2160.90	0.16

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(2160.9 - 8.908418)(1)/(1) = +2.1520E+03 g/L Carbon
(2160.9 - 8.908418)(1)/(1)(12) = +1.7933E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

1076

$\frac{2152.0}{.1213g} = 1.7741E4$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01551 DUP Date: 05/14/96 Time: 23:19:38

Sample Size = 1 uL .1213g
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.70	0.00
2	1.01	205.70	99.17
3	1.51	950.00	78.35
4	2.01	1696.80	44.01
5	2.50	2443.40	30.56
6	3.00	3022.20	19.15
7	3.50	3118.20	3.08
8	4.00	3185.00	2.10
9	4.50	3230.00	1.39
10	5.00	3264.70	1.06
11	5.50	3294.00	0.89
12	6.00	3319.60	0.77
13	6.50	3342.40	0.68
14	7.00	3363.40	0.62
15	7.50	3383.00	0.58
16	8.00	3400.60	0.52
17	8.50	3417.40	0.49
18	9.00	3432.90	0.45
19	9.50	3447.60	0.43
20	10.00	3460.20	0.36
21	10.50	3472.70	0.36
22	11.00	3484.00	0.32

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(3484 - 23.75974)(1)/(1) = +3.4602E+03 g/L Carbon
(3484 - 23.75974)(1)/(1)(12) = +2.8835E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

$\frac{3460.2}{.1213g} = 2.8526E4$

1077

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01551 SPK Date: 05/14/96 Time: 23:43:09

Sample Size = 1 uL .1435g
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.30	0.00
2	1.01	10.20	67.65
3	1.51	352.50	97.11
4	2.00	1093.40	67.76
5	2.50	1819.20	39.90
6	3.00	2228.00	18.35
7	3.50	2466.50	9.67
8	4.00	2620.80	5.89
9	4.50	2722.70	3.74
10	5.00	2785.30	2.25
11	5.50	2820.70	1.26
12	6.00	2835.60	0.53
13	6.50	2842.70	0.25
14	7.00	2847.40	0.17
15	7.50	2851.40	0.14
16	8.00	2854.60	0.11
17	8.50	2857.70	0.11
18	9.00	2860.30	0.09
19	9.50	2862.50	0.08
20	10.00	2864.90	0.08
21	10.50	2866.70	0.06
22	11.00	2868.50	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(2868.5 - 8.909703)(1)/(1) = +2.8596E+03 g/L Carbon
(2868.5 - 8.909703)(1)/(1)(12) = +2.3830E+02 Molar Carbon

1078

Sample Run By: SL HOOD 00000

$\frac{2859.4}{.14359} = 1.9928E4$

$\frac{2868.50}{2443.4 \times .1435 + 300} = \frac{2468.50}{2517.76}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01551 SPK Date: 05/14/96 Time: 23:56:40

Sample Size = 1 uL .1435g
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.60	0.00
2	1.01	223.60	99.28
3	1.51	969.70	76.94
4	2.00	1716.60	43.51
5	2.50	2463.10	30.31
6	3.00	3137.50	21.49
7	3.50	3265.00	3.91
8	4.00	3344.40	2.37
9	4.50	3406.10	1.81
10	5.00	3455.00	1.42
11	5.50	3496.60	1.19
12	6.00	3532.80	1.02
13	6.50	3566.40	0.94
14	7.00	3596.80	0.85
15	7.50	3624.90	0.78
16	8.00	3650.40	0.70
17	8.50	3674.10	0.65
18	9.00	3696.10	0.60
19	9.50	3715.60	0.52
20	10.00	3733.80	0.49
21	10.50	3750.10	0.43
22	11.00	3764.90	0.39

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(3764.9 - 23.75974)(1)/(1) = +3.7411E+03 g/L Carbon
(3764.9 - 23.75974)(1)/(1)(12) = +3.1176E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{3741.1}{.1435g} = 2.6070E4$ 1079 $\frac{3764.90}{47220} = \frac{3764.90}{458685}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00854 Date: 05/15/96 Time: 00:10:37

Sample Size = 1 uL .0829
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	12.80	0.00
2	%-1438.99	24.10	46.89
3	%-1438.50	198.30	87.85
4	%-1438.00	624.20	68.23
5	%-1437.50	1003.90	37.82
6	%-1437.00	1249.20	19.64
7	%-1436.50	1438.60	13.17
8	%-1436.00	1571.50	8.46
9	%-1435.50	1657.30	5.18
10	%-1435.00	1713.90	3.30
11	%-1434.50	1746.60	1.87
12	%-1434.00	1761.00	0.82
13	%-1433.50	1766.60	0.32
14	%-1433.00	1770.20	0.20
15	%-1432.50	1773.10	0.16
16	%-1432.00	1775.60	0.14
17	%-1431.50	1777.70	0.12
18	%-1431.00	1779.50	0.10
19	%-1430.50	1781.30	0.10
20	%-1430.00	1782.70	0.08
21	%-1429.50	1784.10	0.08
22	%-1429.00	1785.40	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(1785.4 --1157.489)(1)/(1) = +2.9429E+03 g/L Carbon
(1785.4 --1157.489)(1)/(1)(12) = +2.4524E+02 Molar Carbon

Please Recalculate

Sample Run By: SL HOOD 00000

May. 15. 1996 9:50AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 6

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00854 Date: 05/15/96 Time: 01:14:26

Sample Size = 1 uL .0829g
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.00	25.60	94.92
3	1.50	206.30	87.59
4	2.00	426.40	51.62
5	2.51	599.10	28.83
6	3.01	721.20	16.93
7	3.50	808.70	10.82
8	4.00	873.80	7.45
9	4.50	922.80	5.31
10	5.00	959.50	3.82
11	5.50	987.00	2.79
12	6.00	1008.90	2.17
13	6.50	1026.60	1.72
14	7.00	1042.90	1.56
15	7.50	1057.90	1.42
16	8.00	1071.50	1.27
17	8.50	1083.70	1.13
18	9.00	1095.00	1.03
19	9.50	1106.00	0.99
20	10.00	1115.90	0.89
21	10.50	1125.30	0.84
22	11.00	1134.80	0.84

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(1134.8 - 23.7654)(1)/(1) = +1.1110E+03 g/L Carbon
(1134.8 - 23.7654)(1)/(1)(12) = +9.2586E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{1111.0}{.0829} = 1.3402E4$

1081

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00854 DUP Date: 05/15/96 Time: 01:31:37

Sample Size = 1 uL, 1478g
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.40	0.00
2	1.01	8.00	95.00
3	1.50	451.70	98.23
4	2.00	1198.00	62.30
5	2.50	1945.00	38.41
6	3.00	2660.40	26.89
7	3.50	2905.30	8.43
8	4.00	3035.90	4.30
9	4.50	3125.70	2.87
10	5.00	3180.70	1.73
11	5.50	3212.10	0.98
12	6.00	3226.00	0.43
13	6.50	3233.10	0.22
14	7.00	3237.90	0.15
15	7.50	3242.20	0.13
16	8.00	3245.80	0.11
17	8.50	3248.80	0.09
18	9.00	3251.80	0.09
19	9.50	3254.10	0.07
20	10.00	3256.10	0.06
21	10.50	3258.10	0.06
22	11.00	3260.00	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(3260 - 8.911211)(1)/(1) = +3.2511E+03 g/L Carbon
(3260 - 8.911211)(1)/(1)(12) = +2.7092E+02 Molar Carbon

Sample Run By: SL HOOD 00000

1082

$\frac{3251.1}{1478} = 2.1997E4$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00854 DUP Date: 05/15/96 Time: 01:46:43

Sample Size = 1 uL .1478g
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	39.60	97.22
3	1.50	260.80	84.82
4	2.00	501.90	48.04
5	2.50	685.50	26.78
6	3.00	816.30	16.02
7	3.50	912.40	10.53
8	4.00	988.30	7.68
9	4.50	1050.00	5.88
10	5.00	1102.00	4.72
11	5.50	1146.90	3.91
12	6.00	1186.40	3.33
13	6.50	1220.90	2.83
14	7.00	1250.80	2.39
15	7.50	1277.20	2.07
16	8.00	1300.20	1.77
17	8.50	1321.40	1.60
18	9.00	1340.30	1.41
19	9.50	1357.50	1.27
20	10.00	1373.70	1.18
21	10.50	1388.60	1.07
22	11.00	1402.00	0.96

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(1402 - 23.75532)(1)/(1) = +1.3782E+03 g/L Carbon
(1402 - 23.75532)(1)/(1)(12) = +1.1485E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

1083

$\frac{1378.2}{.1478g} = 9.325E3$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00854 TRP Date: 05/15/96 Time: 02:04:40

Sample Size = 1 uL .1038g
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.60	0.00
2	1.01	8.20	80.49
3	1.51	259.40	96.84
4	2.01	830.00	68.75
5	2.51	1320.90	37.16
6	3.01	1604.20	17.66
7	3.51	1779.30	9.84
8	4.01	1902.70	6.49
9	4.50	1993.70	4.56
10	5.00	2059.40	3.19
11	5.50	2104.50	2.14
12	6.00	2134.70	1.41
13	6.50	2153.20	0.86
14	7.00	2165.50	0.57
15	7.50	2175.90	0.48
16	8.00	2184.40	0.39
17	8.50	2190.10	0.26
18	9.00	2195.00	0.22
19	9.50	2199.90	0.22
20	10.00	2203.70	0.17
21	10.50	2207.00	0.15
22	11.00	2209.80	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 8.909011 micrograms carbon
BLANK FACTOR = 8.909011 / 10.99878 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(2209.8 - 8.910543)(1)/(1) = +2.2009E+03 g/L Carbon
(2209.8 - 8.910543)(1)/(1)(12) = +1.8341E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

1084

$\frac{2200.9}{.1038g} = 2.1203^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00854 TRP Date: 05/15/96 Time: 02:18:17

Sample Size = 1 uL .1038g
Dil Factor = 1
Blank ID # =
Blank Value = 2.16 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.20	0.00
2	1.01	46.70	95.29
3	1.50	228.50	79.56
4	2.00	400.80	42.99
5	2.50	522.90	23.35
6	3.00	612.20	14.59
7	3.50	682.80	10.34
8	4.00	742.00	7.98
9	4.50	791.50	6.25
10	5.00	832.00	4.87
11	5.50	866.50	3.98
12	6.00	893.80	3.05
13	6.50	917.50	2.58
14	7.00	937.90	2.18
15	7.50	955.40	1.83
16	8.00	971.10	1.62
17	8.50	985.30	1.44
18	9.00	997.80	1.25
19	9.50	1009.30	1.14
20	10.00	1019.50	1.00
21	10.50	1028.80	0.90
22	11.00	1037.00	0.79

USER INPUT BLANK VALUE
BLANK VALUE = 23.75736 micrograms carbon
BLANK FACTOR = 23.75736 / 10.99878 = +2.2E+00 ug/min Carbon

SAMPLE RESULTS:
(1037 - 23.76145)(1)/(1) = +1.0132E+03 g/L Carbon
(1037 - 23.76145)(1)/(1)(12) = +8.4437E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{1013.2}{.1038g} = 9.761E3$

May. 15. 1996 9:48AM WHC 222S LAB ROOM 2F BACKSIDE No. 0906 P. 1

THE FOLLOWING ANALYSES WERE RERUN AND INCLUDED IN THE DATA PACKAGE, BUT THE RESULTS HAVE NOT BEEN REPORTED IN THE FINAL SUMMARY REPORTS.

worktistrpt Version 2.1 05/15/95
03/06/96 11:45

LABCORE Data Entry Template for Worklist# 6209

Analyst: DBS **Instrument:** TOC01 _____ **Book #** 16N12-D

Method: LA-344-105 Rev/Mod C-0 Spk # 11N12-H

Worklist Comment: C-106 TOC-01. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-01	LIQUID	1	<5.00	N/A	ug/mL
		2	STD				TOC-01	LIQUID	2.99e3	2.91E03	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000538	0		TOC-01	LIQUID	N/A	3.36E03	5.50e1	ug/mL
96000082	C-106 GRAB	4	DUP	S96T000538	0		TOC-01	LIQUID	3.36E03	3.24E03	N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T000538	0		TOC-01	LIQUID	100	95.4	N/A	ug/mL

Final page for worklist # 6209

DB Suffin 3-8-96
Analyst Signature **Date**

[signature] 3-10-96
Analyst Signature **Date**

Reviewed RW Schneider 3/12/96

DATA NOT USED IN PACKAGE

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

				BLANK
	Sample Volume in mL		(SS)	0.200
BLANK	H2SO4 Volume in mL		(VR)	0.000
	Volume Injected in mL		(VI)	0.200
6209	Dilution Factor		(DF)	1
	Digest Dilution Factor		(DDF)	1
TOC-01	µg of Carbon in Sample		(C1)	2.5
	µg of Carbon in Blank		(C2)	2.2
LIQUID	g of Carbon/L	=	<	5.00E-03

BLNK

DGG

03/08/96

07:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{VI}$

DATA NOT USED IN PACKAGE

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	<	5.00E+00	DETECTION LEVEL in µg/mL
			5.00E+00

Data Entry by:		Date:	03/12/96
Approved by:	Rus Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			STANDARD
	Sample Volume in mL	(SS)	0.200
STANDARD	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6209	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	55.4
	µg of Carbon in Blank	(C2)	2.5
LIQUID	g of Carbon/L	=	2.91E+00

16N12D

DGG

03/08/96

07:30 PM

$$\text{g of Carbon/L} = \frac{(C1-C2) * DF * DDF}{VI * 1000}$$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

$$\text{Detection Level (µg/mL)} = \frac{1\ \mu g\ C * DF * DDF}{VI}$$

DATA NOT USED IN PACKAGE

µg Carbon/mL =	2.91E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:		Date:	03/12/96
Approved by:	RW Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			SAMPLE
	Sample Volume in mL	(SS)	0.200
SAMPLE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6209	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	63.6
	µg of Carbon in Blank	(C2)	2.5
LIQUID	g of Carbon/L	=	3.36E+00

S96T000538

DGG

03/08/96

07:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

DATA NOT USED IN PACKAGE

µg Carbon/mL =	3.36E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:		Date:	03/12/96
Approved by:	Rw Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			DUPLICATE
	Sample Volume in mL	(SS)	0.200
DUPLICATE	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6209	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	61.4
	µg of Carbon in Blank	(C2)	2.5
LIQUID	g of Carbon/L =		3.24E+00

S96T000538DUP

DGG

03/08/96

07:30 PM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

DATA NOT USED IN PACKAGE

µg Carbon/mL =	3.24E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:		Date:	03/12/96
Approved by:	Ron Schroeder	Date:	3/12/96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

TOC: LA-344-105 SPIKED SAMPLE

SPIKE

	>>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400
	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.400
6209	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
	µg of Carbon in Sample	63.6	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	2.5	Sample Pre-Spike Dil. Factor (PDF)	11
			Spike Value (µg/ml)	748
LIQUID			µg C in Sample + Spike	104.4
			µg C in Blank	2.5
S96T000538				
TOC01				
DG GRIFFIN				
03/08/96				
09:37 PM				

PERCENT SPIKE RE = $\frac{\text{µg Carbon Recovered from Spike} * 100}{\text{µg Carbon in Spike}}$

WHERE : µg Carbon Recovered from Spike =

[(µgC in sample + spike - µgC in blank) * (Spike Correction Factor)]

- [(µgC sample - µgC blank) * (Sample Correction Factor) * (Sample Size Correction Factor) * (PDF)]

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

DATA NOT USED IN PACKAGE

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : µg Carbon in Spike = Spike Value (µg/mL) * Spike Volume (mL)

Percent Spike Recovery 95.4%

Data Entry by:		Date: 10-Mar-96
Approved by:	RW Schroeder	Date: 3/12/96

Form X Rev. 1.1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/08/96 Time: 19:20:38

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.60	66.67
3	1.51	1.00	40.00
4	2.01	1.20	16.67
5	2.51	1.30	7.69
6	3.00	1.50	13.33
7	3.50	1.60	6.25
8	4.00	1.80	11.11
9	4.50	1.90	5.26
10	5.00	2.00	5.00
11	5.50	2.10	4.76
12	6.00	2.20	4.55
13	6.50	2.30	4.35
14	7.00	2.50	8.00

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 7.00293 = +3.6E-01 ug/ml Carbon

7/23/96
DATA NOT USED IN PACKAGE

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____ TO ____.

Sample Run By: Robert W Schroeder for DG Griffin 6/11/96
DG GRIFFIN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 03/08/96 Time: 19:29:28

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .3569934 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.40	75.00
3	1.51	0.80	50.00
4	2.01	1.00	20.00
5	2.51	1.10	9.09
6	3.01	1.30	15.38
7	3.51	1.40	7.14
8	4.00	1.50	6.67
9	4.50	1.70	11.76
10	5.00	1.70	0.00
11	5.50	1.90	10.53
12	6.00	2.00	5.00
13	6.50	2.10	4.76
14	7.00	2.20	4.55

DATA
NOT USED
IN PACKAGE

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 7.00293 = +3.6E-01 ug/min Carbon

SAMPLE RESULTS:
(2.2 - 2.500349)(1)/(200) = < 5.00 E-3 g/L Carbon
(2.2 - 2.500349)(1)/(200)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: LMCS STD. Date: 03/08/96 Time: 20:43:09

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .3569934 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	24.50	98.78
3	1.51	42.30	42.08
4	2.01	49.30	14.20
5	2.50	52.30	5.74
6	3.00	53.30	1.88
7	3.50	53.90	1.11
8	4.01	54.30	0.74
9	4.50	54.50	0.37
10	5.00	54.70	0.37
11	5.51	54.90	0.36
12	6.01	55.10	0.36
13	6.51	55.20	0.18
14	7.00	55.40	0.36

DATA
NOT USED
IN PACKAGE

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 7.00293 = +3.6E-01 ug/min Carbon

SAMPLE RESULTS:
(55.4 - 2.500349)(11)/(200) = +2.91E+00 g/L Carbon
(55.4 - 2.500349)(11)/(200)(12) = +2.42E-01 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538 Date: 03/08/96 Time: 21:26:45

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .3569934 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	24.80	97.58
3	1.51	43.20	42.59
4	2.01	50.40	14.29
5	2.50	53.80	6.32
6	3.00	56.00	3.93
7	3.50	57.40	2.44
8	4.00	58.70	2.21
9	4.50	59.60	1.51
10	5.00	60.50	1.49
11	5.50	61.30	1.31
12	6.00	62.10	1.29
13	6.50	62.90	1.27
14	7.00	63.60	1.10

DATA NOT USED IN PACKAGE

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 7.00293 = +3.6E-01 ug/min Carbon

SAMPLE RESULTS:
(63.6 - 2.499695)(11)/(200) = +3.36E+00 g/L Carbon
(63.6 - 2.499695)(11)/(200)(12) = +2.80E-01 Molar Carbon

Sample Run By: DG GRIFFIN 00000

.200 ~2.0 – .200

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538DUP Date: 03/08/96 Time: 21:17:48

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .3569934 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.70	0.00
2	1.01	28.70	97.56
3	1.51	44.10	34.92
4	2.01	50.00	11.80
5	2.51	53.10	5.84
6	3.01	55.10	3.63
7	3.51	56.30	2.13
8	4.01	57.30	1.75
9	4.50	58.10	1.38
10	5.00	58.90	1.36
11	5.50	59.50	1.01
12	6.00	60.20	1.16
13	6.50	60.80	0.99
14	7.00	61.40	0.98

DATA
NOT USED
IN PACKAGE

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 7.00293 = +3.6E-01 ug/min Carbon

SAMPLE RESULTS:
(61.4 - 2.500349)(11)/(200) = +3.24E+00 g/L Carbon
(61.4 - 2.500349)(11)/(200)(12) = +2.70E-01 Molar Carbon

Sample Run By: DG GRIFFIN 00000

.200 – 2.0 – .200

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000538SPK Date: 03/08/96 Time: 21:37:05

Sample Size = 200 uL
Dil Factor = 22
Blank ID # = BLK
Blank Value = .3569934 ug/minute C

Analyst : DG GRIFFIN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	41.70	97.84
3	1.51	74.50	44.03
4	2.01	86.00	13.37
5	2.51	92.20	6.72
6	3.01	95.50	3.46
7	3.51	97.80	2.35
8	4.00	99.10	1.31
9	4.50	100.40	1.29
10	5.00	101.30	0.89
11	5.50	102.20	0.88
12	6.00	103.00	0.78
13	6.51	103.60	0.58
14	7.00	104.40	0.77

DATA
NOT USED
IN PACKAGE

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 7.00293 = +3.6E-01 ug/min Carbon

SAMPLE RESULTS:
(104.4 - 2.500654)(22)/(200) = +1.121E+01 g/L Carbon
(104.4 - 2.500654)(22)/(200)(12) = +9.341E-01 Molar Carbon

Sample Run By: _____
DG GRIFFIN 00000

LABCORE Data Entry Template for Worklist# 6881

Analyst: RAW **Instrument:** TOC01 WB39937 **Book #** 16N12-D

Method: LA-344-105 Rev/Mod C-0 SPK-11N12-H

Worklist Comment: C-106 FB TOC. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-01	LIQUID	1	~~<5.00~~ 0.9 RWS 4-1-96	N/A	ug/mL
		2	STD				TOC-01	LIQUID	3.00e3	3.09e3	N/A	ug/mL
96000082	C-106 GRAB	3	SAMPLE	S96T000855	0		TOC-01	LIQUID	N/A	1.71e1	5.50	ug/mL
96000082	C-106 GRAB	4	DUP	S96T000855	0		TOC-01	LIQUID	1.71e1	1.43e1	N/A	ug/mL
96000082	C-106 GRAB	5	SPK	S96T000855	0		TOC-01	LIQUID	100	96.7	N/A	ug/mL

Final page for worklist # 6881

R. WENDLAND 3-26-96
Analyst Signature **Date**

RtStark 3/29/96
Analyst Signature **Date**

Reviewed & edited
RW Schroeder 4-1-96

DATA
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2.0ml sample + .200ml H_2SO_4

Data Entry Comments: ~~.200 (SAM) – 2ml H_2SO_4~~ RWS 4-1-96

.200 (SAM. DILUTE) – .200 (SPK)

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LETTER OF INSTRUCTION

ESTABLISH TEST PARAMETERS FOR SOLIDS DENSITY

Purpose of Instruction:
The purpose of this letter of instruction is to establish general guidance for conducting laboratory tests to improve accuracy and precision of density measurements made on solids. This letter of instruction meets the guidance criteria of WHC-CM-5-4; section 5.4 Revision 0.

Purpose of Testing:
Laboratory solids-density measurements made on waste tank core samples have been determined by the Retrieval/Pretreatment Programs to be unreliable or of insufficient quality to base decisions of significant risk. Laboratory data reports have included specific gravity results of less than 1.0 instead of the normal 1.3 to 1.5. Testing performed under this instruction will provide reliable measurement methodology.

Scope of Testing:
Measurement methodology for specific gravity is well documented; however, modifications are necessary to existing analytical procedures to produce reliable data. Modifications to be tested include replacement of displacement media, exclusion of interferences e.g. air, adaptations for use in the hotcell.

Discussions:
Existing procedures, LA-510-112 and LA-510-116, provide acceptable reliability for sample materials that are liquid and will conform to the shape of a container. The volume of solids with the exclusion of air and excess water can be measured from calibrated graduations on the container. However, if solids are sufficiently dry that they do not conform to the container or are of irregular shape, a displacement volume methodology is necessary. The procedure for dry solids is not adequate to meet customer requirements. This task is directed at improving the reliability of this displacement technology.

Issues to be considered include:
1. Replacement of Displacement fluid; a liquid that is insoluble in water, does not solubilize sample components.
2. Replacement of Displacement fluid; low volatility to reduce weight loss during measurement.
3. Minimize secondary mixed waste generation; Generated waste should not be dangerous or extremely hazardous under EPA listings.
4. Hotcell Operation; Methodology should be suitable for routine use in the hotcell if necessary. Must be suitable for use in radiological hood.
5. Maintain short analysis time; Extensive time can not be expended to gain precision or accuracy of measurement.

DATA NOT USE IN PACK

Criteria:
1. Specific gravity reproducibility of replicate measurements on a homogenized sample to be within +/- 5%, optimum goal of +/-1 % (relative).
2. Demonstrated performance on replicate analyses of actual samples within +/-10% precision, optimum goal of +/- 5% (relative)
3. Method must be usable in hotcell or hood operation.

Evaluation Criteria:
Beneficial use of the demonstrated methodology will be evaluated based on the following criteria:

Improvement Area	Measurement Method	Value Added
Reliability	Meets Precision Criteria (Stated Above)	1. Customer Satisfaction 2. 2 Hours/week reduction in reruns.
Secondary Waste	1. Generates no listed waste 2. Generates minimum mixed waste	1. Reduce cost by value of listed waste.
Usable in Hotcell if necessary	Review of method by hotcell personnel	Reduced Cost due to reduction of radiation exposure value.

Responsibilities:
Chemist:
The chemist, Analytical Operations, responsible for the method/procedure performance will be the lead authority for identifying specific tasks and directing the Technician in work scope. This responsibility will extend to identifying specific safety issues which arise during the coarse of testing.

Technician:
The technician, Process Chemistry Laboratory, will provide testing support identified by the chemist. This responsibility includes objective observations about utility and safety of technology, documentation of data, and suggesting areas necessary for testing.

Cost Account Package Administrator:
This individual will set up planning documentation, assist in management reviews, assist in coordinating special requirements

DATA NOT USED IN PACKAGE

and interfaces with other groups. Will review data generated and evaluate this performance against known customer requirements.

Schedule:
This task is expected to be completed during the month of April 1996 and no service from organizations outside Analytical Operations are expected to be required. Therefore a detailed schedule and interim milestones are not developed for this task.

DATA
NOT USED
IN PACKAGE

WHC-SD-WM-DP-183, REV. 0

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

				BLANK
	Sample Volume in mL		(SS)	0.200
BLANK	H2SO4 Volume in mL		(VR)	2.000
	Volume Injected in mL		(VI)	0.200
6881	Dilution Factor		(DF)	1
	Digest Dilution Factor		(DDF)	1
TOC-01	µg of Carbon in Sample		(C1)	4.3
	µg of Carbon in Blank		(C2)	3.4
LIQUID	g of Carbon/L	=	<	~~5.00E-03~~

0.9 RWS 4-1-96

BLANK

WB39937

R. WENDLAND

03/26/96

09:01 AM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{VI}$

$|4.3-3.4| = 0.9$

NOTE: Reported Result is Below Detection Level.

µg Carbon/mL =	RWS 4-1-96 ~~< 5.00E+00~~ 0.9 DATA NOT USED IN PACKAGE	DETECTION LEVEL in µg/mL
		5.00E+00

Data Entry by:	RTS	Date:	03/29/96
Approved by:	RWS	Date:	3/29/96

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			STANDARD
	Sample Volume in mL	(SS)	0.200
STANDARD	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
6881	Dilution Factor	(DF)	11
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	59.6
	µg of Carbon in Blank	(C2)	3.4
LIQUID	g of Carbon/L	=	3.09E+00

STD/16N12D

WB39937

R. WENDLAND

03/26/96

09:01 AM

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$

DATA NOT USED IN PACKAGE

µg Carbon/mL =	3.09E+03	DETECTION LEVEL in µg/mL
		5.50E+01

Data Entry by:	RJS	Date:	03/29/96
Approved by:	RWS	Date:	4-1-96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			Sample
	Sample Volume in mL	(SS)	2.000
Sample	H2SO4 Volume in mL	(VR)	0.200
	Volume Injected in mL	(VI)	0.200
6881	Dilution Factor	(DF)	1.1
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	6.5
	µg of Carbon in Blank	(C2)	3.4
Liquid	g of Carbon/L	=	1.71E-02
S96T000855			
WB39937			
RA Wendland			
03/26/96			

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{VI}$

DATA NOT USED IN PACKAGE

µg Carbon/mL =	1.71E+01	DETECTION LEVEL in µg/mL
		5.50E+00

Data Entry by:	RWS	Date:	04/01/96
Approved by:	RWS	Date:	4-1-96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

TOC : LA-344-105 (C-0) LIQUIDS

			Sample
	Sample Volume in mL	(SS)	2.000
Sample	H2SO4 Volume in mL	(VR)	0.200
	Volume Injected in mL	(VI)	0.200
6881	Dilution Factor	(DF)	1.1
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	6
	µg of Carbon in Blank	(C2)	3.4
Liquid	g of Carbon/L	=	1.43E-02

S96T000855-DUP

WB39937

RA Wendland

03/26/96

g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$

µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L

Detection Level (µg/mL) = $\frac{1 \text{ µg C} * DF * DDF}{VI}$

DATA NOT USED IN PACKAGE

µg Carbon/mL =	1.43E+01	DETECTION LEVEL in µg/mL
		5.50E+00

Data Entry by:	RWS	Date:	04/01/96
Approved by:	RWS	Date:	4-1-96

Form 344105_C Rev. 1.1

PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

TOC: LA-344-105 SPIKED SAMPLE

SPIKE

	>>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	2.000	Sample Size in mL (SS)	0.200
	H2SO4 Volume in mL	0.200	Spike Volume in mL	0.200
6881	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
	µg of Carbon in Sample	6.5	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	3.4	Sample Pre-Spike Dil. Factor (PDF)	1.1
			Spike Value (µg/ml)	748
Liquid			µg C in Sample + Spike	77.3
			µg C in Blank	3.4
S96T000855				
WB39937				
RA Wendland				
03/26/96				

PERCENT SPIKE RE = $\frac{\text{µg Carbon Recovered from Spike} * 100}{\text{µg Carbon in Spike}}$

WHERE : µg Carbon Recovered from Spike =

[(µgC in sample + spike - µgC in blank) * (Spike Correction Factor)]

- [(µgC sample - µgC blank) * (Sample Correction Factor) * (Sample Size Correction Factor) * (PDF)]

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

DATA NOT USED IN PACKAGE

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : µg Carbon in Spike = Spike Value (µg/mL) * Spike Volume (mL)

Percent Spike Recovery 96.7%

Data Entry by:	RWS	Date:	01-Apr-96
Approved by:	RWS	Date:	4-1-96

Form X Rev. 1.1

P^

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/26/96 Time: 08:47:21

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	1.00	70.00
3	1.51	1.60	37.50
4	2.01	2.10	23.81
5	2.51	2.40	12.50
6	3.01	2.80	14.29
7	3.51	3.40	17.65
8	4.00	3.60	5.56
9	4.50	4.00	10.00
10	5.00	4.30	6.98

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 5.004517 = +8.6E-01 ug/min CHECKED

DATA NOT USED IN PACKAGE

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES _____TO ____.

Sample Run By: RW Schroeder for RA Wendland 6/11/96
RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BASE Date: 03/26/96 Time: 08:54:52

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .8592239 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	0.70	57.14
3	1.51	1.00	30.00
4	2.01	1.50	33.33
5	2.51	1.80	16.67
6	3.01	2.00	10.00
7	3.51	2.60	23.08
8	4.01	2.80	7.14
9	4.51	3.00	6.67
10	5.01	3.40	11.76

DATA
NOT USED
IN PACKAGE

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 5.004517 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(3.4 - 4.300892)(1)/(200) = < 5.00 E-3 g/L Carbon
(3.4 - 4.300892)(1)/(200)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING- PERCENT DIFFERENCE EXCEEDS 10 PERCENT >>>>

Sample Run By: _____
RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 03/26/96 Time: 09:01:16

Sample Size = 200 uL
Dil Factor = 11
Blank ID # = BLK
Blank Value = .8592239 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	33.30	98.20
3	1.51	50.60	34.19
4	2.01	55.70	9.16
5	2.51	57.40	2.96
6	3.01	58.20	1.37
7	3.51	58.50	0.51
8	4.00	58.90	0.68
9	4.50	59.30	0.67
10	5.00	59.60	0.50

DATA NOT USED IN PACKAGE

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 5.004517 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(59.6 - 4.300105)(11)/(200) = +3.04E+00 g/L Carbon
(59.6 - 4.300105)(11)/(200)(12) = +2.53E-01 Molar Carbon

Sample Run By: R. Wendland 3-26-96
RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855 Date: 03/26/96 Time: 09:08:33

Sample Size = 200 uL
Dil Factor = 1.1
Blank ID # = BLK
Blank Value = .8592239 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	2.80	89.29
3	1.51	3.80	26.32
4	2.01	4.40	13.64
5	2.51	4.80	8.33
6	3.01	5.10	5.88
7	3.51	5.50	7.27
8	4.00	5.70	3.51
9	4.50	6.20	8.06
10	5.00	6.50	4.62

DATA NOT USED IN PACKAGE

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 5.004517 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(6.5 - 4.300105)(1.1)/(200) = +1.2E-02 g/L Carbon
(6.5 - 4.300105)(1.1)/(200)(12) = +1.0E-03 Molar Carbon

Sample Run By: RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855D Date: 03/26/96 Time: 09:14:16

Sample Size = 200 uL
Dil Factor = 1.1
Blank ID # = BLK
Blank Value = .8592239 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	1.80	83.33
3	1.50	2.90	37.93
4	2.01	3.60	19.44
5	2.51	4.30	16.28
6	3.01	4.40	2.27
7	3.51	4.80	8.33
8	4.00	5.10	5.88
9	4.50	5.60	8.93
10	5.00	6.00	6.67

DATA NOT USED IN PACKAGE

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 5.004517 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(6 - 4.300105)(1.1)/(200) = +9.3E-03 g/L Carbon
(6 - 4.300105)(1.1)/(200)(12) = +7.8E-04 Molar Carbon

Sample Run By: RA WENDLAND 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 855SPK Date: 03/26/96 Time: 09:19:51

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = .8592239 ug/minute C

Analyst : RA WENDLAND
Min Readings = 10
Max Readings = 10
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	33.80	98.82
3	1.51	61.10	44.68
4	2.01	69.30	11.83
5	2.51	72.90	4.94
6	3.01	74.60	2.28
7	3.51	75.80	1.58
8	4.01	76.50	0.92
9	4.50	76.90	0.52
10	5.00	77.30	0.52

DATA NOT USED IN PACKAGE

BLANK VALUE = 4.3 micrograms carbon
BLANK FACTOR = 4.3 / 5.004517 = +8.6E-01 ug/min Carbon

SAMPLE RESULTS:
(77.3 - 4.300158)(1)/(200) = +3.65E-01 g/L Carbon
(77.3 - 4.300158)(1)/(200)(12) = +3.04E-02 Molar Carbon

Sample Run By: _____
RA WENDLAND 00000

LABCORE Data Entry Template for Worklist# 7509

Analyst: Sds **Instrument:** TOC01 _____ **Book #** 16N12E 11N12H

Method: LA-344-105 Rev/Mod _____

Worklist Comment: C-106 FOR TOC-01 RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				TOC-01	LIQUID	1	1.30	N/A	ug/mL
		2	STD				TOC-01	LIQUID	2.99e3	2.80e3	N/A	ug/mL
96000174	C-106 GRAB	3	SAMPLE	S96T001681	0		TOC-01	LIQUID	N/A	2.06e3	5.50e1	ug/mL
96000174	C-106 GRAB	4	DUP	S96T001681	0		TOC-01	LIQUID	2.06e3	2.08e3	N/A	ug/mL
96000174	C-106 GRAB	5	SPK	S96T001681	0		TOC-01	LIQUID	100	96.3	N/A	ug/mL

Final page for worklist # 7509

Analyst Signature Date 4/27/96

Analyst Signature Date 4/28/96

Approved RW Schmeeckle 4/29/96

DATA NOT USED IN PACKAGE

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

WORKBOOK PAGE: BLANK1

TOC : LA-344-105 (C-0) LIQUIDS

			BLNK
BLNK	Sample Volume in mL	(SS)	2.000
	H2SO4 Volume in mL	(VR)	0.000
7509	Volume Injected in mL	(VI)	0.200
	Dilution Factor (calculated)	(DF)	1.000
TOC-01	Digest Dilution Factor	(DDF)	1
	µg of Carbon in Blank	(C1)	3.6
LIQUID	µg of Carbon from Baseline	(C2)	4.9

96003360

µg of Carbon = |C1-C2|

0

Method Detection Limit (µg/mL) = 1 µg C * DF * DDF / VI

N/A

TOC01

GJH

RWS

JDS

04/28/96

04/27/96

DATA
NOT USED
IN PACKAGE

Method Detection Limit in µg/mL	5.00E+00
µg of Carbon	1.30E+00

03:41 PM

C-106

Data Entered By:	GJH	Date:	04/28/96
Signature of Chemist:	RW Schroeder	Date:	4/29/96

BLANK.WB1 REV 2.0 344105ML

I:\344105\OUT\TOC7509.WB1 04/28/96 04:34:50

WORKBOOK PAGE: STD2

TOC : LA-344-105 (C-0) LIQUIDS

			STD
	Sample Volume in mL	(SS)	0.200
STD	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
7509	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon Found	(C1)	55.8
	µg of Carbon from Baseline	(C2)	4.9
LIQUID	Standard Book Number		16N12E
	Standard Value (µg/ml)		2990
96003360			
0	µg of Carbon/mL = (C1-C2) * DF * DDF / VI		
N/A	Method Detection Limit (µg/mL) = 1 µg C * DF * DDF / VI		
TOC01			
GJH			
RWS			
JDS			
04/28/96			
04/27/96			
	Method Detection Limit in µg/mL		5.50E+01
03:41 PM	QC Actual in µg/mL		2.99E+03
	QC Found in µg/mL		2.80E+03
C-106	Percent Standard Recovery		93.6

DATA NOT USED IN PACKAGE

Data Entered By:	GJH	Date:	04/28/96
Signature of Chemist:		Date:	4/29/96

STANDARD.WB1 REV 2.0 344105ML

I:\344105\OUT\TOC7509.WB1 04/28/96 04:37:14

WORKBOOK PAGE: SAM3

TOC : LA-344-105 (C-0) LIQUIDS

			SAMPLE
SAMPLE	Sample Volume in mL	(SS)	0.200
	H2SO4 Volume in mL	(VR)	2.000
7509	Volume Injected in mL	(VI)	0.200
	Dilution Factor (calculated)	(DF)	11.000
TOC-01	Digest Dilution Factor	(DDF)	1
	µg of Carbon in Sample	(C1)	42.4
LIQUID	µg of Carbon from Baseline	(C2)	4.9
96003360			
0			
N/A			
S96T001681			
TOC01			
GJH			
RWS			
JDS			
04/28/96			
04/27/96			
03:41 PM			
C-106			

µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)

Method Detection Limit = 1 µg C * DF * DDF / VI

DATA NOT USED IN PACKAGE

Method Detection Limit in µg/mL	5.50E+01
µg of Carbon/mL	2.06E+03

Data Entered By:	GJH	Date:	04/28/96
Signature of Chemist:	Rw Schroeder	Date:	4/29/96

SAMPLE.WB1 REV 2.0 344105ML

WORKBOOK PAGE: DUP4

TOC : LA-344-105 (C-0) LIQUIDS

			DUP
	Sample Volume in mL	(SS)	0.200
DUP	H2SO4 Volume in mL	(VR)	2.000
	Volume Injected in mL	(VI)	0.200
7509	Dilution Factor (calculated)	(DF)	11.000
	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	42.7
	µg of Carbon from Baseline	(C2)	4.9
LIQUID	Result from Sample Page		2.06E+3

96003360

µg of Carbon/g = (C1-C2) * DF * 1000 / (VI * D g/L)

0

Method Detection Limit = 1 µg C * DF * DDF / VI

N/A

RPD (of Sample and Dup Results) = | Difference | / Average

S96T001681

TOC01

GJH

RWS

JDS

04/28/96

DATA NOT USED IN PACKAGE

04/27/96

Method Detection Limit in µg/mL	5.50E+01

03:41 PM

µg of Carbon/mL	2.08E+03
RPD (of Sam and Dup Results)	0.9%

C-106

Data Entered By:	GJH	Date:	04/28/96
Signature of Chemist:	RW Schroeder	Date:	4/29/96

SAMPLE.WB1 REV 2.0 344105ML

I:\344105\OUT\TOC7509.WB1 04/28/96 04:39:22

A	A	B	C	D	E
1					
2	TOC : LA-344-105 (C-0)	LIQUIDS			SPIKE
3		Sample Vial Data		Spiked Vial Data	
4	SPIKE	Sample Volume in mL (SS)	0.200	Was the sample dilution used? (yes/no)	YES
5		H2SO4 Volume in mL (VR)	2.000	Sample Volume in mL (SPK SS)	0.400
6	7509	Volume Injected in mL (VI)	0.200	H2SO4 Volume in mL (SPK VR)	0.000
7		µg of Carbon in Sample (C1)	42.4	Amount of Spike Std. in mL (SPK VOL)	0.200
8	TOC-01	µg of Carbon from Baseline (C2)	4.9	Volume Injected in mL (SPK VI)	0.200
9				µg C in Sample + Spike (C3)	77.9
10	liquid			Pre-Spike Dilution Factor (PDF)	11.00
11				Spike Book Number	11N12H
12				Spike Value in µg/ml	748
13					
14	0	Spike Correction Factor (SPK CF) = (SPK SS + SPK VOL + SPK VR) / SPK VI			
15		Sample Correction Factor (SAM CF) = (SS + VR) / (VI)			
16		Sample Size Correction Factor (SS CF) = (SPK SS) / (SS)			
17					
18	S96T001681	QC Actual in µg/mL = Spike Value (µg/mL)			
19		QC Found in µg/mL = [(C3 - C2)(SPK CF) - (C1-C2)(SAM CF)(SS CF)/(PDF)] / (SPK VOL)			
20	TOC01	Percent Spike Recovery = (QC Found) / (QC Actual) * 100			
21					
22	RWS				
23					
24	RWS				
25					
26	JDS				
27					
28	04/29/96				
29					
30	04/27/96				
31					
32	03:41 PM	QC Actual in µg/mL			7.48E+02
33		QC Found in µg/mL			7.20E+02
34	C-106	Percent Spike Recovery			96.3
35					
36					
37					
38					
39					
40					
41	Data Entered By:	RWS		Date:	04/29/96
42	Signature of Chemist:	RW Schroeder		Date:	4/29/96
43	SPIKE.WB1 REV 2.0	344105ML			
44					
45					

WHC-SD-WM-DP-183, REV. 0

DATA NOT USED IN PACKAGE

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/27/96 Time: 10:30:13

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JD SPELLMAN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.70	42.86
3	1.51	1.00	30.00
4	2.01	1.40	28.57
5	2.51	1.70	17.65
6	3.01	2.20	22.73
7	3.51	2.60	15.38
8	4.01	2.90	10.34
9	4.50	3.20	9.37
10	5.00	3.60	11.11
11	5.50	3.90	7.69
12	6.00	4.30	9.30
13	6.50	4.60	6.52
14	7.00	4.90	6.12

DATA NOT USED IN PACKAGE
JAW 11/23/96

BLANK VALUE = 4.9 micrograms carbon
BLANK FACTOR = 4.9 / 7.002991 = +7.0E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES ____ TO ____.

Sample Run By: RW Schroeder for JD Spellman 6/11/96
JD SPELLMAN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLK Date: 04/27/96 Time: 12:05:10

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = .7 ug/minute C

Analyst : JD SPELLMAN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.50	60.00
3	1.51	0.70	28.57
4	2.01	1.00	30.00
5	2.51	1.30	23.08
6	3.01	1.50	13.33
7	3.51	1.80	16.67
8	4.00	2.10	14.29
9	4.50	2.40	12.50
10	5.00	2.60	7.69
11	5.50	2.80	7.14
12	6.00	3.10	9.68
13	6.50	3.30	6.06
14	7.00	3.60	8.33

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 4.902093 micrograms carbon
BLANK FACTOR = 4.902093 / 7.002991 = +7.0E-01 ug/min Carbon

SAMPLE RESULTS:
(3.6 - 4.902649)(1)/(200) = < 5.00 E-3 g/L Carbon
(3.6 - 4.902649)(1)/(200)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
JD SPELLMAN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 16N12E Date: 04/27/96 Time: 12:33:48

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = .7 ug/minute C

Analyst : JD SPELLMAN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.00	0.00
3	1.51	0.20	100.00
4	2.00	7.60	97.37
5	2.50	23.10	67.10
6	3.00	35.30	34.56
7	3.50	43.30	18.48
8	4.00	48.30	10.35
9	4.50	51.00	5.29
10	5.00	52.70	3.23
11	5.50	54.10	2.59
12	6.00	54.70	1.10
13	6.50	55.30	1.08
14	7.00	55.80	0.90

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 4.902093 micrograms carbon
BLANK FACTOR = 4.902093 / 7.002991 = +7.0E-01 ug/min Carbon

SAMPLE RESULTS:
(55.8 - 4.902777)(1)/(200) = +2.54E-01 g/L Carbon
(55.8 - 4.902777)(1)/(200)(12) = +2.12E-02 Molar Carbon

Sample Run By: _____
JD SPELLMAN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001681 Date: 04/27/96 Time: 15:21:22

Sample Size = 200 uL
Dil Factor = 11
Blank ID # =
Blank Value = .7 ug/minute C

Analyst : JD SPELLMAN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.10	100.00
3	1.51	7.40	98.65
4	2.01	20.70	64.25
5	2.51	28.60	27.62
6	3.01	33.10	13.60
7	3.51	35.90	7.80
8	4.01	37.80	5.03
9	4.51	39.80	5.03
10	5.01	40.50	1.73
11	5.51	41.10	1.46
12	6.01	41.60	1.20
13	6.50	42.20	1.42
14	7.00	42.40	0.47

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 4.902093 micrograms carbon
BLANK FACTOR = 4.902093 / 7.002991 = +7.0E-01 ug/min Carbon

SAMPLE RESULTS:
(42.4 - 4.903375)(11)/(200) = +2.06E+00 g/L Carbon
(42.4 - 4.903375)(11)/(200)(12) = +1.72E-01 Molar Carbon

Sample Run By: _____
JD SPELLMAN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001681DUP Date: 04/27/96 Time: 15:32:15

Sample Size = 200 uL
Dil Factor = 11
Blank ID # =
Blank Value = .7 ug/minute C

Analyst : JD SPELLMAN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.30	66.67
3	1.51	8.30	96.39
4	2.01	21.50	61.40
5	2.51	29.60	27.36
6	3.01	33.80	12.43
7	3.51	36.60	7.65
8	4.01	38.40	4.69
9	4.51	39.70	3.27
10	5.01	40.60	2.22
11	5.51	41.30	1.69
12	6.01	41.90	1.43
13	6.51	42.40	1.18
14	7.00	42.70	0.70

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 4.902093 micrograms carbon
BLANK FACTOR = 4.902093 / 7.002991 = +7.0E-01 ug/min Carbon

SAMPLE RESULTS:
(42.7 - 4.903375)(11)/(200) = +2.08E+00 g/L Carbon
(42.7 - 4.903375)(11)/(200)(12) = +1.73E-01 Molar Carbon

Sample Run By: JD SPELLMAN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001681SPK Date: 04/27/96 Time: 15:41:46

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = .7 ug/minute C

Analyst : JD SPELLMAN
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.40	75.00
3	1.51	15.50	97.42
4	2.00	42.60	63.62
5	2.50	54.00	21.11
6	3.00	61.70	12.48
7	3.50	66.80	7.63
8	4.00	70.20	4.84
9	4.50	72.70	3.44
10	5.00	74.40	2.28
11	5.50	75.70	1.72
12	6.00	76.70	1.30
13	6.50	77.50	1.03
14	7.00	77.90	0.51

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 4.902093 micrograms carbon
BLANK FACTOR = 4.902093 / 7.002991 = +7.0E-01 ug/min Carbon

SAMPLE RESULTS:
(77.9 - 4.902093)(1)/(200) = +3.65E-01 g/L Carbon
(77.9 - 4.902093)(1)/(200)(12) = +3.04E-02 Molar Carbon

Sample Run By: _____
JD SPELLMAN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..563 DUP Date: 04/15/96 Time: 02:34:25

Sample Size = 1 uL Analyst : PJ MCCOWN
Dil Factor = 1 Min Readings = 22
Blank ID # = Max Readings = 22
Blank Value = 2.58 ug/minute C % Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	21.20	98.58
3	1.51	94.30	77.52
4	2.00	166.10	43.23
5	2.51	211.10	21.32
6	3.01	231.10	8.65
7	3.51	239.10	3.35
8	4.01	242.40	1.36
9	4.50	244.70	0.94
10	5.00	246.20	0.61
11	5.50	247.50	0.53
12	6.00	248.70	0.48
13	6.50	249.60	0.36
14	7.00	250.90	0.52
15	7.50	251.80	0.36
16	8.00	252.70	0.36
17	8.50	253.40	0.28
18	9.00	254.20	0.31
19	9.50	255.00	0.31
20	10.00	255.50	0.20
21	10.50	256.10	0.23
22	11.00	256.70	0.23

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(256.7 - 28.37917)(1)/(1) = +2.283E+02 g/L Carbon
(256.7 - 28.37917)(1)/(1)(12) = +1.903E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1237g
.100mL 228/.100 = 2.28e3

1126

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..563 SAM Date: 04/15/96 Time: 01:52:09

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.58 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.00	29.60	96.28
3	1.50	103.20	71.32
4	2.00	175.50	41.20
5	2.50	217.40	19.27
6	3.00	235.00	7.49
7	3.50	242.60	3.13
8	4.00	246.10	1.42
9	4.50	249.00	1.16
10	5.00	251.10	0.84
11	5.50	253.80	1.06
12	6.00	255.40	0.63
13	6.50	256.60	0.47
14	7.00	257.60	0.39
15	7.50	258.50	0.35
16	8.00	259.30	0.31
17	8.50	260.10	0.31
18	9.00	260.70	0.23
19	9.50	261.40	0.27
20	10.00	262.10	0.27
21	10.50	262.70	0.23
22	11.00	263.30	0.23

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 28.38441 micrograms carbon
BLANK FACTOR = 28.38441 / 11.00171 = +2.6E+00 ug/min Carbon

SAMPLE RESULTS:
(263.3 - 28.37915)(1)/(1) = +2.349E+02 g/L Carbon
(263.3 - 28.37915)(1)/(1)(12) = +1.958E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown
PJ MCCOWN 00000

.1215g
.100mL

235/.100 = 2.35e3

1127

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..563 SAM Date: 04/15/96 Time: 01:38:19

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.01	450.80	99.69
3	1.50	1197.10	62.34
4	2.00	1944.10	38.42
5	2.50	2486.60	21.82
6	3.00	2532.20	1.80
7	3.50	2547.30	0.59
8	4.00	2552.30	0.20
9	4.50	2555.40	0.12
10	5.00	2557.00	0.06
11	5.50	2558.70	0.07
12	6.00	2560.20	0.06
13	6.50	2561.70	0.06
14	7.00	2563.20	0.06
15	7.50	2564.70	0.06
16	8.00	2565.80	0.04
17	8.50	2566.90	0.04
18	9.00	2567.80	0.04
19	9.50	2568.70	0.04
20	10.00	2569.50	0.03
21	10.50	2570.10	0.02
22	11.00	2570.90	0.03

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(2570.9 - 9.019725)(1)/(1) = +2.5619E+03 g/L Carbon
(2570.9 - 9.019725)(1)/(1)(12) = +2.1349E+02 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000

1128

.1215g
.100mL

2562/.100 = 2.56e4

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T..563 DUP Date: 04/15/96 Time: 02:08:57

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .82 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	1.70	0.00
2	1.01	442.00	99.62
3	1.50	1188.40	62.81
4	2.00	1935.30	38.59
5	2.50	2520.50	23.22
6	3.00	2572.50	2.02
7	3.50	2590.50	0.69
8	4.00	2596.70	0.24
9	4.50	2600.10	0.13
10	5.00	2601.80	0.07
11	5.50	2603.50	0.07
12	6.00	2604.70	0.05
13	6.50	2605.90	0.05
14	7.00	2606.90	0.04
15	7.50	2607.80	0.03
16	8.00	2608.60	0.03
17	8.50	2609.40	0.03
18	9.00	2610.10	0.03
19	9.50	2610.70	0.02
20	10.00	2611.40	0.03
21	10.50	2612.10	0.03
22	11.00	2612.70	0.02

DATA NOT USED IN PACKAGE

USER INPUT BLANK VALUE
BLANK VALUE = 9.021401 micrograms carbon
BLANK FACTOR = 9.021401 / 11.00171 = +8.2E-01 ug/min Carbon

SAMPLE RESULTS:
(2612.7 - 9.019725)(1)/(1) = +2.6037E+03 g/L Carbon
(2612.7 - 9.019725)(1)/(1)(12) = +2.1697E+02 Molar Carbon

Sample Run By: PJ McCown
PJ MCCOWN 00000
1129

.1237g
.100mL

2604/.100 = 2.60e4

LABCORE Data Entry Template for Worklist# 5955

Analyst: KRM **Instrument:** CARB2 _____ **Book #** 22N12-A 16N12E

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: BY-106 @TICTOC1. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	LIQUID	1	.1	N/A	ug/mL
		1	BLNK				@TICTOC1 TOC-02	LIQUID	1	2.8	N/A	ug/mL
		2	STD				@TICTOC1 TIC-02	LIQUID		5.71E2	N/A	ug/mL
		2	STD				@TICTOC1 TOC-02	LIQUID	3.00E3	2.74E3	N/A	ug/mL
95000229	BY-106	3	SAMPLE	S96T000258	0		@TICTOC1 TIC-02	LIQUID	N/A	1.89E3		ug/mL
95000229	BY-106	3	SAMPLE	S96T000258	0		@TICTOC1 TOC-02	LIQUID	N/A	2.62E3		ug/mL
95000229	BY-106	4	DUP	S96T000258	0		@TICTOC1 TIC-02	LIQUID	1.89E5	1.84E3	N/A	ug/mL
95000229	BY-106	4	DUP	S96T000258	0		@TICTOC1 TOC-02	LIQUID	2.62E3	2.31E3	N/A	ug/mL
95000229	BY-106	5	SPK	S96T000258	0		@TICTOC1 TIC-02	LIQUID	100	103	N/A	ug/mL
95000229	BY-106	5	SPK	S96T000258	0		@TICTOC1 TOC-02	LIQUID	100	95.0	N/A	ug/mL
		6	BLNK				TOC-02	LIQUID	1	2.8	N/A	ug/mL
		7	STD				TOC-02	LIQUID	3.00E3	2.74E3	N/A	ug/mL
96000174	C-106 GRAB	8	SAMPLE	S96T001023	0		TOC-02	LIQUID	N/A	1.97E3		ug/mL
96000174	C-106 GRAB	9	DUP	S96T001023	0		TOC-02	LIQUID	1.97E3	2.09E3	N/A	ug/mL
96000174	C-106 GRAB	10	SPK	S96T001023	0		TOC-02	LIQUID	100	97.9	N/A	ug/mL

Final page for worklist # 5955

[signature] 3-31-96

RH Stark 4-1-96
Approved by
H Anastos 4-1-96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/31/96 Time: 22:13:43

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	1.40	100.00
3	1.50	2.00	30.00
4	2.00	2.40	16.67
5	2.50	2.80	14.29
6	3.00	3.20	12.50
7	3.50	3.20	0.00
8	4.00	3.60	11.11
9	4.50	3.60	0.00
10	5.00	3.90	7.69
11	5.50	4.20	7.14
12	6.00	4.30	2.33
13	6.50	4.50	4.44
14	7.00	4.90	8.16
15	7.50	4.90	0.00
16	8.00	5.20	5.77
17	8.50	5.40	3.70
18	9.00	5.50	1.82
19	9.50	5.80	5.17
20	10.00	6.00	3.33
21	10.50	6.20	3.23
22	11.00	6.40	3.13

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1131 TO 1143.

BLANK VALUE = 6.4 micrograms carbon
BLANK FACTOR = 6.4 / 10.99988 = +5.8E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES ____ TO ____.

Sample Run By: KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 03/31/96 Time: 22:27:09

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	3.30	100.00
3	1.50	9.10	63.74
4	2.00	13.30	31.58
5	2.50	16.30	18.40
6	3.01	17.70	7.91
7	3.50	19.10	7.33
8	4.00	19.50	2.05
9	4.50	20.30	3.94
10	5.00	21.00	3.33
11	5.50	21.30	1.41
12	6.00	21.70	1.84
13	6.50	22.00	1.36
14	7.00	22.60	2.65
15	7.50	23.10	2.16
16	8.00	23.50	1.70
17	8.50	23.90	1.67
18	9.00	24.20	1.24
19	9.50	24.50	1.22
20	10.00	24.80	1.21
21	10.50	25.00	0.80
22	11.00	25.30	1.19

BLANK VALUE = 25.3 micrograms carbon
BLANK FACTOR = 25.3 / 11.00061 = +2.30E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0 WHC-SD-WM-DP-183, REV. 0

Sample: STD Date: 03/31/96 Time: 22:43:14

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .58 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	38.30	99.22
3	1.51	198.30	80.69
4	2.00	361.90	45.21
5	2.50	471.10	23.18
6	3.00	530.20	11.15
7	3.50	556.90	4.79
8	4.00	567.50	1.87
9	4.50	571.60	0.72
10	5.00	573.50	0.33
11	5.50	574.10	0.10
12	6.00	574.60	0.09
13	6.50	575.00	0.07
14	7.00	575.50	0.09
15	7.50	575.90	0.07
16	8.00	575.90	0.00
17	8.50	576.40	0.09
18	9.00	576.70	0.05
19	9.50	576.90	0.03
20	10.00	577.10	0.03
21	10.50	577.50	0.07
22	11.00	577.60	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 6.380354 micrograms carbon
BLANK FACTOR = 6.380354 / 11.00061 = +5.8E-01 ug/min Carbon

SAMPLE RESULTS:
(577.6 - 6.379929)(1)/(1000) = +5.712E-01 g/L Carbon
(577.6 - 6.379929)(1)/(1000)(12) = +4.760E-02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0 WHC-SD-WM-DP-183, REV. 0

Sample: STD Date: 03/31/96 Time: 22:56:27

Sample Size = ~~200~~ 100 uL
Dil Factor = 1 3-31-96
Blank ID # =
Blank Value = 2.3 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.00	42.10	99.05
3	1.50	168.20	74.97
4	2.00	255.10	34.07
5	2.50	278.90	8.53
6	3.00	286.30	2.58
7	3.50	288.60	0.80
8	4.00	289.60	0.35
9	4.50	290.90	0.45
10	5.00	292.10	0.41
11	5.50	292.80	0.24
12	6.00	293.50	0.24
13	6.50	294.40	0.31
14	7.00	294.90	0.17
15	7.50	295.80	0.30
16	8.00	296.20	0.14
17	8.50	297.00	0.27
18	9.00	297.70	0.24
19	9.50	298.00	0.10
20	10.00	298.50	0.17
21	10.50	298.80	0.10
22	11.00	299.40	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 25.3014 micrograms carbon
BLANK FACTOR = 25.3014 / 11.00061 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(299.4 - 25.30084)(1)/~~(200)~~ 100 3-31-96 ~~+1.370E+00~~ 2.74 mO g/L Carbon
(299.4 - 25.30084)(1)/(200)(12) = +1.142E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: R BLK Date: 03/31/96 Time: 23:09:48

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .58 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.10	0.00
2	1.01	1.60	31.25
3	1.51	2.10	23.81
4	2.00	2.50	16.00
5	2.50	2.90	13.79
6	3.00	3.10	6.45
7	3.50	3.30	6.06
8	4.00	3.70	10.81
9	4.50	3.90	5.13
10	5.00	4.10	4.88
11	5.50	4.30	4.65
12	6.00	4.40	2.27
13	6.50	4.70	6.38
14	7.00	4.90	4.08
15	7.50	5.10	3.92
16	8.00	5.20	1.92
17	8.50	5.50	5.45
18	9.00	5.70	3.51
19	9.50	5.90	3.39
20	10.00	6.10	3.28
21	10.50	6.40	4.69
22	11.00	6.50	1.54

USER INPUT BLANK VALUE
BLANK VALUE = 6.380354 micrograms carbon
BLANK FACTOR = 6.380354 / 11.00061 = +5.8E-01 ug/min Carbon

SAMPLE RESULTS:
(6.5 - 6.378867)(1)/(1) = +1.2E-01 g/L Carbon
(6.5 - 6.378867)(1)/(1)(12) = +1.0E-02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: R BLK Date: 03/31/96 Time: 23:22:12

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.3 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	1.10	100.00
3	1.50	6.80	83.82
4	2.00	12.50	45.60
5	2.50	14.60	14.38
6	3.00	15.60	6.41
7	3.50	16.40	4.88
8	4.00	17.00	3.53
9	4.50	17.40	2.30
10	5.00	17.70	1.69
11	5.50	18.40	3.80
12	6.00	18.70	1.60
13	6.50	19.00	1.58
14	7.00	20.00	5.00
15	7.50	20.40	1.96
16	8.00	20.80	1.92
17	8.50	21.00	0.95
18	9.00	21.40	1.87
19	9.50	21.60	0.93
20	10.00	21.90	1.37
21	10.50	22.20	1.35
22	11.00	22.50	1.33

USER INPUT BLANK VALUE
BLANK VALUE = 25.3014 micrograms carbon
BLANK FACTOR = 25.3014 / 11.00061 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(22.5 - 25.29747)(1)/(1) = < 5.00 E-3 g/L Carbon
(22.5 - 25.29747)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1023 Date: 04/01/96 Time: 02:07:57

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .58 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	276.60	100.00
3	1.51	1023.50	72.98
4	2.00	1770.50	42.19
5	2.50	2314.00	23.49
6	3.00	2395.20	3.39
7	3.50	2426.30	1.28
8	4.00	2437.60	0.46
9	4.50	2442.50	0.20
10	5.00	2445.70	0.13
11	5.50	2448.20	0.10
12	6.00	2450.10	0.08
13	6.50	2451.30	0.05
14	7.00	2453.10	0.07
15	7.50	2454.00	0.04
16	8.00	2455.20	0.05
17	8.50	2456.00	0.03
18	9.00	2457.20	0.05
19	9.50	2458.00	0.03
20	10.00	2458.80	0.03
21	10.50	2459.40	0.02
22	11.00	2460.20	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 6.380354 micrograms carbon
BLANK FACTOR = 6.380354 / 11.00061 = +5.8E-01 ug/min Carbon

SAMPLE RESULTS:
(2460.2 - 6.379323)(1)/(1) = +2.4538E+03 g/L Carbon
(2460.2 - 6.379323)(1)/(1)(12) = +2.0449E+02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1023 Date: 04/01/96 Time: 02:20:10

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.3 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.00	45.80	98.03
3	1.50	119.10	61.54
4	2.00	171.50	30.55
5	2.50	195.90	12.46
6	3.00	204.80	4.35
7	3.50	208.50	1.77
8	4.00	210.50	0.95
9	4.50	212.20	0.80
10	5.00	213.30	0.52
11	5.50	214.50	0.56
12	6.00	215.30	0.37
13	6.50	216.20	0.42
14	7.00	217.30	0.51
15	7.50	218.30	0.46
16	8.00	219.10	0.37
17	8.50	219.80	0.32
18	9.00	220.50	0.32
19	9.50	220.90	0.18
20	10.00	221.50	0.27
21	10.50	222.00	0.23
22	11.00	222.40	0.18

USER INPUT BLANK VALUE
BLANK VALUE = 25.3014 micrograms carbon
BLANK FACTOR = 25.3014 / 11.00061 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(222.4 - 25.29498)(1)/(1) = +1.971E+02 g/L Carbon
(222.4 - 25.29498)(1)/(1)(12) = +1.643E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

1138

$\frac{197.1}{.1} = 1.97E^{3}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1023 Date: 04/01/96 Time: 02:36:02

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .58 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.50	0.00
2	1.01	151.70	99.01
3	1.50	898.10	83.11
4	2.00	1645.20	45.41
5	2.50	2250.80	26.91
6	3.00	2336.20	3.66
7	3.50	2368.60	1.37
8	4.00	2381.80	0.55
9	4.50	2386.60	0.20
10	5.00	2389.30	0.11
11	5.50	2391.60	0.10
12	6.00	2394.20	0.11
13	6.50	2395.60	0.06
14	7.00	2397.10	0.06
15	7.50	2398.70	0.07
16	8.00	2399.90	0.05
17	8.50	2401.10	0.05
18	9.00	2402.20	0.05
19	9.50	2403.20	0.04
20	10.00	2403.60	0.02
21	10.50	2404.60	0.04
22	11.00	2405.20	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 6.380354 micrograms carbon
BLANK FACTOR = 6.380354 / 11.00061 = +5.8E-01 ug/min Carbon

SAMPLE RESULTS:
(2405.2 - 6.379902)(1)/(1) = +2.3988E+03 g/L Carbon
(2405.2 - 6.379902)(1)/(1)(12) = +1.9990E+02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1023 Date: 04/01/96 Time: 02:48:08

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.3 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	39.40	98.98
3	1.50	118.20	66.67
4	2.00	170.70	30.76
5	2.50	194.70	12.33
6	3.00	203.50	4.32
7	3.50	207.60	1.97
8	4.00	210.30	1.28
9	4.50	211.40	0.52
10	5.00	216.00	2.13
11	5.50	220.00	1.82
12	6.00	223.20	1.43
13	6.50	225.40	0.98
14	7.00	227.70	1.01
15	7.50	229.00	0.57
16	8.00	230.00	0.43
17	8.50	230.70	0.30
18	9.00	231.60	0.39
19	9.50	232.20	0.26
20	10.00	232.90	0.30
21	10.50	233.30	0.17
22	11.00	233.90	0.26

USER INPUT BLANK VALUE
BLANK VALUE = 25.3014 micrograms carbon
BLANK FACTOR = 25.3014 / 11.00061 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(233.9 - 25.30151)(1)/(1) = +2.086E+02 g/L Carbon
(233.9 - 25.30151)(1)/(1)(12) = +1.738E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
KR MONTEITH 00000

1140

$\frac{208.6}{.1} = 2.09E^{3}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1023 + SP Date: 04/01/96 Time: 03:01:49

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .58 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	310.80	99.97
3	1.51	1058.10	70.63
4	2.00	1804.80	41.37
5	2.50	2325.90	22.40
6	3.00	2406.00	3.33
7	3.50	2436.70	1.26
8	4.00	2447.60	0.45
9	4.50	2452.30	0.19
10	5.00	2454.80	0.10
11	5.50	2457.40	0.11
12	6.00	2459.20	0.07
13	6.50	2460.60	0.06
14	7.00	2461.70	0.04
15	7.50	2463.00	0.05
16	8.00	2464.20	0.05
17	8.50	2465.10	0.04
18	9.00	2466.30	0.05
19	9.50	2467.00	0.03
20	10.00	2467.80	0.03
21	10.50	2468.50	0.03
22	11.00	2469.10	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 6.380354 micrograms carbon
BLANK FACTOR = 6.380354 / 11.00061 = +5.8E-01 ug/min Carbon

SAMPLE RESULTS:
(2469.1 - 6.37884)(1)/(1) = +2.4627E+03 g/L Carbon
(2469.1 - 6.37884)(1)/(1)(12) = +2.0523E+02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T1023 + SP Date: 04/01/96 Time: 04:18:05

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.3 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.70	0.00
2	1.01	46.90	98.51
3	1.50	201.20	76.69
4	2.00	377.70	46.73
5	2.50	453.80	16.77
6	3.00	478.90	5.24
7	3.50	487.10	1.68
8	4.00	491.00	0.79
9	4.50	495.50	0.91
10	5.00	499.10	0.72
11	5.50	501.70	0.52
12	6.00	503.40	0.34
13	6.50	504.90	0.30
14	7.00	506.10	0.24
15	7.50	507.20	0.22
16	8.00	507.70	0.10
17	8.50	508.50	0.16
18	9.00	509.40	0.18
19	9.50	509.80	0.08
20	10.00	510.50	0.14
21	10.50	511.10	0.12
22	11.00	511.60	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 25.3014 micrograms carbon
BLANK FACTOR = 25.3014 / 11.00061 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(511.6 - 25.29502)(1)/(1) = +4.863E+02 g/L Carbon
(511.6 - 25.29502)(1)/(1)(12) = +4.053E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

5 11.6 Sample Run By: KR MONTEITH 00000

$\left[\left(\frac{222.4}{.1}\right)(.1) + 300\right]$ = 97.9 % Rec

LABCORE Data Entry Template for Worklist# 7392

Analyst: KRM **Instrument:** CARB2 **Book #** 22N12A 16N12E

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: C-106 SAMPLE IS DRY AND FLIGHTY,HIGH ALPHA USE CAUTION. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	0.8	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	3.1	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02E2	5.88E2	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00E3	2.76E3	N/A	ug/g
96000082	C-106 GRAB	3	SAMPLE	S96T000568	0		@TICTOC1 TIC-02	SOLID	N/A	2.93E4	5.00	ug/g
96000082	C-106 GRAB	3	SAMPLE	S96T000568	0		@TICTOC1 TOC-02	SOLID	N/A	2.04E4	40.0	ug/g
96000082	C-106 GRAB	4	DUP	S96T000568	0		@TICTOC1 TIC-02	SOLID	2.93E4	2.56E4	N/A	ug/g
96000082	C-106 GRAB	4	DUP	S96T000568	0		@TICTOC1 TOC-02	SOLID	2.04E4	2.49E4	N/A	ug/g
96000082	C-106 GRAB	5	SPK	S96T000568	0		@TICTOC1 TIC-02	SOLID	100	100	N/A	ug/g
96000082	C-106 GRAB	5	SPK	S96T000568	0		@TICTOC1 TOC-02	SOLID	100	87.9	N/A	ug/g
96000082	C-106 GRAB	6	SAMPLE	S96T000552	0		@TICTOC1 TIC-02	SOLID	N/A	2.56E4	5.00	ug/g
96000082	C-106 GRAB	6	SAMPLE	S96T000552	0		@TICTOC1 TOC-02	SOLID	N/A	2.47E4	40.0	ug/g
96000082	C-106 GRAB	7	DUP	S96T000552	0		@TICTOC1 TIC-02	SOLID	2.56E4	2.76E4	N/A	ug/g
96000082	C-106 GRAB	7	DUP	S96T000552	0		@TICTOC1 TOC-02	SOLID	2.47E4	2.92E4	N/A	ug/g

Final page for worklist # 7392

Analyst Signature Date 4-5-96

Analyst Signature Date 4-6-96

Reviewed RW Schroeder 4/8/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 04/05/96 Time: 10:26:34

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.60	33.33
3	1.51	0.90	33.33
4	2.00	1.20	25.00
5	2.50	1.40	14.29
6	3.00	1.50	6.67
7	3.50	1.60	6.25
8	4.00	1.60	0.00
9	4.50	1.70	5.88
10	5.00	1.80	5.56
11	5.50	1.80	0.00
12	6.00	1.90	5.26
13	6.50	2.00	5.00
14	7.00	2.00	0.00
15	7.50	2.10	4.76
16	8.00	2.10	0.00
17	8.50	2.20	4.55
18	9.00	2.30	4.35
19	9.50	2.30	0.00
20	10.00	2.40	4.17
21	10.50	2.50	4.00
22	11.00	2.50	0.00

BLANK VALUE = 2.5 micrograms carbon
BLANK FACTOR = 2.5 / 10.99982 = +2.3E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1144 TO 1159.

Sample Run By: 4-5-96
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 04/05/96 Time: 10:39:48

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.50	100.00
3	1.50	3.80	86.84
4	2.00	8.40	54.76
5	2.50	10.70	21.50
6	3.00	11.80	9.32
7	3.50	12.40	4.84
8	4.00	12.90	3.88
9	4.50	13.20	2.27
10	5.00	13.50	2.22
11	5.50	13.90	2.88
12	6.00	14.30	2.80
13	6.50	14.60	2.05
14	7.00	14.90	2.01
15	7.50	15.10	1.32
16	8.00	15.30	1.31
17	8.50	15.50	1.29
18	9.00	15.70	1.27
19	9.50	15.90	1.26
20	10.00	16.10	1.24
21	10.50	16.40	1.83
22	11.00	16.50	0.61

BLANK VALUE = 16.5 micrograms carbon
BLANK FACTOR = 16.5 / 10.99884 = +1.50E+00 ug/min Carbon

~~<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>~~
Error message not applicable to this method. RWS 4/8/96

Sample Run By: KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 04/05/96 Time: 10:54:19

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	31.80	100.00
3	1.51	200.80	84.16
4	2.00	366.10	45.15
5	2.50	481.10	23.90
6	3.00	541.20	11.10
7	3.50	568.30	4.77
8	4.00	579.70	1.97
9	4.50	584.00	0.74
10	5.00	585.80	0.31
11	5.50	586.60	0.14
12	6.00	587.10	0.09
13	6.50	587.60	0.09
14	7.00	588.10	0.09
15	7.50	588.60	0.08
16	8.00	588.90	0.05
17	8.50	589.10	0.03
18	9.00	589.50	0.07
19	9.50	589.70	0.03
20	10.00	589.90	0.03
21	10.50	590.10	0.03
22	11.00	590.30	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(590.3 - 2.529509)(1)/(1000) = +5.878E-01 g/L Carbon
(590.3 - 2.529509)(1)/(1000)(12) = +4.898E-02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 04/05/96 Time: 11:06:30

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.00	34.40	100.00
3	1.50	243.70	85.88
4	2.00	448.80	45.70
5	2.50	528.00	15.00
6	3.00	552.90	4.50
7	3.50	559.70	1.21
8	4.00	562.10	0.43
9	4.50	563.30	0.21
10	5.00	564.20	0.16
11	5.50	565.00	0.14
12	6.00	565.70	0.12
13	6.50	566.30	0.11
14	7.00	566.70	0.07
15	7.50	567.20	0.09
16	8.00	567.50	0.05
17	8.50	567.90	0.07
18	9.00	568.10	0.04
19	9.50	568.40	0.05
20	10.00	568.80	0.07
21	10.50	569.00	0.04
22	11.00	569.30	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(569.3 - 16.50256)(1)/(200) = +2.764E+00 g/L Carbon
(569.3 - 16.50256)(1)/(200)(12) = +2.303E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: R BLK Date: 04/05/96 Time: 11:20:21

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	0.60	33.33
3	1.51	0.90	33.33
4	2.00	1.20	25.00
5	2.50	1.40	14.29
6	3.00	1.70	17.65
7	3.50	1.70	0.00
8	4.00	1.90	10.53
9	4.50	2.00	5.00
10	5.00	2.10	4.76
11	5.50	2.20	4.55
12	6.00	2.30	4.35
13	6.50	2.40	4.17
14	7.00	2.60	7.69
15	7.50	2.60	0.00
16	8.00	2.60	0.00
17	8.50	2.80	7.14
18	9.00	2.90	3.45
19	9.50	3.00	3.33
20	10.00	3.10	3.23
21	10.50	3.10	0.00
22	11.00	3.30	6.06

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(3.3 - 2.530154)(1)/(1) = +7.7E-01 g/L Carbon
(3.3 - 2.530154)(1)/(1)(12) = +6.4E-02 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: R BLK Date: 04/05/96 Time: 11:32:24

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.60	100.00
3	1.50	5.10	88.24
4	2.00	10.40	50.96
5	2.50	14.00	25.71
6	3.00	15.30	8.50
7	3.50	16.10	4.97
8	4.00	16.40	1.83
9	4.50	16.60	1.20
10	5.00	16.60	0.00
11	5.50	16.60	0.00
12	6.00	16.70	0.60
13	6.50	17.20	2.91
14	7.00	17.80	3.37
15	7.50	18.30	2.73
16	8.00	18.70	2.14
17	8.50	18.90	1.06
18	9.00	19.00	0.53
19	9.50	19.20	1.04
20	10.00	19.30	0.52
21	10.50	19.40	0.52
22	11.00	19.60	1.02

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(19.6 - 16.4967)(1)/(1) = +3.10E+00 g/L Carbon
(19.6 - 16.4967)(1)/(1)(12) = +2.59E-01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T568 Date: 04/05/96 Time: 14:54:45

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.00	0.00
2	1.01	8.00	75.00
3	1.51	125.70	93.64
4	2.00	336.40	62.63
5	2.50	524.00	35.80
6	3.00	649.70	19.35
7	3.50	719.20	9.66
8	4.00	756.40	4.92
9	4.50	771.50	1.96
10	5.00	777.40	0.76
11	5.50	780.30	0.37
12	6.00	781.40	0.14
13	6.50	782.40	0.13
14	7.00	783.10	0.09
15	7.50	783.70	0.08
16	8.00	784.40	0.09
17	8.50	784.80	0.05
18	9.00	785.60	0.10
19	9.50	786.50	0.11
20	10.00	787.00	0.06
21	10.50	787.50	0.06
22	11.00	787.90	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(787.9 - 2.529733)(1)/(1) = +7.854E+02 g/L Carbon
(787.9 - 2.529733)(1)/(1)(12) = +6.545E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

785.4 = 2.93E4
0268

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T568 Date: 04/05/96 Time: 16:31:34

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	49.90	99.60
3	1.50	232.30	78.52
4	2.00	337.10	31.09
5	2.50	395.40	14.74
6	3.00	429.90	8.03
7	3.50	451.90	4.87
8	4.00	468.30	3.50
9	4.50	481.50	2.74
10	5.00	493.50	2.43
11	5.50	504.00	2.08
12	6.00	513.20	1.79
13	6.50	521.50	1.59
14	7.00	528.70	1.36
15	7.50	535.30	1.23
16	8.00	540.90	1.04
17	8.50	545.90	0.92
18	9.00	550.10	0.76
19	9.50	554.10	0.72
20	10.00	557.70	0.65
21	10.50	560.80	0.55
22	11.00	563.50	0.48

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(563.5 - 16.49954)(1)/(1) = +5.470E+02 g/L Carbon
(563.5 - 16.49954)(1)/(1)(12) = +4.558E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$\frac{547.0}{.0268} = 2.04E4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T568 Date: 04/05/96 Time: 16:47:32

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	4.90	100.00
3	1.51	108.10	95.47
4	2.00	282.30	61.71
5	2.50	436.50	35.33
6	3.00	537.00	18.72
7	3.50	595.90	9.88
8	4.00	625.30	4.70
9	4.50	636.80	1.81
10	5.00	641.30	0.70
11	5.50	643.10	0.28
12	6.00	643.80	0.11
13	6.50	644.40	0.09
14	7.00	644.80	0.06
15	7.50	645.20	0.06
16	8.00	645.40	0.03
17	8.50	645.80	0.06
18	9.00	646.10	0.05
19	9.50	646.40	0.05
20	10.00	646.70	0.05
21	10.50	647.00	0.05
22	11.00	647.20	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(647.2 - 2.529916)(1)/(1) = +6.447E+02 g/L Carbon
(647.2 - 2.529916)(1)/(1)(12) = +5.372E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$\frac{644.7}{.0252} = 2.56e^4$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T568 Date: 04/05/96 Time: 16:59:30

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	116.80	100.00
3	1.51	337.70	65.41
4	2.00	450.70	25.07
5	2.50	509.90	11.61
6	3.00	541.40	5.82
7	3.50	560.00	3.32
8	4.00	573.20	2.30
9	4.50	584.20	1.88
10	5.00	592.80	1.45
11	5.50	601.20	1.40
12	6.00	608.10	1.13
13	6.50	614.20	0.99
14	7.00	619.20	0.81
15	7.50	624.50	0.85
16	8.00	628.30	0.60
17	8.50	632.10	0.60
18	9.00	635.50	0.54
19	9.50	638.30	0.44
20	10.00	640.80	0.39
21	10.50	642.80	0.31
22	11.00	645.10	0.36

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(645.1 - 16.49973)(1)/(1) = +6.286E+02 g/L Carbon
(645.1 - 16.49973)(1)/(1)(12) = +5.238E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$\frac{628.6}{.0252} = 2.49E^4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T568 + SPK Date: 04/05/96 Time: 17:11:37

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.60	0.00
2	1.01	8.40	80.95
3	1.51	148.90	94.36
4	2.00	431.00	65.45
5	2.50	685.00	37.08
6	3.00	847.20	19.15
7	3.50	936.10	9.50
8	4.00	984.20	4.89
9	4.50	1007.00	2.26
10	5.00	1015.50	0.84
11	5.50	1019.10	0.35
12	6.00	1020.20	0.11
13	6.50	1021.20	0.10
14	7.00	1021.90	0.07
15	7.50	1022.40	0.05
16	8.00	1023.00	0.06
17	8.50	1023.50	0.05
18	9.00	1024.00	0.05
19	9.50	1024.60	0.06
20	10.00	1025.10	0.05
21	10.50	1025.70	0.06
22	11.00	1026.10	0.04

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(1026.1 - 2.529733)(1)/(1) = +1.0236E+03 g/L Carbon
(1026.1 - 2.529733)(1)/(1)(12) = +8.5298E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$$\frac{1026.1}{\left[\left(\frac{787.9}{.0268}\right)(.0246) + 300\right]} = 100\ \%\ REC$$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T568 + SPK Date: 04/05/96 Time: 17:25:17

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	83.70	99.64
3	1.51	303.80	72.45
4	2.01	471.40	35.55
5	2.51	554.70	15.02
6	3.00	599.80	7.52
7	3.50	625.50	4.11
8	4.00	642.40	2.63
9	4.50	655.60	2.01
10	5.00	666.00	1.56
11	5.50	674.90	1.32
12	6.00	682.10	1.06
13	6.50	688.60	0.94
14	7.00	694.00	0.78
15	7.50	698.50	0.64
16	8.00	702.70	0.60
17	8.50	706.50	0.54
18	9.00	709.70	0.45
19	9.50	712.40	0.38
20	10.00	714.80	0.34
21	10.50	717.00	0.31
22	11.00	718.80	0.25

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(718.8 - 16.49982)(1)/(1) = +7.023E+02 g/L Carbon
(718.8 - 16.49982)(1)/(1)(12) = +5.853E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$$\frac{718.8}{\left[\left(\frac{563.5}{.0268}\right)(.0246)\right]+300} = 87.9\ \%\ REC$$

1155

E

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T552 Date: 04/05/96 Time: 13:37:54

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	7.10	100.00
3	1.51	211.10	96.64
4	2.00	480.70	56.08
5	2.50	692.40	30.57
6	3.00	830.30	16.61
7	3.50	910.20	8.78
8	4.00	952.00	4.39
9	4.50	969.50	1.81
10	5.00	976.40	0.71
11	5.50	979.70	0.34
12	6.00	981.50	0.18
13	6.50	982.50	0.10
14	7.00	983.50	0.10
15	7.50	984.00	0.05
16	8.00	984.60	0.06
17	8.50	985.00	0.04
18	9.00	985.60	0.06
19	9.50	985.90	0.03
20	10.00	986.50	0.06
21	10.50	986.80	0.03
22	11.00	987.30	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(987.3 - 2.529733)(1)/(1) = +9.848E+02 g/L Carbon
(987.3 - 2.529733)(1)/(1)(12) = +8.206E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$\frac{984.8}{.0384} = 2.56E^4$

EDEE

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T552 Date: 04/05/96 Time: 13:50:06

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	125.00	99.76
3	1.50	428.00	70.79
4	2.00	583.90	26.70
5	2.50	668.70	12.68
6	3.01	724.60	7.71
7	3.51	764.30	5.19
8	4.00	795.50	3.92
9	4.50	822.90	3.33
10	5.00	845.70	2.70
11	5.50	866.10	2.36
12	6.00	883.50	1.97
13	6.50	897.80	1.59
14	7.00	909.80	1.32
15	7.50	920.90	1.21
16	8.00	930.30	1.01
17	8.50	938.90	0.92
18	9.00	945.90	0.74
19	9.50	951.60	0.60
20	10.00	956.60	0.52
21	10.50	961.40	0.50
22	11.00	965.40	0.41

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(965.4 - 16.5011)(1)/(1) = +9.489E+02 g/L Carbon
(965.4 - 16.5011)(1)/(1)(12) = +7.907E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$\frac{948.9}{.0384} = 2.47_E{}^4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T552 Date: 04/05/96 Time: 14:04:14

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .23 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.00	0.00
2	1.01	12.50	84.00
3	1.51	209.60	94.04
4	2.00	446.70	53.08
5	2.50	623.30	28.33
6	3.00	739.90	15.76
7	3.50	810.10	8.67
8	4.00	846.30	4.28
9	4.50	862.10	1.83
10	5.00	869.90	0.90
11	5.50	872.70	0.32
12	6.00	874.10	0.16
13	6.50	875.20	0.13
14	7.00	875.70	0.06
15	7.50	876.40	0.08
16	8.00	876.80	0.05
17	8.50	877.40	0.07
18	9.00	877.90	0.06
19	9.50	878.40	0.06
20	10.00	878.80	0.05
21	10.50	879.30	0.06
22	11.00	879.70	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 2.529733 micrograms carbon
BLANK FACTOR = 2.529733 / 10.99884 = +2.3E-01 ug/min Carbon

SAMPLE RESULTS:
(879.7 - 2.529958)(1)/(1) = +8.772E+02 g/L Carbon
(879.7 - 2.529958)(1)/(1)(12) = +7.310E+01 Molar Carbon

Sample Run By: _____
KR MONTEITH 00000

$\frac{877.2}{.0318} = 2.76E^4$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T552 Date: 04/05/96 Time: 14:16:27

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.5 ug/minute C

Analyst : KR MONTEITH
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	116.80	99.74
3	1.51	449.20	74.00
4	2.00	609.00	26.24
5	2.50	694.40	12.30
6	3.00	743.90	6.65
7	3.50	778.20	4.41
8	4.00	804.40	3.26
9	4.50	826.00	2.62
10	5.00	844.80	2.23
11	5.50	860.70	1.85
12	6.00	874.00	1.52
13	6.50	886.50	1.41
14	7.00	896.80	1.15
15	7.50	906.40	1.06
16	8.00	914.30	0.86
17	8.50	921.10	0.74
18	9.00	927.70	0.71
19	9.50	933.20	0.59
20	10.00	938.10	0.52
21	10.50	942.30	0.45
22	11.00	946.50	0.44

USER INPUT BLANK VALUE
BLANK VALUE = 16.49826 micrograms carbon
BLANK FACTOR = 16.49826 / 10.99884 = +1.5E+00 ug/min Carbon

SAMPLE RESULTS:
(946.5 - 16.5011)(1)/(1) = +9.300E+02 g/L Carbon
(946.5 - 16.5011)(1)/(1)(12) = +7.750E+01 Molar Carbon

Sample Run By: KR MONTEITH 00000

$\frac{930.0}{.0318} = 2.92E^{4}$

LABCORE Data Entry Template for Worklist# 8126

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** _____

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: C-106 FOR TICTOC1 RTS

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				@TICTOC1 TIC-02	SOLID	6.02e2	6.01e2	N/A	ug/g
		1	STD				@TICTOC1 TOC-02	SOLID	2.99e3	2.77e3	N/A	ug/g
		2	BLNK				@TICTOC1 TIC-02	SOLID	1	0.50	N/A	ug/g
		2	BLNK				@TICTOC1 TOC-02	SOLID	1	1.60	N/A	ug/g
96000082	C-106 GRAB	3	SAMPLE	S96T001538	0		@TICTOC1 TIC-02	SOLID	N/A	2.54e4	5.00	ug/g
96000082	C-106 GRAB	3	SAMPLE	S96T001538	0		@TICTOC1 TOC-02	SOLID	N/A	1.48e4	40.0	ug/g
96000082	C-106 GRAB	4	DUP	S96T001538	0		@TICTOC1 TIC-02	SOLID	2.54e4	2.53e4	N/A	ug/g
96000082	C-106 GRAB	4	DUP	S96T001538	0		@TICTOC1 TOC-02	SOLID	1.48e4	1.64e4	N/A	ug/g
96000082	C-106 GRAB	5	SPK	S96T001538	0		@TICTOC1 TIC-02	SOLID	100	102.1	N/A	ug/g
96000082	C-106 GRAB	5	SPK	S96T001538	0		@TICTOC1 TOC-02	SOLID	100	84.8	N/A	ug/g

Final page for worklist # 8126

Analyst Signature Date

Analyst Signature Date 5-3-96

approved RW Schroeder 5/6/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

LABCORE Data Entry Template for Worklist# 8126

Analyst: JLS2 **Instrument:** CARB2 _____ **Book#** 22N12A TIC 16N12E TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106 FOR TICTOC1 RTS

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	STD				@TICTOC1	SOLID		
2	BLNK				@TICTOC1	SOLID		
3	SAMPLE	S96T001538	0		@TICTOC1	SOLID	96000082	C-106 GRAB
		Analytes Requested:			TIC-02 , TOC-02			
4	DUP	S96T001538	0		@TICTOC1	SOLID		
5	SPK	S96T001538	0		@TICTOC1	SOLID		

Final page for worklist # 8126

Jackie Steele 4/30/96
Analyst Signature **Date**

[illegible] 5-1-96
Analyst Signature **Date**

TI 8126

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/30/96 Time: 09:21:47

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.00	2.60	50.00
3	1.50	3.00	13.33
4	2.00	3.40	11.76
5	2.50	3.80	10.53
6	3.00	4.00	5.00
7	3.50	4.20	4.76
8	4.00	4.40	4.55
9	4.50	4.60	4.35
10	5.00	4.70	2.13
11	5.50	4.90	4.08
12	6.00	5.00	2.00
13	6.50	5.20	3.85
14	7.00	5.40	3.70
15	7.50	5.40	0.00
16	8.00	5.60	3.57
17	8.50	5.70	1.75
18	9.00	5.80	1.72
19	9.50	5.90	1.69
20	10.00	6.00	1.67
21	10.50	6.10	1.64
22	11.00	6.20	1.61

BLANK VALUE = 6.2 micrograms carbon
BLANK FACTOR = 6.2 / 10.99982 = +5.6E-01 ug/min Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1162 TO 1178.

Sample Run By: Jackie Steele 4/30/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

WHC-SD-WM-DP-183, REV. 0

Sample: BASELINE Date: 04/30/96 Time: 09:33:50

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	2.00	95.00
3	1.50	7.30	72.60
4	2.00	13.00	43.85
5	2.50	16.50	21.21
6	3.00	18.40	10.33
7	3.50	20.00	8.00
8	4.00	21.10	5.21
9	4.50	22.10	4.52
10	5.00	22.80	3.07
11	5.50	23.90	4.60
12	6.00	24.30	1.65
13	6.50	24.80	2.02
14	7.00	25.20	1.59
15	7.50	25.60	1.56
16	8.00	25.80	0.78
17	8.50	26.10	1.15
18	9.00	26.40	1.14
19	9.50	26.80	1.49
20	10.00	27.10	1.11
21	10.50	27.30	0.73
22	11.00	27.50	0.73

BLANK VALUE = 27.5 micrograms carbon
BLANK FACTOR = 27.5 / 11.00067 = +2.50E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 04/30/96 Time: 09:47:19

Sample Size = 1 uL 1ml
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	36.30	99.45
3	1.51	201.70	82.00
4	2.00	372.10	45.79
5	2.50	492.30	24.42
6	3.00	556.20	11.49
7	3.50	586.20	5.12
8	4.00	598.40	2.04
9	4.50	602.70	0.71
10	5.00	604.30	0.26
11	5.50	604.90	0.10
12	6.00	605.30	0.07
13	6.50	605.60	0.05
14	7.00	605.90	0.05
15	7.50	606.20	0.05
16	8.00	606.40	0.03
17	8.50	606.60	0.03
18	9.00	606.80	0.03
19	9.50	607.00	0.03
20	10.00	607.20	0.03
21	10.50	607.30	0.02
22	11.00	607.50	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(607.5 - 6.159829)(1)/(1) = +6.013E+02 g/L Carbon
(607.5 - 6.159829)(1)/(1)(12) = +5.011E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

601.3 / 602 = 99.882

1164

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12E Date: 04/30/96 Time: 09:59:22

Sample Size = 1 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	8.50	97.65
3	1.51	109.00	92.20
4	2.01	351.00	68.95
5	2.51	503.60	30.30
6	3.00	553.30	8.98
7	3.50	568.10	2.61
8	4.00	572.10	0.70
9	4.50	573.80	0.30
10	5.00	574.90	0.19
11	5.50	575.70	0.14
12	6.00	576.70	0.17
13	6.50	577.40	0.12
14	7.00	578.10	0.12
15	7.50	578.50	0.07
16	8.00	579.00	0.09
17	8.50	579.40	0.07
18	9.00	579.80	0.07
19	9.50	580.20	0.07
20	10.00	580.40	0.03
21	10.50	580.70	0.05
22	11.00	580.90	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(580.9 - 27.4971)(1)/(1) = +5.534E+02 g/L Carbon
(580.9 - 27.4971)(1)/(1)(12) = +4.612E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

553.4 / .200ml = 2767 / 3000 = 92.232

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/30/96 Time: 10:12:31

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	2.00	80.00
3	1.50	2.80	28.57
4	2.00	3.20	12.50
5	2.50	3.40	5.88
6	3.00	3.60	5.56
7	3.50	3.70	2.70
8	4.00	3.90	5.13
9	4.50	4.00	2.50
10	5.00	4.20	4.76
11	5.50	4.30	2.33
12	6.00	4.40	2.27
13	6.50	4.60	4.35
14	7.00	4.70	2.13
15	7.50	4.80	2.08
16	8.00	4.90	2.04
17	8.50	5.00	2.00
18	9.00	5.20	3.85
19	9.50	5.30	1.89
20	10.00	5.40	1.85
21	10.50	5.60	3.57
22	11.00	5.70	1.75

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(5.7 - 6.159317)(1)/(1) = < 5.00 E-3 g/L Carbon
(5.7 - 6.159317)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

/5.70-6.20/ = .5

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 04/30/96 Time: 10:26:19

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.90	89.47
3	1.51	6.90	72.46
4	2.01	12.60	45.24
5	2.51	16.50	23.64
6	3.01	18.80	12.23
7	3.50	20.30	7.39
8	4.00	21.20	4.25
9	4.50	22.00	3.64
10	5.00	22.70	3.08
11	5.50	23.00	1.30
12	6.00	23.50	2.13
13	6.50	23.90	1.67
14	7.00	24.10	0.83
15	7.50	24.40	1.23
16	8.00	24.70	1.21
17	8.50	24.90	0.80
18	9.00	25.10	0.80
19	9.50	25.30	0.79
20	10.00	25.50	0.78
21	10.50	25.70	0.78
22	11.00	25.90	0.77

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(25.9 - 27.49924)(1)/(1) = < 5.00 E-3 g/L Carbon
(25.9 - 27.49924)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

|25.90 - 27.50| = 1.6

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001538 Date: 04/30/96 Time: 10:40:52

Sample Size = 1 uL .0216g
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	23.80	99.58
3	1.50	167.20	85.77
4	2.00	333.70	49.90
5	2.50	448.10	25.53
6	3.00	507.50	11.70
7	3.50	533.30	4.84
8	4.00	543.40	1.86
9	4.50	546.90	0.64
10	5.00	548.30	0.26
11	5.50	549.20	0.16
12	6.00	549.80	0.11
13	6.50	550.50	0.13
14	7.00	550.90	0.07
15	7.50	551.50	0.11
16	8.00	551.90	0.07
17	8.50	552.40	0.09
18	9.00	552.90	0.09
19	9.50	553.40	0.09
20	10.00	553.70	0.05
21	10.50	554.10	0.07
22	11.00	554.40	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(554.4 - 6.159897)(1)/(1) = +5.482E+02 g/L Carbon
(554.4 - 6.159897)(1)/(1)(12) = +4.569E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{548.2}{.0216g} = 2.5380E4$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001538 Date: 04/30/96 Time: 10:53:37

Sample Size = 1 uL .0216g
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	56.40	98.94
3	1.50	135.20	58.28
4	2.01	185.10	26.96
5	2.51	217.30	14.82
6	3.01	239.00	9.08
7	3.51	256.30	6.75
8	4.00	271.40	5.56
9	4.50	285.00	4.77
10	5.00	295.80	3.65
11	5.50	305.40	3.14
12	6.00	313.30	2.52
13	6.50	320.30	2.19
14	7.00	325.60	1.63
15	7.50	330.40	1.45
16	8.00	334.40	1.20
17	8.50	337.40	0.89
18	9.00	340.10	0.79
19	9.50	342.40	0.67
20	10.00	344.40	0.58
21	10.50	346.10	0.49
22	11.00	347.20	0.32

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(347.2 - 27.50153)(1)/(1) = +3.197E+02 g/L Carbon
(347.2 - 27.50153)(1)/(1)(12) = +2.664E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{319.7}{.0216g} = 1.4801^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1538 DUP Date: 04/30/96 Time: 11:05:29

Sample Size = 1 uL .030deg
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.00	62.00	99.35
3	1.50	287.00	78.40
4	2.00	509.40	43.66
5	2.50	652.10	21.88
6	3.00	726.00	10.18
7	3.50	756.50	4.03
8	4.00	768.60	1.57
9	4.50	772.00	0.44
10	5.00	773.70	0.22
11	5.50	774.90	0.15
12	6.00	775.50	0.08
13	6.50	776.40	0.12
14	7.00	777.00	0.08
15	7.50	777.60	0.08
16	8.00	778.10	0.06
17	8.50	778.50	0.05
18	9.00	779.20	0.09
19	9.50	779.50	0.04
20	10.00	780.00	0.06
21	10.50	780.50	0.06
22	11.00	780.90	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(780.9 - 6.159385)(1)/(1) = +7.747E+02 g/L Carbon
(780.9 - 6.159385)(1)/(1)(12) = +6.456E+01 Molar Carbon

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{774.7}{.030deg} = 2.5317^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1538 DUP Date: 04/30/96 Time: 11:20:17

Sample Size = 1 uL .0306g
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	112.80	99.20
3	1.50	254.00	55.59
4	2.00	330.70	23.19
5	2.50	377.60	12.42
6	3.00	406.90	7.20
7	3.50	428.90	5.13
8	4.00	445.90	3.81
9	4.50	461.30	3.34
10	5.00	473.30	2.54
11	5.50	483.80	2.17
12	6.00	492.10	1.69
13	6.50	499.40	1.46
14	7.00	505.20	1.15
15	7.50	510.20	0.98
16	8.00	514.30	0.80
17	8.50	518.30	0.77
18	9.00	521.00	0.52
19	9.50	523.50	0.48
20	10.00	526.00	0.48
21	10.50	527.50	0.28
22	11.00	528.90	0.26

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(528.9 - 27.50122)(1)/(1) = +5.014E+02 g/L Carbon
(528.9 - 27.50122)(1)/(1)(12) = +4.178E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

$\frac{501.4}{.0306} = 1.6386^{E4}$ **1171**

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1538 SPIKE Date: 04/30/96 Time: 11:33:11

Sample Size = 1 uL .0305g + .500ml 22N12A
Dil Factor = 1
Blank ID # =
Blank Value = .56 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	29.30	98.98
3	1.51	258.60	88.67
4	2.00	594.10	56.47
5	2.50	845.90	29.77
6	3.00	986.90	14.29
7	3.50	1052.80	6.26
8	4.00	1079.70	2.49
9	4.50	1089.40	0.89
10	5.00	1093.60	0.38
11	5.50	1095.80	0.20
12	6.00	1097.50	0.15
13	6.50	1098.70	0.11
14	7.00	1099.80	0.10
15	7.50	1100.90	0.10
16	8.00	1101.80	0.08
17	8.50	1102.50	0.06
18	9.00	1103.30	0.07
19	9.50	1104.50	0.11
20	10.00	1105.10	0.05
21	10.50	1105.80	0.06
22	11.00	1106.50	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 6.160376 micrograms carbon
BLANK FACTOR = 6.160376 / 11.00067 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(1106.5 - 6.160376)(1)/(1) = +1.1003E+03 g/L Carbon
(1106.5 - 6.160376)(1)/(1)(12) = +9.1695E+01 Molar Carbon

Sample Run By: Jackie Steele
JLVSTEELE 00000

$$\frac{1106.50}{\frac{554.40}{.0216} \times .0305 + 300} = \frac{1106.50}{1082.83} = 102.19\%$$

1172

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1538 SPIKE Date: 04/30/96 Time: 11:47:49

Sample Size = 1 uL .0305g + .100ml 16N12E
Dil Factor = 1
Blank ID # =
Blank Value = 2.5 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	54.30	99.08
3	1.50	200.90	72.97
4	2.00	385.60	47.90
5	2.50	489.60	21.24
6	3.01	539.10	9.18
7	3.51	567.30	4.97
8	4.00	587.80	3.49
9	4.50	602.70	2.47
10	5.00	614.50	1.92
11	5.50	623.90	1.51
12	6.00	632.20	1.31
13	6.50	638.80	1.03
14	7.00	644.40	0.87
15	7.50	649.50	0.79
16	8.00	653.40	0.60
17	8.50	657.20	0.58
18	9.00	660.20	0.45
19	9.50	663.00	0.42
20	10.00	665.30	0.35
21	10.50	667.30	0.30
22	11.00	669.20	0.28

USER INPUT BLANK VALUE
BLANK VALUE = 27.50168 micrograms carbon
BLANK FACTOR = 27.50168 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(669.2 - 27.5061)(1)/(1) = +6.417E+02 g/L Carbon
(669.2 - 27.5061)(1)/(1)(12) = +5.347E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele
JL STEELE 00000

1173

$$\frac{669.20}{\frac{347.20}{.0216} \times .0305 + 300} = \frac{669.20}{790.26} = 84.68\%$$

WORKBOOK PAGE: STD1

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
	Sample Size in mL	(SS)	1.0000	0.2000
STD	Dilution Factor	(DF)	1	1
	Final Coulometer Reading in µg	(C1)	607.5	580.9
8126	µg of Carbon from Baseline	(C2)	6.2	27.5
	Standard Book Number		22N12A	16N12E
@TICTOC1	Standard Value (µg/ml)		602	2990

LIQUID

96003985

0

N/A

STANDARD

CARB2

RTS

RWS

jls2

05/01/96

04/30/96

QC Actual in µg/mL = Standard Value (µg/mL)

QC Found in µg/mL = (C1 - C2) * DF / SS

QC Found in µg/mL for TIC = 5 if C1 < C2

QC Found in µg/mL for TOC = 40 if C1 < C2

% Recovery = QC Found / QC Actual * 100

		TIC	TOC
	Method Detection Limit in µg/mL	5	40
	QC Actual in µg/mL	6.02E+02	2.99E+03
	QC Found in µg/mL	6.01E+02	2.77E+03
C-106	Percent Standard Recovery	99.9	92.5

Data Entered By:	RTS	Date:	05/01/96
Signature of Chemist:	Ben Schroeder	Date:	5/2/96

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: BLANK2

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
BLNK	Sample Size in g	(SS)	0.0000	0.0000
	Dilution Factor	(DF)	1	1
8126	µg of Carbon in Sample	(C1)	5.7	25.9
	µg of Carbon from Baseline	(C2)	6.2	27.5

@TICTOC1

SOLID

96003985

µg of Carbon = |C1-C2|

0

N/A

CARB2

RTS

RWS

jls2

05/01/96

04/30/96

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon	5.00E-01	1.60E+00

C-106

Data Entered By:	RTS	Date:	05/01/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

BLANK.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
SAMPLE	Sample Size in g	(SS)	0.0216	0.0216
	Dilution Factor	(DF)	1	1
8126	µg of Carbon in Sample	(C1)	554.4	347.2
	µg of Carbon from Baseline	(C2)	6.2	27.5
@TICTOC1				

SOLID

96003985

0

N/A

S96T001538

CARB2

RTS

RWS

jls2

05/01/96

04/30/96

µg of Carbon/g = (C1-C2) * DF / SS
µg of Carbon/g for TIC = 5 if C1 < C2
µg of Carbon/g for TOC = 40 if C1 < C2

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon/g	2.54E+04	1.48E+04
C-106		

Data Entered By:	RTS	Date:	05/01/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
	Sample Size in g	(SS)	0.0306	0.0306
DUP	Dilution Factor	(DF)	1	1
	µg of Carbon in Sample	(C1)	780.9	528.9
8126	µg of Carbon from Baseline	(C2)	6.2	27.5
	Known µg of C from Original Sample		2.54E+4	1.48E+4
@TICTOC1				

SOLID

96003985

0

N/A

S96T001538

CARB2

RTS

RWS

jls2

05/01/96

04/30/96

µg of Carbon/g = (C1-C2) * DF / SS
µg of Carbon/g for TIC = 5 if C1 < C2
µg of Carbon/g for TOC = 40 if C1 < C2

RPD (of Sample and Dup Results) = | Difference | / Average

		TIC	TOC
	Method Detection Limit in ug/g	5	40
	µg of Carbon/g	2.53E+04	1.64E+04
C-106	RPD (of Sam and Dup Results)	0.3%	10.2%

Data Entered By:	RTS	Date:	05/01/96
Signature of Chemist:	RW Schroeder	Date:	5/2/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
	Sample Vial Data			
SPK	Sample Size in g	(SS)	0.0216	0.0216
	Final Coulometer Reading in µg	(C1)	554.4	347.2
8126	**Spiked Vial Data**			
	Sample Size in g	(SPK SS)	0.0305	0.0305
@TICTOC1	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
	Final Coulometer Reading in µg	(C3)	1106.5	669.2
SOLID	Spike Book Number		22N12A	16N12E
	Spike Standard Value in µg/ml		602	2990
96003985	Spike Concentration in µg	(SPK CONC)	301	299

0

N/A

S96T001538

CARB2

RTS

RWS

jls2

05/01/96

04/30/96

Spike Concentration in µg = (Spike Std. Value in µg/mL)*(SPK VOL)

Percent Spike Recovery = (C3) / [(C1/SS * SPK SS) + (SPK CONC)] * 100

QC Actual in µg/mL = Spike Value (µg/mL)
QC Found in µg/mL = (Percent Spike Recovery)*(QC Actual) / 100

		TIC	TOC
	QC Actual in µg/mL	6.02E+02	2.99E+03
	QC Found in µg/mL	6.15E+02	2.54E+03
C-106	Percent Spike Recovery	102.1	84.8

RW Schroeder 5/2/96

LABCORE Data Entry Template for Worklist# 7507

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** 22N12A TIC 16N12E TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: C-106 FOR ACID PERSULFATE RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	.3	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	3	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	~~6.02~~ 6.01 E2	5.63 E2	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00 E3	2.82 E3	N/A	ug/g
96000174	C-106 GRAB	3	SAMPLE	S96T001560	0		@TICTOC1 TIC-02	SOLID	N/A	2.64 E4	5.00	ug/g
96000174	C-106 GRAB	3	SAMPLE	S96T001560	0		@TICTOC1 TOC-02	SOLID	N/A	1.60 E4	40.00	ug/g
96000174	C-106 GRAB	4	DUP	S96T001560	0		@TICTOC1 TIC-02	SOLID	2.64 E4	2.66 E4	N/A	ug/g
96000174	C-106 GRAB	4	DUP	S96T001560	0		@TICTOC1 TOC-02	SOLID	1.60 E4	1.35 E4	N/A	ug/g
96000174	C-106 GRAB	5	SPK	S96T001560	0		@TICTOC1 TIC-02	SOLID	100	~~98~~ 103	N/A	ug/g
96000174	C-106 GRAB	5	SPK	S96T001560	0		@TICTOC1 TOC-02	SOLID	100	77	N/A	ug/g
96000174	C-106 GRAB	6	SAMPLE	S96T001686	0		@TICTOC1 TIC-02	SOLID	N/A	2.32 E4	5.00	ug/g
96000174	C-106 GRAB	6	SAMPLE	S96T001686	0		@TICTOC1 TOC-02	SOLID	N/A	2.00 E4	40.00	ug/g
96000174	C-106 GRAB	7	DUP	S96T001686	0		@TICTOC1 TIC-02	SOLID	2.32 E4	2.28 E4	N/A	ug/g
96000174	C-106 GRAB	7	DUP	S96T001686	0		@TICTOC1 TOC-02	SOLID	2.00 E4	1.73 E4	N/A	ug/g

Final page for worklist # 7507

Jackie Steele 4/10/96
Analyst Signature **Date**

Linda Cook 4/11/96
Analyst Signature **Date**

Reviewed RW Schroeder 4/11/96

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/10/96 Time: 08:26:15

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.00	1.30	61.54
3	1.50	2.10	38.10
4	2.00	2.70	22.22
5	2.50	3.20	15.63
6	3.00	3.50	8.57
7	3.50	4.00	12.50
8	4.00	4.30	6.98
9	4.50	4.60	6.52
10	5.00	5.10	9.80
11	5.50	5.30	3.77
12	6.00	5.70	7.02
13	6.50	6.10	6.56
14	7.00	6.40	4.69
15	7.50	6.60	3.03
16	8.00	7.00	5.71
17	8.50	7.30	4.11
18	9.00	7.60	3.95
19	9.50	7.90	3.80
20	10.00	8.30	4.82
21	10.50	8.60	3.49
22	11.00	8.90	3.37

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1180 TO 1195.

BLANK VALUE = 8.9 micrograms carbon
BLANK FACTOR = 8.9 / 10.99802 = +8.1E-01 ug/min Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 04/10/96 Time: 08:38:19

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE
Blank Value = N/A

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.90	88.89
3	1.50	3.50	74.29
4	2.00	7.70	54.55
5	2.50	10.50	26.67
6	3.00	12.10	13.22
7	3.50	12.70	4.72
8	4.00	13.30	4.51
9	4.50	14.00	5.00
10	5.00	14.50	3.45
11	5.50	15.10	3.97
12	6.00	15.60	3.21
13	6.50	16.10	3.11
14	7.00	16.70	3.59
15	7.50	17.20	2.91
16	8.00	17.60	2.27
17	8.50	18.10	2.76
18	9.00	18.60	2.69
19	9.50	19.10	2.62
20	10.00	19.40	1.55
21	10.50	19.70	1.52
22	11.00	20.10	1.99

BLANK VALUE = 20.1 micrograms carbon
BLANK FACTOR = 20.1 / 10.99985 = +1.83E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 04/10/96 Time: 08:51:23

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	20.30	99.01
3	1.51	151.40	86.59
4	2.01	313.90	51.77
5	2.51	438.60	28.43
6	3.00	511.30	14.22
7	3.50	544.80	6.15
8	4.00	559.10	2.56
9	4.50	564.60	0.97
10	5.00	566.70	0.37
11	5.50	567.60	0.16
12	6.00	568.30	0.12
13	6.50	568.90	0.11
14	7.00	569.30	0.07
15	7.50	569.80	0.09
16	8.00	570.20	0.07
17	8.50	570.60	0.07
18	9.00	571.00	0.07
19	9.50	571.40	0.07
20	10.00	571.60	0.03
21	10.50	572.00	0.07
22	11.00	572.30	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 8.909877 micrograms carbon
BLANK FACTOR = 8.909877 / 10.99985 = +8.1E-01 ug/min Carbon

SAMPLE RESULTS:
(572.3 - 8.912027)(1)/(1) = +5.634E+02 g/L Carbon
(572.3 - 8.912027)(1)/(1)(12) = +4.695E+01 Molar Carbon

Sample Run By: Jackie Steele 4/10/96
JL STEELE 00000

$\frac{563.4}{602} = 93.592$

1182