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

DOCUMENT NUMBER: SD-WM-DP-182

SECTION 6 **OF** 10

TITLE: Final Results for Tank 241-U-105 Push Mode Cores 131, 133 and 136

DATE: 7/26/96

ORIGINATOR: Fritts, K.L.

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN-633312

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-182, REV. 1

Sample: 1289 DUP Date: 05/24/96 Time: 14:53:49

Sample Size = 1 uL .1015g
Dil Factor = 1
Blank ID # =
Blank Value = 2.47 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	2.60	53.85
3	1.50	54.40	95.22
4	2.00	251.30	78.35
5	2.50	593.70	57.67
6	3.00	921.80	35.59
7	3.50	1117.60	17.52
8	4.00	1216.30	8.11
9	4.50	1270.90	4.30
10	5.00	1308.10	2.84
11	5.50	1333.00	1.87
12	6.00	1346.90	1.03
13	6.50	1355.90	0.66
14	7.00	1362.30	0.47
15	7.50	1368.20	0.43
16	8.00	1372.70	0.33
17	8.50	1376.50	0.28
18	9.00	1379.50	0.22
19	9.50	1382.10	0.19
20	10.00	1384.30	0.16
21	10.50	1386.50	0.16
22	11.00	1388.10	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 27.17166 micrograms carbon
BLANK FACTOR = 27.17166 / 11.00067 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1388.1 - 27.16714)(1)/(1) = +1.3609E+03 g/L Carbon
(1388.1 - 27.16714)(1)/(1)(12) = +1.1341E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/24/96
JL STEELE 00000

$\frac{1360.9}{.1015g} = 1.340g/L$

worklistrpt Version 2.1 05/15/95
05/20/96 11:55

LABCORE Data Entry Template for Worklist# 6613

Analyst: SLH **Instrument:** CARB2 **Book #** 22N12A TIC 16N12E TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: U-105 FOR TIC/TOC ACID PERSULFATE RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	.2	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	8.9	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02E2	5.99E2	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00E3	2.73E3	N/A	ug/g
96000092	U-105 (R)	3	SAMPLE	S96T000953	0		@TICTOC1 TIC-02	SOLID	N/A	8.53E3	5.00	ug/g
96000092	U-105 (R)	3	SAMPLE	S96T000953	0		@TICTOC1 TOC-02	SOLID	N/A	1.18E4	40.0	ug/g
96000092	U-105 (R)	4	DUP	S96T000953	0		@TICTOC1 TIC-02	SOLID	8.53E3	8.72E3	N/A	ug/g
96000092	U-105 (R)	4	DUP	S96T000953	0		@TICTOC1 TOC-02	SOLID	1.18E4	1.17E4	N/A	ug/g
96000092	U-105 (R)	5	SPK	S96T000953	0		@TICTOC1 TIC-02	SOLID	100	100	N/A	ug/g
96000092	U-105 (R)	5	SPK	S96T000953	0		@TICTOC1 TOC-02	SOLID	100	97	N/A	ug/g
96000092	U-105 (R)	6	SAMPLE	S96T000946	0		@TICTOC1 TIC-02	SOLID	N/A	9.46E3	5.00	ug/g
96000092	U-105 (R)	6	SAMPLE	S96T000946	0		@TICTOC1 TOC-02	SOLID	N/A	1.20E4	40.0	ug/g
96000092	U-105 (R)	7	DUP	S96T000946	0		@TICTOC1 TIC-02	SOLID	9.46E3	8.99E3	N/A	ug/g
96000092	U-105 (R)	7	DUP	S96T000946	0		@TICTOC1 TOC-02	SOLID	1.20E4	1.14E4	N/A	ug/g
96000092	U-105 (R)	8	SAMPLE	S96T000967	0		@TICTOC1 TIC-02	SOLID	N/A	6.73E3	5.00	ug/g
96000092	U-105 (R)	8	SAMPLE	S96T000967	0		@TICTOC1 TOC-02	SOLID	N/A	8.86E3	40.0	ug/g
96000092	U-105 (R)	9	DUP	S96T000967	0		@TICTOC1 TIC-02	SOLID	6.73E3	6.78E3	N/A	ug/g
96000092	U-105 (R)	9	DUP	S96T000967	0		@TICTOC1 TOC-02	SOLID	8.86E3	8.49E3	N/A	ug/g

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.

worklistrpt Version 2.1 05/15/95
05/20/96 11:55

LABCORE Data Entry Template for Worklist# 6613

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
96000092	U-105 (R)	10 SAMPLE	S96T000960	0		@TICTOC1 TIC-02	SOLID	N/A	6.06E3	5.00	ug/g
96000092	U-105 (R)	10 SAMPLE	S96T000960	0		@TICTOC1 TOC-02	SOLID	N/A	8.68E3	40.0	ug/g
96000092	U-105 (R)	11 DUP	S96T000960	0		@TICTOC1 TIC-02	SOLID	6.06E3	6.26E3	N/A	ug/g
96000092	U-105 (R)	11 DUP	S96T000960	0		@TICTOC1 TOC-02	SOLID	8.68E3	8.74E3	N/A	ug/g
96000092	U-105 (R)	12 SAMPLE	S96T000997	0		@TICTOC1 TIC-02	SOLID	N/A	483E3	5.00	ug/g
96000092	U-105 (R)	12 SAMPLE	S96T000997	0		@TICTOC1 TOC-02	SOLID	N/A	1.63E4	40.0	ug/g
96000092	U-105 (R)	13 DUP	S96T000997	0		@TICTOC1 TIC-02	SOLID	4.83E3	4.72E3	N/A	ug/g
96000092	U-105 (R)	13 DUP	S96T000997	0		@TICTOC1 TOC-02	SOLID	1.63E4	1.42E4	N/A	ug/g

Final page for worklist # 6613

Sandra J Hood Boatright
Analyst Signature **Date** 5/17/96

RH Stole 5-20-96
Analyst Signature **Date**

Approved RW Schroeder 5/20/96

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

Sample: STD Date: 05/16/96 Time: 19:52:06

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	5.80	100.00
3	1.51	104.20	94.43
4	2.01	270.80	61.52
5	2.50	412.60	34.37
6	3.00	504.20	18.17
7	3.50	556.20	9.35
8	4.00	582.00	4.43
9	4.50	593.60	1.95
10	5.00	598.00	0.74
11	5.50	600.20	0.37
12	6.00	601.10	0.15
13	6.50	601.70	0.10
14	7.00	602.10	0.07
15	7.50	602.40	0.05
16	8.00	602.70	0.05
17	8.50	603.00	0.05
18	9.00	603.30	0.05
19	9.50	603.50	0.03
20	10.00	603.70	0.03
21	10.50	603.90	0.03
22	11.00	604.10	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(604.1 - 5.279414)(1)/(1000) = +5.988E-01 g/L Carbon
(604.1 - 5.279414)(1)/(1000)(12) = +4.990E-02 Molar Carbon

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1333 TO 1360.

Sample Run By: SL Hood Bootright 5/17/96
SL HOOD 00000

598.82 / 602 = 99.47%

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 05/16/96 Time: 20:04:28

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	5.80	100.00
3	1.50	77.60	92.53
4	2.00	258.60	69.99
5	2.50	431.70	40.10
6	3.00	519.90	16.96
7	3.50	554.70	6.27
8	4.00	566.80	2.13
9	4.50	570.80	0.70
10	5.00	572.60	0.31
11	5.50	573.60	0.17
12	6.00	574.40	0.14
13	6.50	574.90	0.09
14	7.00	575.50	0.10
15	7.50	576.00	0.09
16	8.00	576.60	0.10
17	8.50	577.00	0.07
18	9.00	577.40	0.07
19	9.50	577.80	0.07
20	10.00	578.10	0.05
21	10.50	578.40	0.05
22	11.00	578.70	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(578.7 - 32.33318)(1)/(200) = +2.732E+00 g/L Carbon
(578.7 - 32.33318)(1)/(200)(12) = +2.277E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL Hood Boatright
SL HOOD 00000

$\frac{546.37}{.200ml} = 2.732^{E3} / 3.00^{E3} = 91.06\%$ 1334

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 05/16/96 Time: 18:48:21

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	0.10	0.00
2	1.01	1.10	90.91
3	1.51	2.00	45.00
4	2.01	2.50	20.00
5	2.51	2.80	10.71
6	3.01	3.10	9.68
7	3.51	3.30	6.06
8	4.01	3.40	2.94
9	4.51	3.60	5.56
10	5.00	3.70	2.70
11	5.50	3.80	2.63
12	6.00	4.00	5.00
13	6.50	4.10	2.44
14	7.00	4.30	4.65
15	7.50	4.40	2.27
16	8.00	4.60	4.35
17	8.50	4.60	0.00
18	9.00	4.80	4.17
19	9.50	4.90	2.04
20	10.00	5.10	3.92
21	10.50	5.20	1.92
22	11.00	5.30	1.89

BLANK VALUE = 5.3 micrograms carbon
BLANK FACTOR = 5.3 / 10.99976 = +4.8E-01 ug/min Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 05/16/96 Time: 19:38:53

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	0.00	0.00
2	1.01	1.30	100.00
3	1.51	7.90	83.54
4	2.00	17.00	53.53
5	2.50	22.40	24.11
6	3.00	24.90	10.04
7	3.50	26.40	5.68
8	4.00	27.20	2.94
9	4.50	27.90	2.51
10	5.00	28.50	2.11
11	5.50	28.90	1.38
12	6.00	29.40	1.70
13	6.50	29.90	1.67
14	7.00	30.20	0.99
15	7.50	30.60	1.31
16	8.00	30.90	0.97
17	8.50	31.20	0.96
18	9.00	31.40	0.64
19	9.50	31.60	0.63
20	10.00	31.80	0.63
21	10.50	32.00	0.63
22	11.00	32.30	0.93

BLANK VALUE = 32.3 micrograms carbon
BLANK FACTOR = 32.3 / 10.99878 = +2.94E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 05/16/96 Time: 21:33:14

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.70	85.71
3	1.51	1.60	56.25
4	2.01	2.10	23.81
5	2.50	2.50	16.00
6	3.00	2.70	7.41
7	3.50	2.90	6.90
8	4.00	3.10	6.45
9	4.50	3.20	3.13
10	5.00	3.40	5.88
11	5.50	3.60	5.56
12	6.00	3.70	2.70
13	6.50	3.90	5.13
14	7.00	3.90	0.00
15	7.50	4.10	4.88
16	8.00	4.20	2.38
17	8.50	4.40	4.55
18	9.00	4.50	2.22
19	9.50	4.70	4.26
20	10.00	4.80	2.08
21	10.50	5.00	4.00
22	11.00	5.10	1.96

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(5.1 - 5.279883)(1)/(1) = < 5.00 E-3 g/L Carbon
(5.1 - 5.279883)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
SL HOOD 00000

|5.10-5.30| = .2

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 05/16/96 Time: 21:45:30

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	1.40	92.86
3	1.51	6.10	77.05
4	2.00	11.70	47.86
5	2.50	14.90	21.48
6	3.00	16.60	10.24
7	3.50	17.40	4.60
8	4.00	18.10	3.87
9	4.50	18.90	4.23
10	5.00	19.80	4.55
11	5.50	20.40	2.94
12	6.00	20.90	2.39
13	6.50	21.30	1.88
14	7.00	21.60	1.39
15	7.50	21.90	1.37
16	8.00	22.20	1.35
17	8.50	22.40	0.89
18	9.00	22.60	0.88
19	9.50	22.90	1.31
20	10.00	23.10	0.87
21	10.50	23.30	0.86
22	11.00	23.40	0.43

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(23.4 - 32.33964)(1)/(1) = < 5.00 E-3 g/L Carbon
(23.4 - 32.33964)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

|23.40 − 32.3| = 8.9

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00953 Date: 05/16/96 Time: 22:02:52

Sample Size = 1 uL .2200g
Dil Factor = 1
Blank ID # =
Blank Value = 0 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	16.60	98.80
3	1.50	388.90	95.73
4	2.00	937.60	58.52
5	2.50	1290.70	27.36
6	3.00	1508.20	14.42
7	3.50	1636.70	7.85
8	4.00	1713.00	4.45
9	4.50	1759.70	2.65
10	5.00	1789.90	1.69
11	5.50	1810.80	1.15
12	6.00	1825.10	0.78
13	6.50	1835.50	0.57
14	7.00	1843.90	0.46
15	7.50	1850.70	0.37
16	8.00	1856.70	0.32
17	8.50	1861.30	0.25
18	9.00	1865.20	0.21
19	9.50	1868.90	0.20
20	10.00	1871.90	0.16
21	10.50	1874.50	0.14
22	11.00	1876.80	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 10.99878 = +0.0E+00 ug/min Carbon

SAMPLE RESULTS:
(1876.8 - 0)(1)/(1) = +1.8768E+03 g/L Carbon
(1876.8 - 0)(1)/(1)(12) = +1.5640E+02 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{1876.8}{.2200} = 8.530E3$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00953 Date: 05/16/96 Time: 22:16:38

Sample Size = 1 uL .2200g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.50	0.00
2	1.01	33.50	92.54
3	1.50	286.30	88.30
4	2.00	711.50	59.76
5	2.50	1370.90	48.10
6	3.00	1906.40	28.09
7	3.50	2193.00	13.07
8	4.00	2346.40	6.54
9	4.50	2433.90	3.60
10	5.00	2488.90	2.21
11	5.50	2526.20	1.48
12	6.00	2551.20	0.98
13	6.50	2568.30	0.67
14	7.00	2582.30	0.54
15	7.50	2592.20	0.38
16	8.00	2600.50	0.32
17	8.50	2607.00	0.25
18	9.00	2612.70	0.22
19	9.50	2616.80	0.16
20	10.00	2620.60	0.15
21	10.50	2623.70	0.12
22	11.00	2626.50	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(2626.5 - 32.33677)(1)/(1) = +2.5942E+03 g/L Carbon
(2626.5 - 32.33677)(1)/(1)(12) = +2.1618E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{2594.2}{.2200} = 1.1793\ E^4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00953 DUP Date: 05/16/96 Time: 22:30:10

Sample Size = 1 uL .1854g
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	15.00	89.33
3	1.51	348.40	95.69
4	2.01	825.20	57.78
5	2.51	1132.30	27.12
6	3.00	1316.00	13.96
7	3.50	1424.50	7.62
8	4.00	1488.70	4.31
9	4.50	1527.50	2.54
10	5.00	1550.70	1.50
11	5.50	1565.60	0.95
12	6.00	1576.10	0.67
13	6.50	1584.60	0.54
14	7.00	1591.50	0.43
15	7.50	1597.50	0.38
16	8.00	1602.60	0.32
17	8.50	1606.60	0.25
18	9.00	1610.30	0.23
19	9.50	1613.70	0.21
20	10.00	1616.70	0.19
21	10.50	1619.10	0.15
22	11.00	1621.20	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(1621.2 - 5.280352)(1)/(1) = +1.6159E+03 g/L Carbon
(1621.2 - 5.280352)(1)/(1)(12) = +1.3466E+02 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{1615.9}{.1854} = 8.715E3$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00953 DUP Date: 05/16/96 Time: 22:43:32

Sample Size = 1 uL .1854g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.10	0.00
2	1.01	33.70	93.77
3	1.51	286.90	88.25
4	2.00	743.70	61.42
5	2.50	1326.50	43.94
6	3.00	1708.10	22.34
7	3.50	1902.80	10.23
8	4.00	2005.50	5.12
9	4.50	2064.10	2.84
10	5.00	2101.20	1.77
11	5.50	2125.70	1.15
12	6.00	2142.20	0.77
13	6.50	2154.00	0.55
14	7.00	2163.10	0.42
15	7.50	2170.50	0.34
16	8.00	2176.10	0.26
17	8.50	2181.40	0.24
18	9.00	2185.30	0.18
19	9.50	2188.90	0.16
20	10.00	2192.00	0.14
21	10.50	2194.80	0.13
22	11.00	2197.40	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(2197.4 - 32.34143)(1)/(1) = +2.1651E+03 g/L Carbon
(2197.4 - 32.34143)(1)/(1)(12) = +1.8042E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

$\frac{2165.1}{.1854g} = 1.1677E4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00953 SPK Date: 05/16/96 Time: 23:23:02

Sample Size = 1 uL .1852g
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	1.20	0.00
2	1.01	18.40	93.48
3	1.50	374.90	95.09
4	2.00	879.60	57.38
5	2.50	1245.70	29.39
6	3.00	1473.00	15.43
7	3.50	1605.20	8.24
8	4.00	1685.80	4.78
9	4.50	1737.00	2.95
10	5.00	1772.30	1.99
11	5.50	1797.70	1.41
12	6.00	1814.40	0.92
13	6.50	1826.20	0.65
14	7.00	1836.10	0.54
15	7.50	1843.60	0.41
16	8.00	1850.60	0.38
17	8.50	1856.10	0.30
18	9.00	1861.10	0.27
19	9.50	1865.50	0.24
20	10.00	1869.50	0.21
21	10.50	1873.20	0.20
22	11.00	1876.30	0.17

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(1876.3 - 5.280293)(1)/(1) = +1.8710E+03 g/L Carbon
(1876.3 - 5.280293)(1)/(1)(12) = +1.5592E+02 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{1871.0}{.1852} = 1.0102^{E4}$

1343 $\frac{1876.30}{\frac{1876.2605}{.2200} \times .1852 + 300} = \frac{1876.30}{\cancel{2511.03}\ 1879.92} = \cancel{74.78\%}\ 99.81\%$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00953 SPK Date: 05/16/96 Time: 23:35:52

Sample Size = 1 uL .1852g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.90	0.00
2	1.01	35.40	91.81
3	1.51	274.30	87.09
4	2.00	743.70	63.12
5	2.50	1420.60	47.65
6	3.00	1896.80	25.11
7	3.50	2117.90	10.44
8	4.00	2228.80	4.98
9	4.50	2293.90	2.84
10	5.00	2335.00	1.76
11	5.50	2360.30	1.07
12	6.00	2377.00	0.70
13	6.50	2389.00	0.50
14	7.00	2397.90	0.37
15	7.50	2405.40	0.31
16	8.00	2411.50	0.25
17	8.50	2416.60	0.21
18	9.00	2421.50	0.20
19	9.50	2425.50	0.16
20	10.00	2428.70	0.13
21	10.50	2432.00	0.14
22	11.00	2435.00	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(2435 - 32.34216)(1)/(1) = +2.4027E+03 g/L Carbon
(2435 - 32.34216)(1)/(1)(12) = +2.0022E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

$\frac{2402.7}{.1852} = 1.2973^{E4}$

$\frac{2435.00}{\frac{2626.5876}{.2200} \times .1852 + 300} = \frac{2435.00}{1449.75}$ 96.1
2511.03 94.5

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00946 Date: 05/16/96 Time: 23:48:05

Sample Size = 1 uL .1213g
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.70	0.00
2	1.01	11.90	77.31
3	1.51	180.70	93.41
4	2.00	448.90	59.75
5	2.50	649.00	30.83
6	3.00	795.70	18.44
7	3.50	897.20	11.31
8	4.00	962.90	6.82
9	4.50	1011.70	4.82
10	5.00	1046.60	3.33
11	5.50	1070.10	2.20
12	6.00	1086.10	1.47
13	6.50	1097.80	1.07
14	7.00	1109.30	1.04
15	7.50	1118.80	0.85
16	8.00	1126.30	0.67
17	8.50	1132.30	0.53
18	9.00	1137.90	0.49
19	9.50	1142.40	0.39
20	10.00	1146.50	0.36
21	10.50	1149.80	0.29
22	11.00	1153.40	0.31

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(1153.4 - 5.279941)(1)/(1) = +1.1481E+03 g/L Carbon
(1153.4 - 5.279941)(1)/(1)(12) = +9.5677E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

$\frac{1148.1}{.1213} = 9.464^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00946 Date: 05/17/96 Time: 00:00:14

Sample Size = 1 uL .1213g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.10	0.00
2	1.01	35.30	91.22
3	1.50	249.30	85.84
4	2.00	640.90	61.10
5	2.50	1023.70	37.39
6	3.00	1222.30	16.25
7	3.50	1309.00	6.62
8	4.00	1373.60	4.70
9	4.50	1411.20	2.66
10	5.00	1434.20	1.60
11	5.50	1447.60	0.93
12	6.00	1456.50	0.61
13	6.50	1463.40	0.47
14	7.00	1468.80	0.37
15	7.50	1473.10	0.29
16	8.00	1476.80	0.25
17	8.50	1480.00	0.22
18	9.00	1482.90	0.20
19	9.50	1485.40	0.17
20	10.00	1487.60	0.15
21	10.50	1489.80	0.15
22	%-1429.00	1491.80	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(1491.8 --4201.258)(1)/(1) = +5.6931E+03 g/L Carbon
(1491.8 --4201.258)(1)/(1)(12) = +4.7442E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Recalculate

Sample Run By: SL HOOD 00000

SLHB 5-17-96 ~~5693.1~~ / .1213 = ~~4.6934 E4~~ SLHB 5-17-96 1346 1459.46 / .1213 ~ 1.2032 E4

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00946 DUP Date: 05/17/96 Time: 00:12:41

Sample Size = 1 uL .1604g
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	15.60	87.18
3	1.51	293.00	94.68
4	2.01	695.20	57.85
5	2.51	977.60	28.89
6	3.01	1149.50	14.95
7	3.51	1251.60	8.16
8	4.01	1312.70	4.65
9	4.50	1349.70	2.74
10	5.00	1372.60	1.67
11	5.50	1387.30	1.06
12	6.00	1397.70	0.74
13	6.50	1406.10	0.60
14	7.00	1413.00	0.49
15	7.50	1419.80	0.48
16	8.00	1424.90	0.36
17	8.50	1429.60	0.33
18	9.00	1434.00	0.31
19	9.50	1437.80	0.26
20	10.00	1441.30	0.24
21	10.50	1444.50	0.22
22	11.00	1447.30	0.19

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(1447.3 - 5.2808)(1)/(1) = +1.4420E+03 g/L Carbon
(1447.3 - 5.2808)(1)/(1)(12) = +1.2017E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

$\frac{1442.0}{.1604} = 8.990^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00946 DUP Date: 05/17/96 Time: 01:16:13

Sample Size = 1 uL .1604g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.40	0.00
2	1.01	36.90	93.50
3	1.51	283.50	86.98
4	2.01	746.30	62.01
5	2.51	1252.40	40.41
6	3.01	1522.30	17.73
7	3.51	1652.60	7.88
8	4.01	1727.80	4.35
9	4.51	1772.20	2.51
10	5.00	1799.40	1.51
11	5.50	1816.20	0.93
12	6.00	1826.90	0.59
13	6.50	1834.80	0.43
14	7.00	1841.10	0.34
15	7.50	1846.30	0.28
16	8.00	1850.60	0.23
17	8.50	1854.40	0.20
18	9.00	1857.50	0.17
19	9.50	1860.40	0.16
20	10.00	1863.40	0.16
21	10.50	1865.80	0.13
22	11.00	1867.90	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(1867.9 - 32.34196)(1)/(1) = +1.8356E+03 g/L Carbon
(1867.9 - 32.34196)(1)/(1)(12) = +1.5296E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

$\frac{1835.6}{.1604} = 1.1443^{E4}$

1348

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00967 Date: 05/17/96 Time: 01:37:01

Sample Size = 1 uL .1167g
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	7.60	89.47
3	1.50	131.40	94.22
4	2.00	344.10	61.81
5	2.50	504.50	31.79
6	3.00	607.50	16.95
7	3.50	669.00	9.19
8	4.00	706.90	5.36
9	4.50	729.80	3.14
10	5.00	743.20	1.80
11	5.50	751.70	1.13
12	6.00	758.00	0.83
13	6.50	763.50	0.72
14	7.00	768.10	0.60
15	7.50	772.40	0.56
16	8.00	775.80	0.44
17	8.50	779.00	0.41
18	9.00	782.00	0.38
19	9.50	784.40	0.31
20	10.00	786.70	0.29
21	10.50	788.90	0.28
22	11.00	790.70	0.23

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(790.7 - 5.279916)(1)/(1) = +7.854E+02 g/L Carbon
(790.7 - 5.279916)(1)/(1)(12) = +6.545E+01 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{785.4}{.1167} = 6.730E3$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00967 Date: 05/17/96 Time: 01:49:14

Sample Size = 1 uL .1167g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	2.60	69.23
3	1.50	14.10	81.56
4	2.00	156.30	90.98
5	2.50	468.30	66.62
6	3.00	758.90	38.29
7	3.50	898.20	15.51
8	4.00	965.00	6.92
9	4.50	1001.50	3.64
10	5.00	1022.30	2.03
11	5.50	1033.10	1.05
12	6.00	1039.90	0.65
13	6.50	1045.20	0.51
14	7.00	1049.20	0.38
15	7.50	1052.50	0.31
16	8.00	1055.10	0.25
17	8.50	1057.70	0.25
18	9.00	1059.80	0.20
19	9.50	1061.60	0.17
20	10.00	1063.30	0.16
21	10.50	1064.80	0.14
22	11.00	1066.10	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(1066.1 - 32.33655)(1)/(1) = +1.0338E+03 g/L Carbon
(1066.1 - 32.33655)(1)/(1)(12) = +8.6147E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{1033.8}{.1167} = 8.858^{E3}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00967 DUP Date: 05/17/96 Time: 02:01:35

Sample Size = 1 uL .1380g
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	7.60	88.16
3	1.50	154.00	95.06
4	2.00	416.00	62.98
5	2.50	604.40	31.17
6	3.00	723.80	16.50
7	3.50	795.70	9.04
8	4.00	841.30	5.42
9	4.50	869.80	3.28
10	5.00	887.20	1.96
11	5.50	897.70	1.17
12	6.00	905.30	0.84
13	6.50	911.60	0.69
14	7.00	916.90	0.58
15	7.50	921.60	0.51
16	8.00	925.30	0.40
17	8.50	928.80	0.38
18	9.00	931.80	0.32
19	9.50	934.70	0.31
20	10.00	937.30	0.28
21	10.50	939.50	0.23
22	11.00	941.40	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(941.4 - 5.279439)(1)/(1) = +9.361E+02 g/L Carbon
(941.4 - 5.279439)(1)/(1)(12) = +7.801E+01 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{936.1}{.1380} = 6.783\,E3$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00967 DUP Date: 05/17/96 Time: 02:15:34

Sample Size = 1 uL .1380g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.90	0.00
2	1.01	30.30	93.73
3	1.50	229.70	86.81
4	2.00	599.70	61.70
5	2.50	893.50	32.88
6	3.00	1029.80	13.24
7	3.50	1094.70	5.93
8	4.00	1131.60	3.26
9	4.50	1154.00	1.94
10	5.00	1166.70	1.09
11	5.50	1174.00	0.62
12	6.00	1179.90	0.50
13	6.50	1184.70	0.41
14	7.00	1188.40	0.31
15	7.50	1191.40	0.25
16	8.00	1194.10	0.23
17	8.50	1196.30	0.18
18	9.00	1198.50	0.18
19	9.50	1200.30	0.15
20	10.00	1201.70	0.12
21	10.50	1203.30	0.13
22	11.00	1204.60	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(1204.6 - 32.33657)(1)/(1) = +1.1723E+03 g/L Carbon
(1204.6 - 32.33657)(1)/(1)(12) = +9.7689E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{1172.3}{.1380} = 8.494^{E3}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00960 Date: 05/17/96 Time: 02:29:50

Sample Size = 1 uL .10129
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	3.90	79.49
3	1.50	51.30	92.40
4	2.00	201.80	74.58
5	2.50	351.10	42.52
6	3.00	446.70	21.40
7	3.50	504.60	11.47
8	4.00	540.10	6.57
9	4.50	562.60	4.00
10	5.00	576.20	2.36
11	5.50	583.60	1.27
12	6.00	589.50	1.00
13	6.50	594.50	0.84
14	7.00	598.40	0.65
15	7.50	602.10	0.61
16	8.00	605.30	0.53
17	8.50	608.00	0.44
18	9.00	610.70	0.44
19	9.50	612.80	0.34
20	10.00	614.90	0.34
21	10.50	616.60	0.28
22	11.00	618.50	0.31

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(618.5 - 5.27896)(1)/(1) = +6.132E+02 g/L Carbon
(618.5 - 5.27896)(1)/(1)(12) = +5.110E+01 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{613.2}{.10129} = 6.059^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00960 Date: 05/17/96 Time: 02:48:18

Sample Size = 1 uL .1012g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 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	49.80	96.79
3	1.50	284.50	82.50
4	2.00	603.80	52.88
5	2.50	753.20	19.84
6	3.00	818.00	7.92
7	3.50	852.20	4.01
8	4.00	871.60	2.23
9	4.50	880.50	1.01
10	5.00	886.60	0.69
11	5.50	891.20	0.52
12	6.00	894.50	0.37
13	6.50	897.50	0.33
14	7.00	899.80	0.26
15	7.50	901.80	0.22
16	8.00	903.50	0.19
17	8.50	905.10	0.18
18	9.00	906.30	0.13
19	9.50	907.60	0.14
20	10.00	908.60	0.11
21	10.50	909.90	0.14
22	11.00	910.80	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(910.8 - 32.34193)(1)/(1) = +8.785E+02 g/L Carbon
(910.8 - 32.34193)(1)/(1)(12) = +7.320E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

8785 / .1012 = 8.680 E3

Sample Run By: SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00960 DUP Date: 05/17/96 Time: 03:00:16

Sample Size = 1 uL .1770g
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	9.80	88.78
3	1.50	161.40	93.93
4	2.00	448.00	63.97
5	2.50	681.10	34.22
6	3.00	830.90	18.03
7	3.50	923.40	10.02
8	4.00	980.30	5.80
9	4.50	1016.10	3.52
10	5.00	1039.30	2.23
11	5.50	1054.80	1.47
12	6.00	1065.70	1.02
13	6.50	1074.20	0.79
14	7.00	1081.20	0.65
15	7.50	1087.10	0.54
16	8.00	1092.40	0.49
17	8.50	1097.20	0.44
18	9.00	1101.20	0.36
19	9.50	1104.70	0.32
20	10.00	1108.10	0.31
21	10.50	1111.00	0.26
22	11.00	1113.80	0.25

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(1113.8 - 5.27855)(1)/(1) = +1.1085E+03 g/L Carbon
(1113.8 - 5.27855)(1)/(1)(12) = +9.2377E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

$\frac{1108.5}{.1770} = 6.262\,E3$

1355

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00960 DUP Date: 05/17/96 Time: 03:12:43

Sample Size = 1 uL .1770g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.50	0.00
2	1.01	37.30	93.30
3	1.51	289.90	87.13
4	2.00	763.50	62.03
5	2.50	1148.60	33.53
6	3.00	1330.10	13.65
7	3.50	1416.80	6.12
8	4.00	1468.40	3.51
9	4.50	1501.50	2.20
10	5.00	1523.30	1.43
11	5.50	1537.20	0.90
12	6.00	1545.60	0.54
13	6.50	1552.10	0.42
14	7.00	1557.40	0.34
15	7.50	1561.60	0.27
16	8.00	1565.40	0.24
17	8.50	1568.40	0.19
18	9.00	1571.20	0.18
19	9.50	1573.90	0.17
20	10.00	1576.00	0.13
21	10.50	1578.00	0.13
22	11.00	1579.90	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(1579.9 - 32.34198)(1)/(1) = +1.5476E+03 g/L Carbon
(1579.9 - 32.34198)(1)/(1)(12) = +1.2896E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

$\frac{1547.6}{.1770} = 8.743^{E3}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00997 Date: 05/17/96 Time: 03:25:07

Sample Size = 1 uL .1368g
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	6.10	67.21
3	1.50	53.70	88.64
4	2.00	179.50	70.08
5	2.50	332.20	45.97
6	3.00	445.80	25.48
7	3.50	517.90	13.92
8	4.00	561.60	7.78
9	4.50	588.60	4.59
10	5.00	606.30	2.92
11	5.50	617.90	1.88
12	6.00	625.90	1.28
13	6.50	632.10	0.98
14	7.00	638,20	0.96
15	7.50	642.80	0.72
16	8.00	647.40	0.71
17	8.50	651.30	0.60
18	9.00	654.50	0.49
19	9.50	657.80	0.50
20	10.00	660.80	0.45
21	10.50	663.40	0.39
22	11.00	665.80	0.36

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(665.8 - 5.278967)(1)/(1) = +6.605E+02 g/L Carbon
(665.8 - 5.278967)(1)/(1)(12) = +5.504E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

$\frac{660.5}{.1368} = 4.828^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00997 Date: 05/17/96 Time: 03:38:40

Sample Size = 1 uL .1368g
Dil Factor = 1
Blank ID # =
Blank Value = 2.94 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	2.90	0.00
2	1.01	108.10	97.32
3	1.50	548.50	80.29
4	2.01	1018.10	46.13
5	2.51	1552.40	34.42
6	3.01	1895.30	18.09
7	3.51	2039.90	7.09
8	4.00	2116.90	3.64
9	4.50	2163.20	2.14
10	5.00	2192.90	1.35
11	5.50	2212.50	0.89
12	6.00	2224.90	0.56
13	6.50	2233.20	0.37
14	7.00	2239.80	0.29
15	7.50	2245.30	0.24
16	8.00	2249.60	0.19
17	8.50	2253.30	0.16
18	9.00	2256.70	0.15
19	9.50	2259.40	0.12
20	10.00	2262.10	0.12
21	10.50	2266.60	0.20
22	11.00	2268.90	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 32.33641 micrograms carbon
BLANK FACTOR = 32.33641 / 10.99878 = +2.9E+00 ug/min Carbon

SAMPLE RESULTS:
(2268.9 - 32.34198)(1)/(1) = +2.2366E+03 g/L Carbon
(2268.9 - 32.34198)(1)/(1)(12) = +1.8638E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

1358

$\frac{2236.6}{.1368} = 1.6349$ EK

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00997 DUP Date: 05/17/96 Time: 03:50:36

Sample Size = 1 uL .1857g
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.40	0.00
2	1.01	5.20	53.85
3	1.51	51.40	89.88
4	2.00	200.60	74.38
5	2.50	401.20	50.00
6	3.00	554.80	27.69
7	3.50	654.60	15.25
8	4.00	718.70	8.92
9	4.50	761.30	5.60
10	5.00	790.00	3.63
11	5.50	809.60	2.42
12	6.00	823.40	1.68
13	6.50	833.90	1.26
14	7.00	842.10	0.97
15	7.50	848.70	0.78
16	8.00	855.00	0.74
17	8.50	860.30	0.62
18	9.00	865.00	0.54
19	9.50	869.00	0.46
20	10.00	873.20	0.48
21	10.50	876.60	0.39
22	11.00	879.80	0.36

USER INPUT BLANK VALUE
BLANK VALUE = 5.279414 micrograms carbon
BLANK FACTOR = 5.279414 / 10.99878 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(879.8 - 5.278953)(1)/(1) = +8.745E+02 g/L Carbon
(879.8 - 5.278953)(1)/(1)(12) = +7.288E+01 Molar Carbon

Sample Run By: SL HOOD 00000

$\frac{874.5}{.1857} = 4.724\ E3$

1359

HC-SD-WM-DP-182, REV. 1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T00997 DUP Date: 05/17/96 Time: 04:04:17

Sample Size = 1 uL .1857g
Dil Factor = 1
Blank ID # =
Blank Value = 2.49 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.80	0.00
2	1.01	115.20	96.70
3	1.50	665.20	82.68
4	2.00	1305.00	49.03
5	2.50	1944.60	32.89
6	3.00	2270.80	14.36
7	3.50	2398.00	5.30
8	4.00	2465.90	2.75
9	4.50	2514.60	1.94
10	5.00	2548.60	1.33
11	5.50	2574.70	1.01
12	6.00	2593.80	0.74
13	6.50	2606.10	0.47
14	7.00	2614.60	0.33
15	7.50	2621.40	0.26
16	8.00	2627.00	0.21
17	8.50	2631.70	0.18
18	9.00	2635.90	0.16
19	9.50	2639.60	0.14
20	10.00	2643.00	0.13
21	10.50	2646.00	0.11
22	11.00	2648.50	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 27.38696 micrograms carbon
BLANK FACTOR = 27.38696 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(2648.5 - 27.39167)(1)/(1) = +2.6211E+03 g/L Carbon
(2648.5 - 27.39167)(1)/(1)(12) = +2.1843E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL HOOD 00000

$\frac{2621.1}{.1857} = 1.4160^{E4}$

1360

LABCORE Data Entry Template for Worklist# 6617

Analyst: PTM **Instrument:** CARB2 _____ **Book#** TIC 22N12B
TOC 24N12A

Method: LA-342-100 Rev/Mod d-G

Worklist Comment: U-105 FOR TIC/TOC ACID PERSULFATE RTS!

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	SOLID		
2	STD				@TICTOC1	SOLID		
3	SAMPLE	S96T000974	0		@TICTOC1	SOLID	96000092	U-105 (R)
	Analytes Requested:	TIC-02 , TOC-02						
4	DUP	S96T000974	0		@TICTOC1	SOLID		
5	SPK	S96T000974	0		@TICTOC1	SOLID		
6	SAMPLE	S96T000983	0		@TICTOC1	SOLID	96000092	U-105 (R)
	Analytes Requested:	TIC-02 , TOC-02						
7	DUP	S96T000983	0		@TICTOC1	SOLID		
8	SAMPLE	S96T000990	0		@TICTOC1	SOLID	96000092	U-105 (R)
	Analytes Requested:	TIC-02 , TOC-02						
9	DUP	S96T000990	0		@TICTOC1	SOLID		
10	SAMPLE	S96T002142	0		@TICTOC1	LIQUID	96000422	U-107
	Analytes Requested:	TIC-02 , TOC-02						
11	DUP	S96T002142	0		@TICTOC1	LIQUID		

Final page for worklist # 6617

See Attached Sheet
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# 6617

Analyst: pjm **Instrument:** CARB2 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: U-105 FOR TIC/TOC ACID PERSULFATE RTS!

Seq	Type	Sample#	R	A	Test		Matrix	Actual	Found	DL or Yield	Unit
1	BLNK			0	@TICTOC1	TIC-02	SOLID	1	1.40E+0	1.400	ug/g
1	BLNK			0	@TICTOC1	TOC-02	SOLID	1	4.20E+0	4.200	ug/g
2	STD			0	@TICTOC1	TIC-02	SOLID	6.02E+02	5.02E+2	100.000	% Recovery
2	STD			0	@TICTOC1	TOC-02	SOLID	3.00E+03	2.83E+3	94.333	% Recovery
3	SAMPLE	S96T000974		0	@TICTOC1	TIC-02	SOLID	N/A	7.84E+03	5.000	ug/g
3	SAMPLE	S96T000974		0	@TICTOC1	TOC-02	SOLID	N/A	9.53E+03	40.000	ug/g
4	DUP	S96T000974		0	@TICTOC1	TIC-02	SOLID	7.84E+3	7.95E+3	1.393	RPD
4	DUP	S96T000974		0	@TICTOC1	TOC-02	SOLID	9.53E+3	9.48E+3	0.526	RPD
5	SPK	S96T000974		0	@TICTOC1	TIC-02	SOLID	1.00E+02	9.07E+01	90.700	% Recovery
5	SPK	S96T000974		0	@TICTOC1	TOC-02	SOLID	1.00E+02	8.66E+01	86.600	% Recovery
6	SAMPLE	S96T000983		0	@TICTOC1	TIC-02	SOLID	N/A	1.06E+04	5.000	ug/g
6	SAMPLE	S96T000983		0	@TICTOC1	TOC-02	SOLID	N/A	1.28E+04	40.000	ug/g
7	DUP	S96T000983		0	@TICTOC1	TIC-02	SOLID	1.06E+4	1.02E+4	3.846	RPD
7	DUP	S96T000983		0	@TICTOC1	TOC-02	SOLID	1.28E+4	1.22E+4	4.800	RPD
8	SAMPLE	S96T000990		0	@TICTOC1	TIC-02	SOLID	N/A	8.17E+03	5.000	ug/g
8	SAMPLE	S96T000990		0	@TICTOC1	TOC-02	SOLID	N/A	9.98E+03	40.000	ug/g
9	DUP	S96T000990		0	@TICTOC1	TIC-02	SOLID	8.17E+3	8.09E+3	0.984	RPD
9	DUP	S96T000990		0	@TICTOC1	TOC-02	SOLID	9.98E+3	9.73E+3	2.537	RPD
10	SAMPLE	S96T002142		0	@TICTOC1	TIC-02	LIQUID	N/A	6.86E+03	5.000	ug/mL
10	SAMPLE	S96T002142		0	@TICTOC1	TOC-02	LIQUID	N/A	4.92E+03	40.000	ug/mL
11	DUP	S96T002142		0	@TICTOC1	TIC-02	LIQUID	6.86E+3	6.83E+3	0.438	RPD
11	DUP	S96T002142		0	@TICTOC1	TOC-02	LIQUID	4.92E+3	4.61E+3	6.506	RPD

Final page for worklist# 6617

[signature] 6-4-96
Analyst Signature **Date**

Analyst Signature **Date**

Robert N Schroeder 6/5/96
Reviewer Signature **Date**

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

worklistrpt Version 2.1 05/15/95
6/29/96 08:39

LABCORE Data Entry Template for Worklist# 6617

Analyst: BMcCown **Instrument:** CARB2 **Book #** TIC 22N12B TOC 24N12A

Method: LA-342-100 Rev/Mod C-0

Worklist Comment: U-105 FOR TIC/TOC ACID PERSULFATE RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	1.4	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	4.2	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02E2	6.02E2	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00E3	2.82E3	N/A	ug/g
96000092	U-105 (R)	3	SAMPLE	S96T000974	0		@TICTOC1 TIC-02	SOLID	N/A	7.84E3		ug/g
96000092	U-105 (R)	3	SAMPLE	S96T000974	0		@TICTOC1 TOC-02	SOLID	N/A	9.53E3		ug/g
96000092	U-105 (R)	4	DUP	S96T000974	0		@TICTOC1 TIC-02	SOLID	7.84E3	7.94E3	N/A	ug/g
96000092	U-105 (R)	4	DUP	S96T000974	0		@TICTOC1 TOC-02	SOLID	9.53E3	9.48E3	N/A	ug/g
96000092	U-105 (R)	5	SPK	S96T000974	0		@TICTOC1 TIC-02	SOLID	100	91	N/A	ug/g
96000092	U-105 (R)	5	SPK	S96T000974	0		@TICTOC1 TOC-02	SOLID	100	87	N/A	ug/g
96000092	U-105 (R)	6	SAMPLE	S96T000983	0		@TICTOC1 TIC-02	SOLID	N/A	1.06E4		ug/g
96000092	U-105 (R)	6	SAMPLE	S96T000983	0		@TICTOC1 TOC-02	SOLID	N/A	1.28E4		ug/g
96000092	U-105 (R)	7	DUP	S96T000983	0		@TICTOC1 TIC-02	SOLID	1.06E4	1.02E4	N/A	ug/g
96000092	U-105 (R)	7	DUP	S96T000983	0		@TICTOC1 TOC-02	SOLID	1.28E4	1.22E4	N/A	ug/g
96000092	U-105 (R)	8	SAMPLE	S96T000990	0		@TICTOC1 TIC-02	SOLID	N/A	8.17E3		ug/g
96000092	U-105 (R)	8	SAMPLE	S96T000990	0		@TICTOC1 TOC-02	SOLID	N/A	9.98E3		ug/g
96000092	U-105 (R)	9	DUP	S96T000990	0		@TICTOC1 TIC-02	SOLID	8.17E3	8.09E3	N/A	ug/g
96000092	U-105 (R)	9	DUP	S96T000990	0		@TICTOC1 TOC-02	SOLID	9.98E3	9.73E3	N/A	ug/g

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# 6617

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT

Final page for worklist # 6617

BLMcCown 6/3/96
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.

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Sample Type	Sample Size in g	(SS)	0.0000	0.0000
BLNK	Dilution Factor	(DF)	1	1
Worklist	µg of Carbon in Sample	(C1)	5.7	19
6617	µg of Carbon from Baseline	(C2)	7.1	23.2

Test Code
@TICTOC1

Matrix
SOLID

Batch Number
96005741

Rerun
0

µg of Carbon = |C1-C2|

Sample Prep
N/A

Sample
BLNK

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
PJM

Date Complete
06/04/96

Analysis Date
06/03/96

Analysis Time

Sample Point
U-105

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon	1.40E+00	4.20E+00

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schneider	Date:	6/5/96

BLANK.WB1 REV 1.0 342100ML

WORKBOOK PAGE: STD2

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	1.0000	0.2000
STD	Dilution Factor	(DF)	1	1
Work List	Final Coulometer Reading in µg	(C1)	608.8	588.3
6617	µg of Carbon from Baseline	(C2)	7.1	23.2
Test Code	Standard Book Number		22N12B	24N12A
@TICTOC1	Standard Value (µg/ml)		602	3000

Matrix
LIQUID

Batch Number
96005741

Reading
0

Sample Prep
N/A

Sample Wt
STD

Instrument Code
CARB2

Prepared By
RTS

Chemist ID
RWS

Analyst ID
PJM

Date Complete
06/04/96

Analysis Date
06/03/96

Analysis Time

Sample Point
U-105

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	3.00E+03
QC Found in µg/mL	6.02E+02	2.83E+03
Percent Standard Recovery	100.0	94.2

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/5/96

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1264	0.1264
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	998.5	1227.5
6617	µg of Carbon from Baseline	(C2)	7.1	23.2
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96005741
Rerun	0
Sample Prep	N/A
Sample	S96T000974
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	PJM
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	7.84E+03	9.53E+03

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/5/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0510	0.0510
DUP	Dilution Factor	(DF)	1	1
Work Station	µg of Carbon in Sample	(C1)	412.4	506.6
6617	µg of Carbon from Baseline	(C2)	7.1	23.2
Testcode	Known µg of C from Original Sample		7.84E+3	9.53E+3
@TICTOC1				

Matrix	SOLID
Batch Number	96005741
Rerun	0
Sample Prep	N/A
Sample #	S96T000974
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	PJM
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	7.95E+03	9.48E+03
RPD (of Sam and Dup Results)	1.4%	0.5%

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/5/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (C-0) SOLIDS

Type	Sample Vial Data		TIC	TOC
SPK	Sample Size in g	(SS)	0.1264	0.1264
Work List	Final Coulometer Reading in µg	(C1)	998.5	1227.5
6617	Spiked Vial Data			
Test Code	Sample Size in g	(SPK SS)	0.0592	0.0592
@TICTOC1	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg	(C3)	697.3	758.1
SOLID	Spike Book Number		22N12B	24N12A
Batch Number	Spike Standard Value in µg/ml		602	3000
96005741	Spike Concentration in µg	(SPK CONC)	301	300

Rerun #
0

Sample Prep
N/A

Sample #
S96T000974

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
PJM

Date Complete
06/04/96

Analysis Date
06/03/96

Analysis Time

Sample Point
U-105

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	3.00E+03
QC Found in µg/mL	5.46E+02	2.60E+03
Percent Spike Recovery	90.7	86.6

RW Schroeder 6/5/96

WORKBOOK PAGE: SAM6

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0949	0.0949
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1016.6	1239.3
6617	µg of Carbon from Baseline	(C2)	7.1	- 23.2
Test Code				
@TICTOC1				

Matrix
SOLID

Batch Number
96005741

Rerun
0

Sample Prep
N/A

Sample
S96T000983

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
PJM

Date Complete
06/04/96

Analysis Date
06/03/96

Analysis Time

Sample Point
U-105

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	1.06E+04	1.28E+04

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schwerdt	Date:	6/5/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP7

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0757	0.0757
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	780.4	946.4
6617	µg of Carbon from Baseline	(C2)	7.1	23.2
Test Code	Known µg of C from Original Sample		1.06E+4	1.28E+4
@TICTOC1				

Matrix: SOLID

Batch Number: 96005741

Rerun: 0

Sample Prep: N/A

Sample #: S96T000983

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: PJM

Date Complete: 06/04/96

Analysis Date: 06/03/96

Analysis Time:

Sample Point: U-105

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	1.02E+04	1.22E+04
RPD (of Sam and Dup Results)	~~3.7%~~ 3.8 RWS 6/5/96	4.8%

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/5/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM8

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0695	0.0695
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	575	716.6
6617	µg of Carbon from Baseline	(C2)	7.1	23.2
Test Code				
@TICTOC1				

Matrix: SOLID

Batch Number: 96005741

Rerun: 0

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

Sample Prep: N/A

Sample #: S96T000990

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: PJM

Date Complete: 06/04/96

Analysis Date: 06/03/96

Analysis Time:

Sample Point: U-105

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon/g	8.17E+03	9.98E+03

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/5/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP9

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0897	0.0897
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	733	896.4
6617	µg of Carbon from Baseline	(C2)	7.1	23.2
Test Code	Known µg of C from Original Sample		8.17E+3	9.98E+3
@TICTOC1				

Matrix	SOLID
Batch Number	96005741
Rerun	0
Sample Prep	N/A
Sample	S96T000990
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	PJM
Date Completed	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	8.09E+03	9.73E+03
RPD (of Sam and Dup Results)	~~1.6%~~ 0.98	2.5%

RWS 6/5/96

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/5/96

SAMPLE.WB1 REV 1.0 342100ML

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE Date: 06/02/96 Time: 19:19:51

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	0.20	0.00
2	1.01	0.50	60.00
3	1.51	1.00	50.00
4	2.01	1.50	33.33
5	2.51	1.90	21.05
6	3.01	2.40	20.83
7	3.51	2.80	14.29
8	4.00	3.20	12.50
9	4.50	3.40	5.88
10	5.00	3.60	5.56
11	5.50	3.90	7.69
12	6.00	4.30	9.30
13	6.50	4.50	4.44
14	7.00	4.90	8.16
15	7.50	5.10	3.92
16	8.00	5.50	7.27
17	8.50	5.70	3.51
18	9.00	6.10	6.56
19	9.50	6.40	4.69
20	10.00	6.60	3.03
21	10.50	6.80	2.94
22	11.00	7.10	4.23

BLANK VALUE = 7.1 micrograms carbon
BLANK FACTOR = 7.1 / 10.99988 = +6.5E-01 ug/min Carbon

Sample Run By: PJ McCown 10/3/96
PJ MCCOWN 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASE Date: 06/02/96 Time: 19:33:42

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	0.20	0.00
2	1.00	0.80	75.00
3	1.50	2.40	66.67
4	2.00	5.70	57.89
5	2.50	10.10	43.56
6	3.00	13.50	25.19
7	3.50	15.70	14.01
8	4.00	16.80	6.55
9	4.50	17.50	4.00
10	5.00	18.10	3.31
11	5.50	18.50	2.16
12	6.00	18.80	1.60
13	6.50	19.30	2.59
14	7.00	19.90	3.02
15	7.50	20.50	2.93
16	8.00	21.00	2.38
17	8.50	21.40	1.87
18	9.00	21.80	1.83
19	9.50	22.20	1.80
20	10.00	22.70	2.20
21	10.50	22.90	0.87
22	11.00	23.20	1.29

BLANK VALUE = 23.2 micrograms carbon
BLANK FACTOR = 23.2 / 10.99792 = +2.11E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 22N12B STD Date: 06/03/96 Time: 01:21:31

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .65 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	1.01	5.10	92.16
3	1.51	76.10	93.30
4	2.00	224.80	66.15
5	2.50	371.30	39.46
6	3.00	475.50	21.91
7	3.50	541.30	12.16
8	4.00	578.60	6.45
9	4.50	595.90	2.90
10	5.00	602.10	1.03
11	5.50	604.60	0.41
12	6.00	605.70	0.18
13	6.50	606.40	0.12
14	7.00	606.80	0.07
15	7.50	607.00	0.03
16	8.00	607.40	0.07
17	8.50	607.60	0.03
18	9.00	607.90	0.05
19	9.50	608.10	0.03
20	10.00	608.40	0.05
21	10.50	608.50	0.02
22	11.00	608.80	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 7.148651 micrograms carbon
BLANK FACTOR = 7.148651 / 10.99792 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(608.8 - 7.14989)(1)/(1000) = +6.017E-01 g/L Carbon
(608.8 - 7.14989)(1)/(1000)(12) = +5.014E-02 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

1.0 mL

1376 $\frac{601.7}{602}$ = 99.95%

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 24N12A STD Date: 06/03/96 Time: 01:35:23

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	1.20	83.33
3	1.50	10.90	88.99
4	2.00	76.20	85.70
5	2.50	235.50	67.64
6	3.00	408.40	42.34
7	3.50	507.10	19.46
8	4.00	555.80	8.76
9	4.50	575.60	3.44
10	5.00	581.00	0.93
11	5.50	583.10	0.36
12	6.00	583.90	0.14
13	6.50	584.50	0.10
14	7.00	585.10	0.10
15	7.50	585.50	0.07
16	8.00	586.20	0.12
17	8.50	586.50	0.05
18	9.00	587.00	0.09
19	9.50	587.40	0.07
20	10.00	587.60	0.03
21	10.50	588.00	0.07
22	11.00	588.30	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 23.20562 micrograms carbon
BLANK FACTOR = 23.20562 / 10.99792 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(588.3 - 23.21526)(1)/(200) = +2.825E+00 g/L Carbon
(588.3 - 23.21526)(1)/(200)(12) = +2.355E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.200 mL

1377 $\frac{2825}{3.00^{E3}} = 94.17\%$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 06/03/96 Time: 01:48:44

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .65 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	1.40	28.57
3	1.51	1.70	17.65
4	2.01	2.20	22.73
5	2.50	2.50	12.00
6	3.00	2.80	10.71
7	3.50	3.10	9.68
8	4.00	3.30	6.06
9	4.50	3.40	2.94
10	5.00	3.60	5.56
11	5.50	3.80	5.26
12	6.00	4.00	5.00
13	6.50	4.20	4.76
14	7.00	4.40	4.55
15	7.50	4.50	2.22
16	8.00	4.70	4.26
17	8.50	4.80	2.08
18	9.00	5.00	4.00
19	9.50	5.20	3.85
20	10.00	5.30	1.89
21	10.50	5.50	3.64
22	11.00	5.70	3.51

USER INPUT BLANK VALUE
BLANK VALUE = 7.148651 micrograms carbon
BLANK FACTOR = 7.148651 / 10.99792 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(5.7 - 7.151631)(1)/(1) = < 5.00 E-3 g/L Carbon
(5.7 - 7.151631)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

| 5.70 - 7.10 | = 1.4

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 06/03/96 Time: 02:02:52

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 ug/minute C

Analyst : PJ MCCOWN
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	3.70	75.68
4	2.00	7.90	53.16
5	2.50	11.50	31.30
6	3.00	13.40	14.18
7	3.50	14.40	6.94
8	4.00	15.00	4.00
9	4.50	15.30	1.96
10	5.00	15.60	1.92
11	5.50	16.00	2.50
12	6.00	16.40	2.44
13	6.50	16.70	1.80
14	7.00	17.00	1.76
15	7.50	17.30	1.73
16	8.00	17.60	1.70
17	8.50	17.90	1.68
18	9.00	18.20	1.65
19	9.50	18.40	1.09
20	10.00	18.60	1.08
21	10.50	18.90	1.59
22	11.00	19.00	0.53

USER INPUT BLANK VALUE
BLANK VALUE = 23.20562 micrograms carbon
BLANK FACTOR = 23.20562 / 10.99792 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(19 - 23.20966)(1)/(1) = < 5.00 E-3 g/L Carbon
(19 - 23.20966)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

|19.00 - 23.20| = 4.2

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000974 Date: 06/03/96 Time: 02:15:06

Sample Size = 1 uL .1264g
Dil Factor = 1
Blank ID # =
Blank Value = .65 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	0.00	0.00
2	1.01	3.10	100.00
3	1.51	121.20	97.44
4	2.00	445.70	72.81
5	2.50	682.20	34.67
6	3.00	821.20	16.93
7	3.50	899.90	8.75
8	4.00	944.60	4.73
9	4.50	966.00	2.22
10	5.00	974.50	0.87
11	5.50	979.50	0.51
12	6.00	982.60	0.32
13	6.50	985.30	0.27
14	7.00	987.50	0.22
15	7.50	989.40	0.19
16	8.00	991.10	0.17
17	8.50	992.60	0.15
18	9.00	994.00	0.14
19	9.50	995.20	0.12
20	10.00	996.40	0.12
21	10.50	997.60	0.12
22	11.00	998.50	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 7.148651 micrograms carbon
BLANK FACTOR = 7.148651 / 10.99792 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(998.5 - 7.149896)(1)/(1) = +9.914E+02 g/L Carbon
(998.5 - 7.149896)(1)/(1)(12) = +8.261E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.1264g

$$\frac{991.4}{.1264g} = 7.843^{E3}$$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000974 Date: 06/03/96 Time: 02:31:25

Sample Size = 1 uL .1264g
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	1.60	62.50
3	1.50	20.00	92.00
4	2.00	104.20	80.81
5	2.50	272.40	61.75
6	3.00	557.20	51.11
7	3.50	831.20	32.96
8	4.00	1002.80	17.11
9	4.50	1095.00	8.42
10	5.00	1148.30	4.64
11	5.50	1178.50	2.56
12	6.00	1193.60	1.27
13	6.50	1202.00	0.70
14	7.00	1207.90	0.49
15	7.50	1212.50	0.38
16	8.00	1216.20	0.30
17	8.50	1219.10	0.24
18	9.00	1221.60	0.20
19	9.50	1223.50	0.16
20	10.00	1225.10	0.13
21	10.50	1226.40	0.11
22	11.00	1227.50	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(1227.5 - 23.21142)(1)/(1) = +1.2043E+03 g/L Carbon
(1227.5 - 23.21142)(1)/(1)(12) = +1.0036E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.1264g

$\frac{1204.3}{.1264} = 9.528^{E3}$

1381

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000974DUP Date: 06/03/96 Time: 02:44:23

Sample Size = 1 uL .0510g
Dil Factor = 1
Blank ID # =
Blank Value = .65 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	4.80	77.08
3	1.50	79.70	93.98
4	2.00	194.30	58.98
5	2.50	281.70	31.03
6	3.01	339.40	17.00
7	3.50	373.40	9.11
8	4.00	390.40	4.35
9	4.50	397.70	1.84
10	5.00	401.10	0.85
11	5.50	403.20	0.52
12	6.00	404.40	0.30
13	6.50	405.50	0.27
14	7.00	406.50	0.25
15	7.50	407.30	0.20
16	8.00	408.20	0.22
17	8.50	409.00	0.20
18	9.00	409.70	0.17
19	9.50	410.40	0.17
20	10.00	411.20	0.19
21	10.50	411.90	0.17
22	11.00	412.40	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(412.4 - 7.150972)(1)/(1) = +4.052E+02 g/L Carbon
(412.4 - 7.150972)(1)/(1)(12) = +3.377E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0510g

$\frac{405.2}{.0510g} = 7.945^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000974DUP Date: 06/03/96 Time: 02:56:47

Sample Size = 1 uL .051Dcy
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 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	5.90	88.14
3	1.50	67.20	91.22
4	2.00	204.50	67.14
5	2.50	340.10	39.87
6	3.00	417.00	18.44
7	3.50	457.90	8.93
8	4.00	478.00	4.21
9	4.50	486.40	1.73
10	5.00	491.00	0.94
11	5.50	494.50	0.71
12	6.00	496.80	0.46
13	6.50	498.40	0.32
14	7.00	499.90	0.30
15	7.50	501.10	0.24
16	8.00	502.40	0.26
17	8.50	503.30	0.18
18	9.00	504.00	0.14
19	9.50	504.80	0.16
20	10.00	505.50	0.14
21	10.50	506.00	0.10
22	11.00	506.60	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(506.6 - 23.20752)(1)/(1) = +4.834E+02 g/L Carbon
(506.6 - 23.20752)(1)/(1)(12) = +4.028E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0510g
~~+ 5~~ PJM
6/3/96

$\frac{483.4}{.0510g} = 9.478E3$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000974SPK Date: 06/03/96 Time: 03:09:52

Sample Size = 1 uL .0592g+ .500ml 22N12B
Dil Factor = 1
Blank ID # =
Blank Value = .65 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	4.20	80.95
3	1.50	72.30	94.19
4	2.00	237.30	69.53
5	2.50	414.80	42.79
6	3.00	538.10	22.91
7	3.50	613.00	12.22
8	4.00	656.20	6.58
9	4.50	676.90	3.06
10	5.00	684.00	1.04
11	5.50	687.20	0.47
12	6.00	688.90	0.25
13	6.50	690.20	0.19
14	7.00	691.20	0.14
15	7.50	692.10	0.13
16	8.00	693.00	0.13
17	8.50	694.00	0.14
18	9.00	694.50	0.07
19	9.50	695.30	0.12
20	10.00	696.00	0.10
21	10.50	696.60	0.09
22	11.00	697.30	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(697.3 - 7.148592)(1)/(1) = +6.902E+02 g/L Carbon
(697.3 - 7.148592)(1)/(1)(12) = +5.751E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0592 g
+ .500ml 22N12B

$$\frac{697.30}{\frac{998.50}{.7264} \times .0592 + .500} = \frac{697.30}{767.65} = 90.84\%$$

1384

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000974SPK Date: 06/03/96 Time: 03:22:07

Sample Size = 1 uL .0592g + .100ml 24N12A
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 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	5.80	87.93
3	1.51	46.10	87.42
4	2.01	178.60	74.19
5	2.51	430.60	58.52
6	3.01	599.70	28.20
7	3.51	676.00	11.29
8	4.01	716.10	5.60
9	4.50	734.20	2.47
10	5.00	740.90	0.90
11	5.50	745.10	0.56
12	6.00	747.70	0.35
13	6.50	749.80	0.28
14	7.00	751.20	0.19
15	7.50	752.60	0.19
16	8.00	753.40	0.11
17	8.50	754.60	0.16
18	9.00	755.50	0.12
19	9.50	756.10	0.08
20	10.00	757.00	0.12
21	10.50	757.50	0.07
22	11.00	758.10	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(758.1 - 23.21315)(1)/(1) = +7.349E+02 g/L Carbon
(758.1 - 23.21315)(1)/(1)(12) = +6.124E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0592g
+ .100 24N12A

$$\frac{758.10}{\frac{1227.50}{.1264} \times .0592 + 300} = \frac{758.10}{874.91} = 86.65\%$$

1385

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000983 Date: 06/03/96 Time: 03:34:35

Sample Size = 1 uL .0949g
Dil Factor = 1
Blank ID # =
Blank Value = .65 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	4.30	83.72
3	1.51	127.00	96.61
4	2.00	411.00	69.10
5	2.50	631.10	34.88
6	3.00	772.20	18.27
7	3.50	865.10	10.74
8	4.00	925.30	6.51
9	4.50	962.40	3.85
10	5.00	982.00	2.00
11	5.50	991.10	0.92
12	6.00	996.50	0.54
13	6.50	1000.00	0.35
14	7.00	1002.90	0.29
15	7.50	1005.30	0.24
16	8.00	1007.50	0.22
17	8.50	1009.30	0.18
18	9.00	1011.10	0.18
19	9.50	1012.50	0.14
20	10.00	1013.90	0.14
21	10.50	1015.30	0.14
22	11.00	1016.60	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(1016.6 - 7.149782)(1)/(1) = +1.0095E+03 g/L Carbon
(1016.6 - 7.149782)(1)/(1)(12) = +8.4121E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0949g

$\frac{1009.5}{.0949} = 1.0638^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000983 Date: 06/03/96 Time: 03:47:13

Sample Size = 1 uL .0949g
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	3.70	64.86
3	1.50	50.40	92.66
4	2.00	214.00	76.45
5	2.50	550.50	61.13
6	3.00	865.60	36.40
7	3.50	1030.40	15.99
8	4.00	1115.80	7.65
9	4.50	1165.50	4.26
10	5.00	1192.50	2.26
11	5.50	1206.40	1.15
12	6.00	1214.30	0.65
13	6.50	1219.80	0.45
14	7.00	1224.00	0.34
15	7.50	1227.10	0.25
16	8.00	1229.90	0.23
17	8.50	1232.20	0.19
18	9.00	1234.20	0.16
19	9.50	1235.80	0.13
20	10.00	1237.10	0.11
21	10.50	1238.20	0.09
22	11.00	1239.30	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(1239.3 - 23.20752)(1)/(1) = +1.2161E+03 g/L Carbon
(1239.3 - 23.20752)(1)/(1)(12) = +1.0134E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0949g

$\frac{1216.1}{.0949g} = 1.2814E4$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000983DUP Date: 06/03/96 Time: 03:59:24

Sample Size = 1 uL .0757g
Dil Factor = 1
Blank ID # =
Blank Value = .65 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	5.50	80.00
3	1.50	122.70	95.52
4	2.00	343.40	64.27
5	2.50	516.40	33.50
6	3.00	626.90	17.63
7	3.50	694.70	9.76
8	4.00	732.70	5.19
9	4.50	751.10	2.45
10	5.00	758.10	0.92
11	5.50	762.10	0.52
12	6.00	764.90	0.37
13	6.50	767.20	0.30
14	7.00	769.30	0.27
15	7.50	771.30	0.26
16	8.00	772.80	0.19
17	8.50	774.40	0.21
18	9.00	775.80	0.18
19	9.50	777.00	0.15
20	10.00	778.30	0.17
21	10.50	779.40	0.14
22	11.00	780.40	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(780.4 - 7.149791)(1)/(1) = +7.733E+02 g/L Carbon
(780.4 - 7.149791)(1)/(1)(12) = +6.444E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0757g

$\frac{773.3}{.0757g} = 1.0215^{E4}$

1388

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000983DUP Date: 06/03/96 Time: 04:11:36

Sample Size = 1 uL .0757g
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 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	11.20	90.18
3	1.51	111.40	89.95
4	2.01	368.40	69.76
5	2.51	644.00	42.80
6	3.01	777.60	17.18
7	3.51	848.90	8.40
8	4.01	891.70	4.80
9	4.51	914.60	2.50
10	5.01	925.10	1.14
11	5.51	930.90	0.62
12	6.01	934.30	0.36
13	6.51	937.20	0.31
14	7.00	939.20	0.21
15	7.50	940.60	0.15
16	8.00	942.00	0.15
17	8.50	943.00	0.11
18	9.00	943.90	0.10
19	9.50	944.60	0.07
20	10.00	945.30	0.07
21	10.50	945.80	0.05
22	11.00	946.40	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(946.4 - 23.21528)(1)/(1) = +9.232E+02 g/L Carbon
(946.4 - 23.21528)(1)/(1)(12) = +7.693E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

$\frac{923.2}{.0757g} = 1.219624$ .0757g

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000990 Date: 06/03/96 Time: 04:23:35

Sample Size = 1 uL .0695g
Dil Factor = 1
Blank ID # =
Blank Value = .65 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	3.80	78.95
3	1.50	70.00	94.57
4	2.00	220.80	68.30
5	2.50	356.70	38.10
6	3.00	445.90	20.00
7	3.50	503.20	11.39
8	4.00	535.60	6.05
9	4.50	550.30	2.67
10	5.00	555.80	0.99
11	5.50	559.10	0.59
12	6.00	561.60	0.45
13	6.50	563.60	0.35
14	7.00	565.60	0.35
15	7.50	567.10	0.26
16	8.00	568.40	0.23
17	8.50	569.90	0.26
18	9.00	570.90	0.18
19	9.50	572.00	0.19
20	10.00	573.10	0.19
21	10.50	574.10	0.17
22	11.00	575.00	0.16

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(575 - 7.14989)(1)/(1) = +5.679E+02 g/L Carbon
(575 - 7.14989)(1)/(1)(12) = +4.732E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0695g

$\frac{567.9}{.0695g} = 8.171^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000990 Date: 06/03/96 Time: 04:36:12

Sample Size = 1 uL .0695g
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 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	22.60	92.48
3	1.50	151.20	85.05
4	2.00	449.70	66.38
5	2.50	592.50	24.10
6	3.00	652.00	9.13
7	3.50	681.90	4.38
8	4.00	693.90	1.73
9	4.50	699.40	0.79
10	5.00	703.30	0.55
11	5.50	706.00	0.38
12	6.00	707.90	0.27
13	6.50	709.60	0.24
14	7.00	710.80	0.17
15	7.50	712.00	0.17
16	8.00	712.80	0.11
17	8.50	713.70	0.13
18	9.00	714.40	0.10
19	9.50	715.00	0.08
20	10.00	715.50	0.07
21	10.50	716.00	0.07
22	11.00	716.60	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(716.6 - 23.20755)(1)/(1) = +6.934E+02 g/L Carbon
(716.6 - 23.20755)(1)/(1)(12) = +5.778E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0695g

$\frac{693.4}{.0695g} = 9.977E3$

1391

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000990DUP Date: 06/03/96 Time: 04:48:23

Sample Size = 1 uL .0897g
Dil Factor = 1
Blank ID # =
Blank Value = .65 ug/minute C

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	4.20	88.10
3	1.51	88.00	95.23
4	2.01	280.40	68.62
5	2.51	450.70	37.79
6	3.00	559.60	19.46
7	3.50	630.30	11.22
8	4.00	674.20	6.51
9	4.50	698.10	3.42
10	5.00	708.00	1.40
11	5.50	712.80	0.67
12	6.00	716.00	0.45
13	6.50	718.80	0.39
14	7.00	721.00	0.31
15	7.50	723.10	0.29
16	8.00	724.90	0.25
17	8.50	726.50	0.22
18	9.00	728.00	0.21
19	9.50	729.30	0.18
20	10.00	730.60	0.18
21	10.50	731.90	0.18
22	11.00	733.00	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +6.5E-01 ug/min Carbon

SAMPLE RESULTS:
(733 - 7.150456)(1)/(1) = +7.258E+02 g/L Carbon
(733 - 7.150456)(1)/(1)(12) = +6.049E+01 Molar Carbon

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0897g

$\frac{725.8}{.0897g} = 8.091^{E3}$

1392

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T000990DUP Date: 06/03/96 Time: 05:00:53

Sample Size = 1 uL .0897g
Dil Factor = 1
Blank ID # =
Blank Value = 2.11 ug/minute C

Analyst : PJ MCCOWN
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.50	0.00
2	1.01	12.20	87.70
3	1.51	125.40	90.27
4	2.00	401.80	68.79
5	2.50	656.60	38.81
6	3.00	765.70	14.25
7	3.50	822.80	6.94
8	4.00	854.20	3.68
9	4.50	868.40	1.64
10	5.00	875.10	0.77
11	5.50	879.70	0.52
12	6.00	882.80	0.35
13	6.50	885.60	0.32
14	7.00	887.60	0.23
15	7.50	889.10	0.17
16	8.00	890.60	0.17
17	8.50	892.00	0.16
18	9.00	893.00	0.11
19	9.50	893.90	0.10
20	10.00	894.90	0.11
21	10.50	895.80	0.10
22	11.00	896.40	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 0 micrograms carbon
BLANK FACTOR = 0 / 0 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(896.4 - 23.20581)(1)/(1) = +8.732E+02 g/L Carbon
(896.4 - 23.20581)(1)/(1)(12) = +7.277E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: PJ McCown 6/3/96
PJ MCCOWN 00000

.0897g

$\frac{873.2}{.0897g} = 9.735^{23}$

1393

LABCORE Data Entry Template for Worklist# 6620

Analyst: JLS2 **Instrument:** CARB2 **Book #** 22N12B TIC 24N12A TOC

Method: LA-342-100 Rev/Mod D0

Worklist Comment: U-105 FOR TIC/TOC ACID PERSULFATE RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	6.2	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	8.8	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02^{E2}	5.75^{E2}	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00^{E3}	2.69^{E3}	N/A	ug/g
96000092	U-105 (R)	3	SAMPLE	S96T001004	0		@TICTOC1 TIC-02	SOLID	N/A	4.53^{E3}	5.00	ug/g
96000092	U-105 (R)	3	SAMPLE	S96T001004	0		@TICTOC1 TOC-02	SOLID	N/A	1.40^{E4}	40.0	ug/g
96000092	U-105 (R)	4	DUP	S96T001004	0		@TICTOC1 TIC-02	SOLID	4.53^{E3}	4.91^{E3}	N/A	ug/g
96000092	U-105 (R)	4	DUP	S96T001004	0		@TICTOC1 TOC-02	SOLID	1.40^{E4}	1.38^{E4}	N/A	ug/g
96000092	U-105 (R)	5	SPK	S96T001004	0		@TICTOC1 TIC-02	SOLID	100	78	N/A	ug/g
96000092	U-105 (R)	5	SPK	S96T001004	0		@TICTOC1 TOC-02	SOLID	100	102	N/A	ug/g
96000092	U-105 (R)	6	SAMPLE	S96T001011	0		@TICTOC1 TIC-02	SOLID	N/A	3.06^{E3}	5.00	ug/g
96000092	U-105 (R)	6	SAMPLE	S96T001011	0		@TICTOC1 TOC-02	SOLID	N/A	1.75^{E4}	40.0	ug/g
96000092	U-105 (R)	7	DUP	S96T001011	0		@TICTOC1 TIC-02	SOLID	3.06^{E3}	3.33^{E3}	N/A	ug/g
96000092	U-105 (R)	7	DUP	S96T001011	0		@TICTOC1 TOC-02	SOLID	1.75^{E4}	1.85^{E4}	N/A	ug/g

Final page for worklist # 6620

Jackie Steele 5/31/96
Analyst Signature **Date**

Linda Conlin 6-3-96
Analyst Signature **Date**

Approved RW Schroeder 6/3/96

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: 05/31/96 Time: 08:34:22

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	0.30	66.67
3	1.51	0.50	40.00
4	2.01	0.90	44.44
5	2.50	1.10	18.18
6	3.00	1.40	21.43
7	3.50	1.50	6.67
8	4.00	1.70	11.76
9	4.50	1.80	5.56
10	5.00	1.90	5.26
11	5.50	2.10	9.52
12	6.00	2.20	4.55
13	6.50	2.40	8.33
14	7.00	2.50	4.00
15	7.50	2.70	7.41
16	8.00	2.80	3.57
17	8.50	3.00	6.67
18	9.00	3.10	3.23
19	9.50	3.30	6.06
20	10.00	3.40	2.94
21	10.50	3.50	2.86
22	11.00	3.60	2.78

BLANK VALUE = 3.6 micrograms carbon
BLANK FACTOR = 3.6 / 10.99884 = +3.3E-01 ug/min Carbon

Sample Run By: Jacque Steele 5/31/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 05/31/96 Time: 08:50:31

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	2.60	96.15
3	1.50	5.80	55.17
4	2.00	10.30	43.69
5	2.50	13.50	23.70
6	3.01	15.20	11.18
7	3.51	16.10	5.59
8	4.00	16.60	3.01
9	4.50	17.00	2.35
10	5.00	17.30	1.73
11	5.50	17.60	1.70
12	6.00	17.90	1.68
13	6.50	18.10	1.10
14	7.00	18.40	1.63
15	7.50	18.60	1.08
16	8.00	18.80	1.06
17	8.50	18.90	0.53
18	9.00	19.10	1.05
19	9.50	19.30	1.04
20	10.00	19.60	1.53
21	10.50	19.70	0.51
22	11.00	19.90	1.01

BLANK VALUE = 19.9 micrograms carbon
BLANK FACTOR = 19.9 / 10.99976 = +1.81E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jeanie Steele 5/31/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12B Date: 05/31/96 Time: 15:59:04

Sample Size = 1 uL 1ml
Dil Factor = 1
Blank ID # =
Blank Value = .33 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	12.00	94.17
3	1.51	108.60	88.95
4	2.00	261.30	58.44
5	2.50	387.20	32.52
6	3.00	467.00	17.09
7	3.51	515.80	9.46
8	4.01	547.70	5.82
9	4.50	564.60	2.99
10	5.00	570.30	1.00
11	5.50	572.50	0.38
12	6.00	573.80	0.23
13	6.50	574.60	0.14
14	7.00	575.10	0.09
15	7.50	575.60	0.09
16	8.00	576.10	0.09
17	8.50	576.60	0.09
18	9.00	577.00	0.07
19	9.50	577.40	0.07
20	10.00	577.80	0.07
21	10.50	578.30	0.09
22	11.00	578.80	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(578.8 - 3.630222)(1)/(1) = +5.752E+02 g/L Carbon
(578.8 - 3.630222)(1)/(1)(12) = +4.793E+01 Molar Carbon

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$\frac{575.2}{602} = 95.55\%$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 24N12A Date: 05/31/96 Time: 16:11:08

Sample Size = 1 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 1.81 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	3.20	96.88
3	1.51	29.30	89.08
4	2.00	144.90	79.78
5	2.50	326.50	55.62
6	3.00	449.60	27.38
7	3.50	504.70	10.92
8	4.00	533.90	5.47
9	4.50	546.10	2.23
10	5.00	549.60	0.64
11	5.50	551.20	0.29
12	6.00	552.20	0.18
13	6.50	552.80	0.11
14	7.00	553.60	0.14
15	7.50	554.20	0.11
16	8.00	554.80	0.11
17	8.50	555.40	0.11
18	9.00	555.80	0.07
19	9.50	556.30	0.09
20	10.00	556.80	0.09
21	10.50	557.40	0.11
22	11.00	557.80	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(557.8 - 19.9079)(1)/(1) = +5.379E+02 g/L Carbon
(557.8 - 19.9079)(1)/(1)(12) = +4.482E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/31/96
JL STEELE 1398 00000

$$\frac{537.9}{.200ml} = \frac{2689.5}{3.00E3} = 89.652$$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK *Date: 05/31/96* *Time: 16:35:36*

Sample Size = 1 uL *Analyst : JL STEELE*
Dil Factor = 1 *Min Readings = 22*
Blank ID # = *Max Readings = 22*
Blank Value = .33 ug/minute C *% Difference = 10*

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	1.20	66.67
3	1.50	2.00	40.00
4	2.00	2.60	23.08
5	2.50	3.00	13.33
6	3.00	3.50	14.29
7	3.50	4.00	12.50
8	4.00	4.40	9.09
9	4.50	4.80	8.33
10	5.00	5.20	7.69
11	5.50	5.60	7.14
12	6.00	6.00	6.67
13	6.50	6.40	6.25
14	7.00	6.70	4.48
15	7.50	7.10	5.63
16	8.00	7.60	6.58
17	8.50	7.90	3.80
18	9.00	8.20	3.66
19	9.50	8.60	4.65
20	10.00	8.90	3.37
21	10.50	9.40	5.32
22	11.00	9.80	4.08

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(9.8 - 3.629617)(1)/(1) = +6.2E+00 g/L Carbon
(9.8 - 3.629617)(1)/(1)(12) = +5.1E-01 Molar Carbon

Sample Run By: Jackie Steele 5/31/96
JL STEELE *00000*

|9.80 - 3.60| = 6.2

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 05/31/96 Time: 16:47:46

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 1.81 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	0.20	100.00
3	1.51	0.50	60.00
4	2.01	0.90	44.44
5	2.51	1.90	52.63
6	3.01	3.40	44.12
7	3.50	5.00	32.00
8	4.01	6.20	19.35
9	4.50	7.00	11.43
10	5.00	7.70	9.09
11	5.50	8.20	6.10
12	6.00	8.60	4.65
13	6.50	9.00	4.44
14	7.00	9.20	2.17
15	7.50	9.50	3.16
16	8.00	9.70	2.06
17	8.50	10.00	3.00
18	9.00	10.30	2.91
19	9.50	10.50	1.90
20	10.00	10.70	1.87
21	10.50	10.90	1.83
22	11.00	11.10	1.80

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(11.1 - 19.91121)(1)/(1) = < 5.00 E-3 g/L Carbon
(11.1 - 19.91121)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

(11.10 - 19.90 / = 8.8 **1400**

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001004 Date: 05/31/96 Time: 18:30:06

Sample Size = 1 uL , .1098g
Dil Factor = 1
Blank ID # =
Blank Value = .33 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	9.80	95.92
3	1.51	78.60	87.53
4	2.01	198.60	60.42
5	2.51	300.30	33.87
6	3.01	367.10	18.20
7	3.51	413.00	11.11
8	4.00	443.40	6.86
9	4.50	463.30	4.30
10	5.00	473.40	2.13
11	5.50	478.50	1.07
12	6.00	482.50	0.83
13	6.50	485.80	0.68
14	7.00	488.20	0.49
15	7.50	490.50	0.47
16	8.00	492.60	0.43
17	8.50	494.40	0.36
18	9.00	496.20	0.36
19	9.50	497.60	0.28
20	10.00	498.90	0.26
21	10.50	500.30	0.28
22	11.00	501.40	0.22

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(501.4 - 3.630564)(1)/(1) = +4.978E+02 g/L Carbon
(501.4 - 3.630564)(1)/(1)(12) = +4.148E+01 Molar Carbon

Sample Run By: Jacque Steele 5/31/96
JL STEELE 00000

$\frac{497.8}{.1098g} = 4.534^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001004 Date: 05/31/96 Time: 18:42:18

Sample Size = 1 uL .1098g
Dil Factor = 1
Blank ID # =
Blank Value = 1.81 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	21.80	94.50
3	1.51	239.50	90.90
4	2.00	580.50	58.74
5	2.50	965.70	39.89
6	3.00	1231.10	21.56
7	3.50	1356.30	9.23
8	4.00	1418.90	4.41
9	4.50	1461.40	2.91
10	5.00	1490.00	1.92
11	5.50	1508.70	1.24
12	6.00	1519.20	0.69
13	6.50	1526.00	0.45
14	7.00	1532.50	0.42
15	7.50	1538.40	0.38
16	8.00	1542.80	0.29
17	8.50	1546.50	0.24
18	9.00	1549.10	0.17
19	9.50	1551.40	0.15
20	10.00	1553.40	0.13
21	10.50	1554.90	0.10
22	11.00	1556.30	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1556.3 - 19.90801)(1)/(1) = +1.5364E+03 g/L Carbon
(1556.3 - 19.90801)(1)/(1)(12) = +1.2803E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$\frac{1536.4}{.1098g} = 1.3993^{E4}$ 1402

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1004 DUP Date: 05/31/96 Time: 18:54:14

Sample Size = 1 uL .1459g
Dil Factor = 1
Blank ID # =
Blank Value = .33 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	10.40	88.46
3	1.51	83.80	87.59
4	2.00	250.50	66.55
5	2.50	409.90	38.89
6	3.00	512.20	19.97
7	3.50	579.20	11.57
8	4.00	624.20	7.21
9	4.50	654.60	4.64
10	5.00	674.90	3.01
11	5.50	685.80	1.59
12	6.00	692.10	0.91
13	6.50	696.70	0.66
14	7.00	700.60	0.56
15	7.50	704.00	0.48
16	8.00	707.20	0.45
17	8.50	709.70	0.35
18	9.00	712.10	0.34
19	9.50	714.30	0.31
20	10.00	716.30	0.28
21	10.50	718.30	0.28
22	11.00	719.90	0.22

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(719.9 - 3.629637)(1)/(1) = +7.163E+02 g/L Carbon
(719.9 - 3.629637)(1)/(1)(12) = +5.969E+01 Molar Carbon

Sample Run By: Jacque Steele 5/31/96
JL STEELE 00000

$\frac{716.3}{.1459g} = 4.910^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1004 DUP *Date: 05/31/96* *Time: 19:06:53*

Sample Size = 1 uL , 1459g *Analyst : JL STEELE*
Dil Factor = 1 *Min Readings = 22*
Blank ID # = *Max Readings = 22*
Blank Value = 1.81 ug/minute C *% Difference = 10*

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.00	0.00
2	1.01	23.30	91.42
3	1.50	201.70	88.45
4	2.00	571.30	64.69
5	2.50	1007.90	43.32
6	3.00	1438.50	29.93
7	3.50	1690.70	14.92
8	4.00	1806.80	6.43
9	4.50	1874.10	3.59
10	5.00	1918.70	2.32
11	5.50	1951.50	1.68
12	6.00	1973.90	1.13
13	6.50	1988.00	0.71
14	7.00	1997.20	0.46
15	7.50	2004.30	0.35
16	8.00	2009.90	0.28
17	8.50	2014.40	0.22
18	9.00	2018.30	0.19
19	9.50	2021.20	0.14
20	10.00	2024.10	0.14
21	10.50	2026.40	0.11
22	11.00	2028.80	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(2028.8 - 19.90956)(1)/(1) = +2.0089E+03 g/L Carbon
(2028.8 - 19.90956)(1)/(1)(12) = +1.6741E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 5/31/96
JL STEELE *00000*

$\frac{2008.9}{.1459g} = 1.3769E4$

1404

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1004 SPIKE Date: 05/31/96 Time: 19:19:17

Sample Size = 1 uL , 0834 +
Dil Factor = 1
Blank ID # = , 500ml 22N12B
Blank Value = .33 ug/minute C

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	4.00	65.00
3	1.51	44.90	91.09
4	2.00	150.20	70.11
5	2.50	269.70	44.31
6	3.00	357.50	24.56
7	3.50	416.50	14.17
8	4.00	459.20	9.30
9	4.50	486.50	5.61
10	5.00	502.70	3.22
11	5.50	509.50	1.33
12	6.00	513.50	0.78
13	6.50	516.40	0.56
14	7.00	518.60	0.42
15	7.50	520.60	0.38
16	8.00	522.50	0.36
17	8.50	524.20	0.32
18	9.00	525.70	0.29
19	9.50	527.20	0.28
20	10.00	528.30	0.21
21	10.50	529.60	0.25
22	11.00	530.70	0.21

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(530.7 - 3.629637)(1)/(1) = +5.271E+02 g/L Carbon
(530.7 - 3.629637)(1)/(1)(12) = +4.392E+01 Molar Carbon

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$$\frac{530.70}{\frac{501.40}{.1098} \times .0834 + 300} = \frac{530.70}{680.84} = 77.95\%$$

1405

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1004 SPIKE Date: 05/31/96 Time: 19:31:22

Sample Size = 1 uL .0834g + .180ml 24N12A
Dil Factor = 1
Blank ID # =
Blank Value = 1.81 ug/minute C

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	22.20	93.69
3	1.50	204.70	89.15
4	2.00	528.50	61.27
5	2.50	942.70	43.94
6	3.00	1220.70	22.77
7	3.50	1341.10	8.98
8	4.00	1398.00	4.07
9	4.50	1435.30	2.60
10	5.00	1459.40	1.65
11	5.50	1472.60	0.90
12	6.00	1479.70	0.48
13	6.50	1484.50	0.32
14	7.00	1488.40	0.26
15	7.50	1491.90	0.23
16	8.00	1494.60	0.18
17	8.50	1497.20	0.17
18	9.00	1499.00	0.12
19	9.50	1500.60	0.11
20	10.00	1502.00	0.09
21	10.50	1503.30	0.09
22	11.00	1504.50	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1504.5 - 19.91309)(1)/(1) = +1.4846E+03 g/L Carbon
(1504.5 - 19.91309)(1)/(1)(12) = +1.2372E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$$\frac{1504.50}{\frac{155630}{.1098} \times .0834 + 300} = \frac{1504.50}{1482.11} = 101.51\%$$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001011 Date: 05/31/96 Time: 19:43:27

Sample Size = 1 uL .176deg
Dil Factor = 1
Blank ID # =
Blank Value = .33 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	28.00	95.71
3	1.51	95.30	70.62
4	2.01	182.70	47.84
5	2.50	272.70	33.00
6	3.00	343.20	20.54
7	3.50	396.50	13.44
8	4.00	435.60	8.98
9	4.50	463.40	6.00
10	5.00	482.40	3.94
11	5.50	493.70	2.29
12	6.00	501.00	1.46
13	6.50	507.40	1.26
14	7.00	513.50	1.19
15	7.50	518.50	0.96
16	8.00	523.00	0.86
17	8.50	527.50	0.85
18	9.00	531.10	0.68
19	9.50	534.80	0.69
20	10.00	537.90	0.58
21	10.50	541.10	0.59
22	11.00	543.90	0.51

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(543.9 - 3.630282)(1)/(1) = +5.403E+02 g/L Carbon
(543.9 - 3.630282)(1)/(1)(12) = +4.502E+01 Molar Carbon

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$\frac{540.3}{.176deg} = 3.059E3$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001011 Date: 05/31/96 Time: 19:55:24

Sample Size = 1 uL , 1766g
Dil Factor = 1
Blank ID # =
Blank Value = 1.81 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.50	0.00
2	1.01	38.60	90.93
3	1.51	483.40	92.01
4	2.01	1100.60	56.08
5	2.51	1696.10	35.11
6	3.01	2311.10	26.61
7	3.51	2696.10	14.28
8	4.00	2843.70	5.19
9	4.50	2924.00	2.75
10	5.00	2978.80	1.84
11	5.50	3018.40	1.31
12	6.00	3046.20	0.91
13	6.50	3065.30	0.62
14	7.00	3077.20	0.39
15	7.50	3085.60	0.27
16	8.00	3092.10	0.21
17	8.50	3097.40	0.17
18	9.00	3101.50	0.13
19	9.50	3105.50	0.13
20	10.00	3108.70	0.10
21	10.50	3111.30	0.08
22	11.00	3113.60	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(3113.6 - 19.91133)(1)/(1) = +3.0937E+03 g/L Carbon
(3113.6 - 19.91133)(1)/(1)(12) = +2.5781E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$\frac{3093.7}{.1766g} = 1.7518^{E4}$ 1408

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1011 DUP Date: 05/31/96 Time: 20:07:24

Sample Size = 1 uL , 0759
Dil Factor = 1
Blank ID # =
Blank Value = .33 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.90	0.00
2	1.01	7.10	73.24
3	1.51	31.90	77.74
4	2.00	70.30	54.62
5	2.50	112.20	37.34
6	3.00	149.80	25.10
7	3.51	180.20	16.87
8	4.01	200.90	10.30
9	4.50	214.40	6.30
10	5.00	223.10	3.90
11	5.50	229.40	2.75
12	6.00	234.50	2.17
13	6.50	238.50	1.68
14	7.00	241.30	1.16
15	7.50	244.10	1.15
16	8.00	246.10	0.81
17	8.50	248.10	0.81
18	9.00	250.20	0.84
19	9.50	251.80	0.64
20	10.00	253.40	0.63
21	10.50	255.00	0.63
22	11.00	256.20	0.47

USER INPUT BLANK VALUE
BLANK VALUE = 3.62992 micrograms carbon
BLANK FACTOR = 3.62992 / 10.99976 = +3.3E-01 ug/min Carbon

SAMPLE RESULTS:
(256.2 - 3.629597)(1)/(1) = +2.526E+02 g/L Carbon
(256.2 - 3.629597)(1)/(1)(12) = +2.105E+01 Molar Carbon

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$\frac{252.6}{.0759g} = 3.328^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1011 DUP Date: 05/31/96 Time: 20:26:36

Sample Size = 1 uL .07598
Dil Factor = 1
Blank ID # =
Blank Value = 1.81 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	26.10	94.25
3	1.50	233.00	88.80
4	2.00	536.10	56.54
5	2.50	861.70	37.79
6	3.00	1108.40	22.26
7	3.50	1232.00	10.03
8	4.00	1294.30	4.81
9	4.50	1336.60	3.16
10	5.00	1365.70	2.13
11	5.50	1384.50	1.36
12	6.00	1394.40	0.71
13	6.50	1400.20	0.41
14	7.00	1405.40	0.37
15	7.50	1409.70	0.31
16	8.00	1413.50	0.27
17	8.50	1416.40	0.20
18	9.00	1418.90	0.18
19	9.50	1420.80	0.13
20	10.00	1422.70	0.13
21	10.50	1423.90	0.08
22	11.00	1425.20	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 19.90956 micrograms carbon
BLANK FACTOR = 19.90956 / 10.99976 = +1.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1425.2 - 19.90956)(1)/(1) = +1.4053E+03 g/L Carbon
(1425.2 - 19.90956)(1)/(1)(12) = +1.1711E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/31/96
JL STEELE 00000

$\frac{1405.3}{.0759g} = 1.8515^{E4}$ 1410

LABCORE Data Entry Template for Worklist# 7229

Analyst: JLS2 **Instrument:** CARB2 **Book#** 22N12B TIC 24N12A TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: U-105 TICTOC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	LIQUID		
2	STD				@TICTOC1	LIQUID		
3	SAMPLE	S96T001234	0		@TICTOC1	LIQUID	96000143	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
4	DUP	S96T001234	0		@TICTOC1	LIQUID		
5	TRIPL	S96T001234	0		@TICTOC1	LIQUID		
6	SAMPLE	S96T001232	0		@TICTOC1	LIQUID	96000143	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
7	DUP	S96T001232	0		@TICTOC1	LIQUID		
8	TRIPL	S96T001232	0		@TICTOC1	LIQUID		
9	SAMPLE	S96T001631	0		@TICTOC1	SOLID	96000323	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
10	DUP	S96T001631	0		@TICTOC1	SOLID		
11	SPK	S96T001631	0		@TICTOC1	SOLID		
12	SAMPLE	S96T001632	0		@TICTOC1	SOLID	96000323	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
13	DUP	S96T001632	0		@TICTOC1	SOLID		

Final page for worklist # 7229

Irene Steele 6/11/96
Analyst Signature **Date**

Analyst Signature **Date**

TI 7229

Data Entry Comments:

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

LABCORE Completed Worklist Report for Worklist# 7229

Analyst: jls2 **Instrument:** CARB2 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: U-105 TICTOC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK			0	@TICTOC1 TIC-02	LIQUID	1	2.30E+0	2.300	ug/mL
1	BLNK			0	@TICTOC1 TOC-02	LIQUID	1	3.10E+0	3.100	ug/mL
2	STD			0	@TICTOC1 TIC-02	LIQUID	6.02E+02	5.88E+2	97.674	% Recovery
2	STD			0	@TICTOC1 TOC-02	LIQUID	3.00E+03	2.79E+3	93.000	% Recovery
3	SAMPLE	S96T001234		0	@TICTOC1 TIC-02	LIQUID	N/A	7.60E+01	5.000	ug/mL
3	SAMPLE	S96T001234		0	@TICTOC1 TOC-02	LIQUID	N/A	1.06E+03	40.000	ug/mL
4	DUP	S96T001234		0	@TICTOC1 TIC-02	LIQUID	7.60E+1	1.10E+2	36.559	RPD
4	DUP	S96T001234		0	@TICTOC1 TOC-02	LIQUID	1.06E+3	1.44E+3	30.400	RPD
5	TRIPL	S96T001234		0	@TICTOC1 TIC-02	LIQUID	7.60E+1	1.22E+2	46.465	RPD
5	TRIPL	S96T001234		0	@TICTOC1 TOC-02	LIQUID	1.06E+3	1.31E+3	21.097	RPD
6	SAMPLE	S96T001232		0	@TICTOC1 TIC-02	LIQUID	N/A	5.28E+02	5.000	ug/mL
6	SAMPLE	S96T001232		0	@TICTOC1 TOC-02	LIQUID	N/A	4.62E+02	40.000	ug/mL
7	DUP	S96T001232		0	@TICTOC1 TIC-02	LIQUID	5.28E+2	5.32E+2	0.755	RPD
7	DUP	S96T001232		0	@TICTOC1 TOC-02	LIQUID	4.62E+2	2.24E+3	131.606	RPD
8	TRIPL	S96T001232		0	@TICTOC1 TIC-02	LIQUID	5.28E+2	5.61E+2	6.061	RPD
8	TRIPL	S96T001232		0	@TICTOC1 TOC-02	LIQUID	4.62E+2	1.87E+3	120.755	RPD
9	SAMPLE	S96T001631		0	@TICTOC1 TIC-02	SOLID	N/A	1.26E+04	5.000	ug/g
9	SAMPLE	S96T001631		0	@TICTOC1 TOC-02	SOLID	N/A	1.11E+04	40.000	ug/g
10	DUP	S96T001631		0	@TICTOC1 TIC-02	SOLID	1.26E+4	8.58E+3	37.960	RPD
10	DUP	S96T001631		0	@TICTOC1 TOC-02	SOLID	1.11E+4	7.84E+3	34.424	RPD
11	SPK	S96T001631		0	@TICTOC1 TIC-02	SOLID	1.00E+02	1.07E+02	107.000	% Recovery
11	SPK	S96T001631		0	@TICTOC1 TOC-02	SOLID	1.00E+02	7.64E+01	76.400	% Recovery
12	SAMPLE	S96T001632		0	@TICTOC1 TIC-02	SOLID	N/A	6.83E+03	5.000	ug/g
12	SAMPLE	S96T001632		0	@TICTOC1 TOC-02	SOLID	N/A	1.05E+04	40.000	ug/g
13	DUP	S96T001632		0	@TICTOC1 TIC-02	SOLID	6.83E+3	7.98E+3	15.530	RPD
13	DUP	S96T001632		0	@TICTOC1 TOC-02	SOLID	1.05E+4	9.64E+3	8.540	RPD

Final page for worklist# 7229

6-12-96

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

6/11/96

Reviewer Signature **Date**

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

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Sample Type	Sample Size in mL	(SS)	0.0000	0.0000
BLNK	Dilution Factor	(DF)	1	1
Work Unit	µg of Carbon in Sample	(C1)	6.1	21.7
7229	µg of Carbon from Baseline	(C2)	3.8	24.8

Test Code
@TICTOC1

Sample Matrix
LIQUID

Batch Number
96002897

Rerun
0

µg of Carbon = |C1-C2|

Sample Prep
N/A

Sample
BLNK

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
JLS2

Date Completed
06/11/96

Analysis Date
06/11/96

		TIC	TOC
Analysis Time	Method Detection Limit in µg/mL	5	40
Sample Point	µg of Carbon	2.30E+00	3.10E+00
U-105			

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

BLANK.WB1 REV 1.0 342100ML

WORKBOOK PAGE: STD2

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	1.0000	0.2000
STD	Dilution Factor	(DF)	1	1
Work List	Final Coulometer Reading in µg	(C1)	591.5	582.2
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Standard Book Number		22N12B	24N12A
@TICTOC1	Standard Value (µg/ml)		602	3000

Matrix: LIQUID

Batch Number: 96002897

Rerun: 0

Sample Prep: N/A

Sample: STD

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Completed: 06/11/96

Analysis Date: 06/11/96

Analysis Time:

Sample Point: U-105

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	3.00E+03
QC Found in µg/mL	5.88E+02	2.79E+03
Percent Standard Recovery	~~97.6~~ 97.7 RWS 6/11/96	92.9

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	0.2500	0.2500
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	22.8	290.5
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code				
@TICTOC1				

Matrix
LIQUID

Batch Number
96002897

Rerun
0

Sample Prep
N/A

Sample #
S96T001234

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
JLS2

Date Complete
06/11/96

Analysis Date
06/11/96

Analysis Time

Sample Point
U-105

µg of Carbon/mL = (C1-C2) * DF / SS
µg of Carbon/mL for TIC = 5 if C1 < C2
µg of Carbon/mL for TOC = 40 if C1 < C2

	TIC	TOC
Method Detection Limit in µg/mL	5	40
µg of Carbon/mL	7.60E+01	1.06E+03

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	0.2500	0.2500
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	31.4	385.4
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Known µg of C from Original Sample		7.60E+1	1.06E+3
@TICTOC1				

Matrix: LIQUID

Batch Number: 96002897

Remarks: 0

Sample Prep: N/A

Sample #: S96T001234

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/11/96

Analysis Date: 06/11/96

µg of Carbon/mL = (C1-C2) * DF / SS
µg of Carbon/mL for TIC = 5 if C1 < C2
µg of Carbon/mL for TOC = 40 if C1 < C2

RPD (of Sample and Dup Results) = | Difference | / Average

		TIC	TOC
Analysis Time	Method Detection Limit in µg/mL	5	40
Sample Point	µg of Carbon/mL	1.10E+02	1.44E+03
U-105	RPD (of Sam and Dup Results)	~~36.9%~~ 36.6 RWS 6/11/96	30.6% 30.4 RWS 6/11/96

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: TRIPL5

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	0.2500	0.2500
TRIPL	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	34.4	352.9
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Known µg of C from Original Sample		7.60E+1	1.06E+3
@TICTOC1	Duplicate Result		1.10E+2	1.44E+3

Matrix: LIQUID

Batch Number: 96002897

Rerun: 0

Sample Prep: N/A

Sample #: S96T001234

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/11/96

Analysis Date: 06/11/96

Analysis Time:

Sample Point: U-105

µg of Carbon/mL = (C1-C2) * DF / SS
µg of Carbon/mL for TIC = 5 if C1 < C2
µg of Carbon/mL for TOC = 40 if C1 < C2

RSD (of Sam, Dup, and Tripl Results) = Standard Deviation / Average

	TIC	TOC
Method Detection Limit in µg/mL	5	40
µg of Carbon/mL	1.22E+02	1.31E+03
RSD (of Sam, Dup, and Tripl Results)	0.2337	0.1522

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM6

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	0.2500	0.2500
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	135.7	140.3
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code				
@TICTOC1				

Matrix
LIQUID

Batch Number
96002897

Rerun #
0

Sample Prep
N/A

Sample No.
S96T001232

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
JLS2

Date Complete
06/11/96

Analysis Date
06/11/96

Analysis Time

Sample Point
U-105

µg of Carbon/mL = (C1-C2) * DF / SS
µg of Carbon/mL for TIC = 5 if C1 < C2
µg of Carbon/mL for TOC = 40 if C1 < C2

	TIC	TOC
Method Detection Limit in µg/mL	5	40
µg of Carbon/mL	5.28E+02	4.62E+02

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	Ric Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP7

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	0.2500	0.2500
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	136.9	585.9
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Known µg of C from Original Sample		5.28E+2	4.62E+2
@TICTOC1				

Matrix: LIQUID

Batch Number: 96002897

Rerun: 0

Sample Prep: N/A

Sample: S96T001232

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/11/96

Analysis Date: 06/11/96

Analysis Time:

Sample Point: U-105

µg of Carbon/mL = (C1-C2) * DF / SS
µg of Carbon/mL for TIC = 5 if C1 < C2
µg of Carbon/mL for TOC = 40 if C1 < C2

RPD (of Sample and Dup Results) = | Difference | / Average

	TIC	TOC
Method Detection Limit in µg/mL	5	40
µg of Carbon/mL	5.32E+02	2.24E+03
RPD (of Sam and Dup Results)	0.8%	131.7%

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: TRIPL8

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	0.2500	0.2500
TRIPL	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	144	493.2
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Known µg of C from Original Sample		5.28E+2	4.62E+2
@TICTOC1	Duplicate Result		5.32E+2	2.24E+3

Matrix: LIQUID

Batch Number: 96002897

Rerun #: 0

Sample Prep: N/A

Sample #: S96T001232

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/11/96

Analysis Date: 06/11/96

Analysis Time:

Sample Point: U-105

µg of Carbon/mL = (C1-C2) * DF / SS
µg of Carbon/mL for TIC = 5 if C1 < C2
µg of Carbon/mL for TOC = 40 if C1 < C2

RSD (of Sam, Dup, and Tripl Results) = Standard Deviation / Average

	TIC	TOC
Method Detection Limit in µg/mL	5	40
µg of Carbon/mL	5.61E+02	1.87E+03
RSD (of Sam, Dup, and Tripl Results)	0.0331	0.6155

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	Ray Schwaeche	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM9

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1519	0.1519
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1924	1712.9
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96003734
Rerun	0
Sample Prep	N/A
Sample Number	S96T001631
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/11/96
Analysis Date	06/11/96
Analysis Time	
Sample Point	U-105

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	1.26E+04	1.11E+04

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Edwards	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP10

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1631	0.1631
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1402.7	1303
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Known µg of C from Original Sample		1.26E+4	1.11E+4
@TICTOC1				

Matrix	SOLID
Batch Number	96003734
Rerun	0
Sample Prep	N/A
Sample	S96T001631
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/11/96
Analysis Date	06/11/96
Analysis Time	
Sample Point	U-105

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	8.58E+03	7.84E+03
RPD (of Sam and Dup Results)	38.0%	~~34.5%~~ 34.4

RWS 6/11/96

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schwerdtfeger	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SPIKE11

TIC/TOC : LA-342-100 (C-0) SOLIDS

	Sample Vial Data		TIC	TOC
Type: SPK	Sample Size in g	(SS)	0.1519	0.1519
Work List: 7229	Final Coulometer Reading in µg	(C1)	1924	1712.9
Test Code: @TICTOC1	**Spiked Vial Data**			
	Sample Size in g	(SPK SS)	0.0781	0.0781
	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
Matrix: SOLID	Final Coulometer Reading in µg	(C3)	1385.3	901.7
	Spike Book Number		22N12B	24N12A
Batch Number: 96003734	Spike Standard Value in µg/ml		602	3000
	Spike Concentration in µg	(SPK CONC)	301	300

Rerun: 0

Sample Prep: N/A

Sample #: S96T001631

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/11/96

Analysis Date: 06/11/96

Analysis Time:

Sample Point: U-105

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	3.00E+03
QC Found in µg/mL	6.46E+02	2.29E+03
Percent Spike Recovery	~~107.4~~ 107	76.4

RW Schroeder 6/11/96 RWS 6/11/96

WORKBOOK PAGE: SAM12

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.2416	0.2416
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1655	2569
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96003734
Rerun	0
Sample Prep	N/A
Sample #	S96T001632
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/11/96
Analysis Date	06/11/96
Analysis Time	
Sample Point	U-105

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	6.83E+03	1.05E+04

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP13

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1865	0.1865
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1492.3	1822.7
7229	µg of Carbon from Baseline	(C2)	3.8	24.8
Test Code	Known µg of C from Original Sample		6.83E+3	1.05E+4
@TICTOC1				

Matrix	SOLID
Batch Number	96003734
Rerun	0
Sample Prep	N/A
Sample	S96T001632
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/11/96
Analysis Date	06/11/96
Analysis Time	
Sample Point	U-105

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	7.98E+03	9.64E+03
RPD (of Sam and Dup Results)	15.5%	8.5%

Data Entered By:	RTS	Date:	06/11/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 06/11/96 Time: 08:53:27

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	1.00	0.00
2	1.01	1.30	23.08
3	1.51	1.60	18.75
4	2.00	1.90	15.79
5	2.50	1.90	0.00
6	3.00	2.10	9.52
7	3.50	2.20	4.55
8	4.00	2.30	4.35
9	4.50	2.40	4.17
10	5.00	2.50	4.00
11	5.50	2.60	3.85
12	6.00	2.70	3.70
13	6.50	2.90	6.90
14	7.00	3.00	3.33
15	7.50	3.10	3.23
16	8.00	3.20	3.13
17	8.50	3.30	3.03
18	9.00	3.40	2.94
19	9.50	3.50	2.86
20	10.00	3.70	5.41
21	10.50	3.70	0.00
22	11.00	3.80	2.63

BLANK VALUE = 3.8 micrograms carbon
BLANK FACTOR = 3.8 / 11.00153 = +3.5E-01 ug/min Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 06/11/96 Time: 09:05:45

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	0.50	100.00
3	1.51	2.70	81.48
4	2.00	10.40	74.04
5	2.50	16.30	36.20
6	3.00	18.90	13.76
7	3.50	20.10	5.97
8	4.00	20.70	2.90
9	4.50	21.20	2.36
10	5.00	21.70	2.30
11	5.50	22.20	2.25
12	6.00	22.60	1.77
13	6.50	22.90	1.31
14	7.00	23.20	1.29
15	7.50	23.40	0.85
16	8.00	23.60	0.85
17	8.50	23.90	1.26
18	9.00	24.00	0.42
19	9.50	24.20	0.83
20	10.00	24.40	0.82
21	10.50	24.50	0.41
22	11.00	24.80	1.21

BLANK VALUE = 24.8 micrograms carbon
BLANK FACTOR = 24.8 / 10.99982 = +2.25E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12B Date: 06/11/96 Time: 09:18:06

Sample Size = 1 uL 1ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	16.70	100.00
3	1.51	145.90	88.55
4	2.00	309.40	52.84
5	2.50	435.00	28.87
6	3.00	514.60	15.47
7	3.50	559.00	7.94
8	4.00	577.70	3.24
9	4.50	584.90	1.23
10	5.00	587.60	0.46
11	5.50	588.80	0.20
12	6.00	589.30	0.08
13	6.50	589.80	0.08
14	7.00	590.00	0.03
15	7.50	590.20	0.03
16	8.00	590.40	0.03
17	8.50	590.70	0.05
18	9.00	590.80	0.02
19	9.50	590.90	0.02
20	10.00	591.10	0.03
21	10.50	591.30	0.03
22	11.00	591.50	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(591.5 - 3.850256)(1)/(1) = +5.876E+02 g/L Carbon
(591.5 - 3.850256)(1)/(1)(12) = +4.897E+01 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

$\frac{587.6}{602} = 97.6\%$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 24N12A Date: 06/11/96 Time: 09:30:11

Sample Size = 1 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	9.60	100.00
3	1.51	84.40	88.63
4	2.00	286.40	70.53
5	2.50	457.80	37.44
6	3.00	531.00	13.79
7	3.50	557.80	4.80
8	4.00	565.10	1.29
9	4.50	567.10	0.35
10	5.00	568.20	0.19
11	5.50	568.90	0.12
12	6.00	569.50	0.11
13	6.50	570.10	0.11
14	7.00	571.90	0.31
15	7.50	576.10	0.73
16	8.00	578.70	0.45
17	8.50	579.90	0.21
18	9.00	580.70	0.14
19	9.50	581.30	0.10
20	10.00	581.60	0.05
21	10.50	581.90	0.05
22	11.00	582.20	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(582.2 - 24.74931)(1)/(1) = +5.575E+02 g/L Carbon
(582.2 - 24.74931)(1)/(1)(12) = +4.645E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jerre Steele 6/11/96
JL STEELE 00000

$\frac{557.5}{.200ml} = \frac{2787.5}{3.00E3} = 92.92$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 06/11/96 Time: 09:42:06

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	1.51	2.50	36.00
4	2.01	3.00	16.67
5	2.50	3.30	9.09
6	3.01	3.50	5.71
7	3.50	3.70	5.41
8	4.00	3.90	5.13
9	4.50	4.00	2.50
10	5.00	4.20	4.76
11	5.50	4.40	4.55
12	6.00	4.50	2.22
13	6.50	4.60	2.17
14	7.00	4.80	4.17
15	7.50	5.00	4.00
16	8.00	5.20	3.85
17	8.50	5.30	1.89
18	9.00	5.40	1.85
19	9.50	5.60	3.57
20	10.00	5.80	3.45
21	10.50	5.90	1.69
22	11.00	6.10	3.28

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(6.1 - 3.849915)(1)/(1) = +2.3E+00 g/L Carbon
(6.1 - 3.849915)(1)/(1)(12) = +1.9E-01 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

| 6.10 - 3.80 | = 2.3

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 06/11/96 Time: 09:54:48

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	1.10	100.00
3	1.51	5.50	80.00
4	2.00	12.10	54.55
5	2.50	16.10	24.84
6	3.00	17.80	9.55
7	3.50	18.40	3.26
8	4.01	18.90	2.65
9	4.50	19.20	1.56
10	5.00	19.40	1.03
11	5.50	19.70	1.52
12	6.00	19.90	1.01
13	6.50	20.10	1.00
14	7.00	20.30	0.99
15	7.50	20.50	0.98
16	8.00	20.70	0.97
17	8.50	20.80	0.48
18	9.00	21.10	1.42
19	9.50	21.20	0.47
20	10.00	21.30	0.47
21	10.50	21.50	0.93
22	11.00	21.70	0.92

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(21.7 - 24.74739)(1)/(1) = < 5.00 E-3 g/L Carbon
(21.7 - 24.74739)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

|21.70 - 24.8| = 3.1

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001234 Date: 06/11/96 Time: 10:10:05

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	2.00	100.00
3	1.50	6.70	70.15
4	2.00	11.50	41.74
5	2.50	15.20	24.34
6	3.00	17.40	12.64
7	3.50	18.60	6.45
8	4.00	19.10	2.62
9	4.50	19.50	2.05
10	5.00	19.70	1.02
11	5.50	19.90	1.01
12	6.00	20.00	0.50
13	6.50	20.20	0.99
14	7.00	20.40	0.98
15	7.50	20.50	0.49
16	8.00	20.80	1.44
17	8.50	20.90	0.48
18	9.00	21.20	1.42
19	9.50	21.50	1.40
20	10.00	21.90	1.83
21	10.50	22.30	1.79
22	11.00	22.80	2.19

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(22.8 - 3.849893)(1)/(1) = +1.90E+01 g/L Carbon
(22.8 - 3.849893)(1)/(1)(12) = +1.58E+00 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001234 Date: 06/11/96 Time: 10:23:37

Sample Size = 1 uL ,250ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	1.30	84.62
3	1.51	5.00	74.00
4	2.00	26.20	80.92
5	2.50	78.10	66.45
6	3.00	125.40	37.72
7	3.50	159.90	21.58
8	4.00	178.80	10.57
9	4.50	201.70	11.35
10	5.00	219.30	8.03
11	5.50	235.40	6.84
12	6.00	243.40	3.29
13	6.50	255.50	4.74
14	7.00	262.90	2.81
15	7.50	269.30	2.38
16	8.00	274.60	1.93
17	8.50	278.40	1.36
18	9.00	281.40	1.07
19	9.50	284.20	0.99
20	10.00	286.60	0.84
21	10.50	288.90	0.80
22	11.00	290.50	0.55

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(290.5 - 24.75165)(1)/(1) = +2.657E+02 g/L Carbon
(290.5 - 24.75165)(1)/(1)(12) = +2.215E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1234 DUP Date: 06/11/96 Time: 10:35:24

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	3.60	72.22
3	1.50	8.90	59.55
4	2.00	14.70	39.46
5	2.50	19.00	22.63
6	3.00	21.80	12.84
7	3.50	23.40	6.84
8	4.00	24.40	4.10
9	4.50	25.10	2.79
10	5.00	25.80	2.71
11	5.50	26.30	1.90
12	6.00	26.80	1.87
13	6.50	27.30	1.83
14	7.00	27.80	1.80
15	7.50	28.30	1.77
16	8.00	28.70	1.39
17	8.50	29.20	1.71
18	9.00	29.60	1.35
19	9.50	30.20	1.99
20	10.00	30.60	1.31
21	10.50	31.00	1.29
22	11.00	31.40	1.27

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(31.4 - 3.849594)(1)/(1) = +2.76E+01 g/L Carbon
(31.4 - 3.849594)(1)/(1)(12) = +2.30E+00 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1234 DUP Date: 06/11/96 Time: 10:47:24

Sample Size = 1 uL .25ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	1.50	80.00
3	1.51	7.70	80.52
4	2.00	45.20	82.96
5	2.50	111.80	59.57
6	3.00	168.10	33.49
7	3.50	213.50	21.26
8	4.00	246.10	13.25
9	4.50	270.60	9.05
10	5.00	292.80	7.58
11	5.50	313.40	6.57
12	6.00	323.90	3.24
13	6.50	340.50	4.88
14	7.00	350.90	2.96
15	7.50	358.50	2.12
16	8.00	364.80	1.73
17	8.50	369.80	1.35
18	9.00	373.80	1.07
19	9.50	377.40	0.95
20	10.00	380.30	0.76
21	10.50	383.10	0.73
22	11.00	385.40	0.60

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(385.4 - 24.74739)(1)/(1) = +3.607E+02 g/L Carbon
(385.4 - 24.74739)(1)/(1)(12) = +3.005E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jerre Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1234 TRIP Date: 06/11/96 Time: 11:00:06

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	4.10	68.29
3	1.51	9.80	58.16
4	2.00	15.60	37.18
5	2.50	20.20	22.77
6	3.00	22.90	11.79
7	3.50	24.70	7.29
8	4.00	25.70	3.89
9	4.50	26.60	3.38
10	5.00	27.50	3.27
11	5.50	28.10	2.14
12	6.00	28.80	2.43
13	6.50	29.40	2.04
14	7.00	30.00	2.00
15	7.50	30.70	2.28
16	8.00	31.10	1.29
17	8.50	31.70	1.89
18	9.00	32.50	2.46
19	9.50	32.80	0.91
20	10.00	33.30	1.50
21	10.50	33.80	1.48
22	11.00	34.40	1.74

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(34.4 - 3.849594)(1)/(1) = +3.06E+01 g/L Carbon
(34.4 - 3.849594)(1)/(1)(12) = +2.55E+00 Molar Carbon

Sample Run By: Jackie Steele 6/11 96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1234 TRIP Date: 06/11/96 Time: 11:12:06

Sample Size = 1 uL 250ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	1.50	60.00
3	1.51	7.10	78.87
4	2.01	38.80	81.70
5	2.51	96.20	59.67
6	3.01	144.40	33.38
7	3.51	188.10	23.23
8	4.00	217.60	13.56
9	4.50	240.40	9.48
10	5.00	262.10	8.28
11	5.50	281.00	6.73
12	6.00	295.40	4.87
13	6.50	307.40	3.90
14	7.00	316.90	3.00
15	7.50	324.80	2.43
16	8.00	331.20	1.93
17	8.50	336.90	1.69
18	9.00	341.40	1.32
19	9.50	345.00	1.04
20	10.00	348.10	0.89
21	10.50	350.70	0.74
22	11.00	352.90	0.62

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(352.9 - 24.74931)(1)/(1) = +3.282E+02 g/L Carbon
(352.9 - 24.74931)(1)/(1)(12) = +2.735E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001232 Date: 06/11/96 Time: 11:25:43

Sample Size = 1 uL , 250ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 ug/minute C

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	6.80	79.41
3	1.51	31.00	78.06
4	2.00	62.40	50.32
5	2.50	89.10	29.97
6	3.00	107.20	16.88
7	3.50	117.40	8.69
8	4.00	122.70	4.32
9	4.50	125.10	1.92
10	5.00	126.60	1.18
11	5.50	127.60	0.78
12	6.00	128.50	0.70
13	6.50	129.40	0.70
14	7.00	130.20	0.61
15	7.50	130.90	0.53
16	8.00	131.60	0.53
17	8.50	132.30	0.53
18	9.00	133.10	0.60
19	9.50	133.70	0.45
20	10.00	134.30	0.45
21	10.50	135.00	0.52
22	11.00	135.70	0.52

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(135.7 - 3.849957)(1)/(1) = +1.319E+02 g/L Carbon
(135.7 - 3.849957)(1)/(1)(12) = +1.099E+01 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001232 Date: 06/11/96 Time: 11:37:51

Sample Size = 1 uL , 250ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	0.60	66.67
3	1.50	0.90	33.33
4	2.00	1.20	25.00
5	2.50	1.70	29.41
6	3.00	3.20	46.88
7	3.50	8.90	64.04
8	4.00	20.30	56.16
9	4.50	33.20	38.86
10	5.00	43.00	22.79
11	5.50	50.40	14.68
12	6.00	57.90	12.95
13	6.50	65.70	11.87
14	7.00	74.10	11.34
15	7.50	82.50	10.18
16	8.00	91.60	9.93
17	8.50	100.40	8.76
18	9.00	109.40	8.23
19	9.50	117.90	7.21
20	10.00	126.00	6.43
21	10.50	133.50	5.62
22	11.00	140.30	4.85

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(140.3 - 24.74739)(1)/(1) = +1.156E+02 g/L Carbon
(140.3 - 24.74739)(1)/(1)(12) = +9.629E+00 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1232 DUP Date: 06/11/96 Time: 11:55:58

Sample Size = 1 uL, 250ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.70	0.00
2	1.01	7.80	78.21
3	1.51	35.90	78.27
4	2.00	69.90	48.64
5	2.50	96.70	27.71
6	3.00	112.70	14.20
7	3.50	120.70	6.63
8	4.00	124.30	2.90
9	4.50	126.30	1.58
10	5.00	127.80	1.17
11	5.50	128.70	0.70
12	6.00	129.60	0.69
13	6.50	130.30	0.54
14	7.00	131.10	0.61
15	7.50	131.90	0.61
16	8.00	132.70	0.60
17	8.50	133.30	0.45
18	9.00	134.30	0.74
19	9.50	134.80	0.37
20	10.00	135.60	0.59
21	10.50	136.20	0.44
22	11.00	136.90	0.51

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(136.9 - 3.849957)(1)/(1) = +1.331E+02 g/L Carbon
(136.9 - 3.849957)(1)/(1)(12) = +1.109E+01 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1232 DUP Date: 06/11/96 Time: 12:08:02

Sample Size = 1 uL , 250ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	8.20	90.24
3	1.50	40.90	79.95
4	2.00	142.90	71.38
5	2.50	264.30	45.93
6	3.00	351.40	24.79
7	3.50	401.90	12.57
8	4.00	439.10	8.47
9	4.50	462.70	5.10
10	5.00	482.10	4.02
11	5.50	501.80	3.93
12	6.00	515.50	2.66
13	6.50	536.30	3.88
14	7.00	546.80	1.92
15	7.50	554.90	1.46
16	8.00	562.10	1.28
17	8.50	568.00	1.04
18	9.00	572.90	0.86
19	9.50	577.10	0.73
20	10.00	580.60	0.60
21	10.50	583.50	0.50
22	11.00	585.90	0.41

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(585.9 - 24.75385)(1)/(1) = +5.611E+02 g/L Carbon
(585.9 - 24.75385)(1)/(1)(12) = +4.676E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1232 TRIP Date: 06/11/96 Time: 12:19:56

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = .35 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	2.10	0.00
2	1.01	9.40	77.66
3	1.51	38.00	75.26
4	2.00	72.20	47.37
5	2.50	99.60	27.51
6	3.00	116.60	14.58
7	3.50	125.40	7.02
8	4.00	129.60	3.24
9	4.50	131.80	1.67
10	5.00	133.30	1.13
11	5.50	134.50	0.89
12	6.00	135.50	0.74
13	6.50	136.50	0.73
14	7.00	137.40	0.66
15	7.50	138.50	0.79
16	8.00	139.10	0.43
17	8.50	140.10	0.71
18	9.00	140.90	0.57
19	9.50	141.70	0.56
20	10.00	142.60	0.63
21	10.50	143.30	0.49
22	11.00	144.00	0.49

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(144 - 3.849295)(1)/(1) = +1.402E+02 g/L Carbon
(144 - 3.849295)(1)/(1)(12) = +1.168E+01 Molar Carbon

Sample Run By: Jacque Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
HNC-SD-WM-DP-182, REV. 1

Sample: 1232 TRIP Date: 06/11/96 Time: 12:32:03

Sample Size = 1 uL 250nl
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	1.00	3.70	83.78
3	1.50	19.30	80.83
4	2.00	74.20	73.99
5	2.50	174.70	57.53
6	3.00	253.80	31.17
7	3.50	306.40	17.17
8	4.00	346.00	11.45
9	4.50	370.70	6.66
10	5.00	390.70	5.12
11	5.50	411.20	4.99
12	6.00	426.40	3.56
13	6.50	437.40	2.51
14	7.00	448.70	2.52
15	7.50	457.50	1.92
16	8.00	465.70	1.76
17	8.50	472.10	1.36
18	9.00	477.70	1.17
19	9.50	482.30	0.95
20	10.00	486.30	0.82
21	10.50	489.90	0.73
22	11.00	493.20	0.67

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(493.2 - 24.74739)(1)/(1) = +4.685E+02 g/L Carbon
(493.2 - 24.74739)(1)/(1)(12) = +3.904E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001631 Date: 06/11/96 Time: 12:46:25

Sample Size = 1 uL ; 1519g
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	381.10	99.03
3	1.51	1071.30	64.43
4	2.01	1455.90	26.42
5	2.51	1643.70	11.43
6	3.00	1754.80	6.33
7	3.50	1823.50	3.77
8	4.00	1862.00	2.07
9	4.50	1880.60	0.99
10	5.00	1889.30	0.46
11	5.50	1894.70	0.29
12	6.00	1898.80	0.22
13	6.50	1902.30	0.18
14	7.00	1905.20	0.15
15	7.50	1908.10	0.15
16	8.00	1910.90	0.15
17	8.50	1913.40	0.13
18	9.00	1915.70	0.12
19	9.50	1918.00	0.12
20	10.00	1920.10	0.11
21	10.50	1922.10	0.10
22	11.00	1924.00	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(1924 - 3.850577)(1)/(1) = +1.9201E+03 g/L Carbon
(1924 - 3.850577)(1)/(1)(12) = +1.6001E+02 Molar Carbon

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-182, REV. 1

Sample: S96T001631 Date: 06/11/96 Time: 12:59:44

Sample Size = 1 uL .1579g
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.30	0.00
2	1.01	91.20	97.48
3	1.51	381.80	76.11
4	2.00	862.90	55.75
5	2.50	1310.70	34.16
6	3.00	1494.80	12.32
7	3.50	1583.00	5.57
8	4.00	1632.10	3.01
9	4.50	1658.80	1.61
10	5.00	1672.50	0.82
11	5.50	1681.20	0.52
12	6.00	1687.50	0.37
13	6.50	1692.40	0.29
14	7.00	1696.50	0.24
15	7.50	1699.70	0.19
16	8.00	1702.40	0.16
17	8.50	1704.60	0.13
18	9.00	1706.60	0.12
19	9.50	1708.40	0.11
20	10.00	1710.10	0.10
21	10.50	1711.30	0.07
22	11.00	1712.90	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1712.9 - 24.74739)(1)/(1) = +1.6882E+03 g/L Carbon
(1712.9 - 24.74739)(1)/(1)(12) = +1.4068E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

HC-SD-WM-DP-182, REV. /

Sample: 1631 DUP Date: 06/11/96 Time: 13:11:52

Sample Size = 1 uL .1094g
Dil Factor = 1
Blank ID # =
Blank Value = .35 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.30	0.00
2	1.01	241.90	99.05
3	1.51	699.00	65.39
4	2.00	983.80	28.95
5	2.50	1145.00	14.08
6	3.00	1249.90	8.39
7	3.50	1316.00	5.02
8	4.00	1354.10	2.81
9	4.50	1372.40	1.33
10	5.00	1379.60	0.52
11	5.50	1383.80	0.30
12	6.00	1386.80	0.22
13	6.50	1389.10	0.17
14	7.00	1391.20	0.15
15	7.50	1393.10	0.14
16	8.00	1394.60	0.11
17	8.50	1396.20	0.11
18	9.00	1397.70	0.11
19	9.50	1399.10	0.10
20	10.00	1400.40	0.09
21	10.50	1401.60	0.09
22	11.00	1402.70	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(1402.7 - 3.849594)(1)/(1) = +1.3989E+03 g/L Carbon
(1402.7 - 3.849594)(1)/(1)(12) = +1.1657E+02 Molar Carbon

Sample Run By: Jacque Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1631 DUP Date: 06/11/96 Time: 13:23:51

Sample Size = 1 uL .1094g
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 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	39.40	96.19
3	1.51	209.90	81.23
4	2.00	532.00	60.55
5	2.50	895.80	40.61
6	3.00	1080.00	17.06
7	3.50	1170.10	7.70
8	4.00	1222.30	4.27
9	4.50	1251.80	2.36
10	5.00	1266.20	1.14
11	5.50	1274.70	0.67
12	6.00	1280.60	0.46
13	6.50	1285.10	0.35
14	7.00	1288.70	0.28
15	7.50	1291.50	0.22
16	8.00	1293.70	0.17
17	8.50	1295.90	0.17
18	9.00	1297.60	0.13
19	9.50	1299.30	0.13
20	10.00	1300.60	0.10
21	10.50	1301.80	0.09
22	11.00	1303.00	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1303 - 24.75151)(1)/(1) = +1.2782E+03 g/L Carbon
(1303 - 24.75151)(1)/(1)(12) = +1.0652E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1631 SPIKE Date: 06/11/96 Time: 13:36:16

Sample Size = 1 uL .0781g + .500 mL 22N12B
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	57.20	98.43
3	1.51	383.10	85.07
4	2.00	775.20	50.58
5	2.50	1036.50	25.21
6	3.00	1173.70	11.69
7	3.50	1251.70	6.23
8	4.00	1294.50	3.31
9	4.50	1312.80	1.39
10	5.00	1322.50	0.73
11	5.50	1347.50	1.86
12	6.00	1363.90	1.20
13	6.50	1370.50	0.48
14	7.00	1373.90	0.25
15	7.50	1376.20	0.17
16	8.00	1377.90	0.12
17	8.50	1379.50	0.12
18	9.00	1380.70	0.09
19	9.50	1382.00	0.09
20	10.00	1383.10	0.08
21	10.50	1384.10	0.07
22	11.00	1385.30	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(1385.3 - 3.849573)(1)/(1) = +1.3815E+03 g/L Carbon
(1385.3 - 3.849573)(1)/(1)(12) = +1.1512E+02 Molar Carbon

Sample Run By: Jacque Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1631 SPIKE Date: 06/11/96 Time: 13:49:43

Sample Size = 1 uL .0781g + .100ml 24N12A
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	12.10	89.26
3	1.51	66.20	81.72
4	2.00	200.00	66.90
5	2.50	467.60	57.23
6	3.00	679.50	31.18
7	3.50	776.60	12.50
8	4.00	831.70	6.62
9	4.50	862.70	3.59
10	5.00	875.80	1.50
11	5.50	881.50	0.65
12	6.00	885.50	0.45
13	6.50	888.50	0.34
14	7.00	890.70	0.25
15	7.50	892.80	0.24
16	8.00	894.40	0.18
17	8.50	895.90	0.17
18	9.00	897.30	0.16
19	9.50	898.50	0.13
20	10.00	899.60	0.12
21	10.50	900.70	0.12
22	11.00	901.70	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(901.7 - 24.75165)(1)/(1) = +8.769E+02 g/L Carbon
(901.7 - 24.75165)(1)/(1)(12) = +7.308E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001632 Date: 06/11/96 Time: 14:01:41

Sample Size = 1 uL , 241 eg
Dil Factor = 1
Blank ID # =
Blank Value = .35 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	155.40	99.36
3	1.51	599.30	74.07
4	2.00	973.70	38.45
5	2.50	1227.80	20.70
6	3.00	1385.30	11.37
7	3.50	1483.90	6.64
8	4.00	1545.20	3.97
9	4.50	1581.50	2.30
10	5.00	1601.30	1.24
11	5.50	1611.50	0.63
12	6.00	1618.80	0.45
13	6.50	1624.80	0.37
14	7.00	1630.60	0.36
15	7.50	1635.00	0.27
16	8.00	1638.80	0.23
17	8.50	1642.10	0.20
18	9.00	1644.90	0.17
19	9.50	1647.60	0.16
20	10.00	1649.90	0.14
21	10.50	1652.60	0.16
22	11.00	1655.00	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(1655 - 3.850513)(1)/(1) = +1.6511E+03 g/L Carbon
(1655 - 3.850513)(1)/(1)(12) = +1.3760E+02 Molar Carbon

Sample Run By: Jesse Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001632 Date: 06/11/96 Time: 14:13:40

Sample Size = 1 uL .241eg
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.50	0.00
2	1.01	60.00	94.17
3	1.50	380.70	84.24
4	2.00	1013.50	62.44
5	2.50	1749.90	42.08
6	3.00	2195.70	20.30
7	3.50	2341.50	6.23
8	4.00	2427.90	3.56
9	4.50	2482.10	2.18
10	5.00	2512.90	1.23
11	5.50	2528.40	0.61
12	6.00	2537.80	0.37
13	6.50	2544.50	0.26
14	7.00	2549.70	0.20
15	7.50	2553.90	0.16
16	8.00	2557.30	0.13
17	8.50	2560.10	0.11
18	9.00	2562.60	0.10
19	9.50	2564.50	0.07
20	10.00	2566.00	0.06
21	10.50	2567.70	0.07
22	11.00	2569.00	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(2569 - 24.74506)(1)/(1) = +2.5443E+03 g/L Carbon
(2569 - 24.74506)(1)/(1)(12) = +2.1202E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/11/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1632 DUP Date: 06/11/96 Time: 14:27:14

Sample Size = 1 uL .1865g
Dil Factor = 1
Blank ID # =
Blank Value = .35 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	4.20	0.00
2	1.01	273.30	98.46
3	1.51	741.80	63.16
4	2.01	1021.50	27.38
5	2.50	1176.80	13.20
6	3.00	1283.20	8.29
7	3.51	1361.20	5.73
8	4.00	1413.40	3.69
9	4.50	1443.50	2.09
10	5.00	1456.70	0.91
11	5.50	1463.20	0.44
12	6.00	1468.00	0.33
13	6.50	1471.90	0.26
14	7.00	1475.10	0.22
15	7.50	1478.10	0.20
16	8.00	1480.70	0.18
17	8.50	1483.10	0.16
18	9.00	1485.00	0.13
19	9.50	1487.00	0.13
20	10.00	1488.90	0.13
21	10.50	1490.60	0.11
22	11.00	1492.30	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 3.849936 micrograms carbon
BLANK FACTOR = 3.849936 / 10.99982 = +3.5E-01 ug/min Carbon

SAMPLE RESULTS:
(1492.3 - 3.849594)(1)/(1) = +1.4885E+03 g/L Carbon
(1492.3 - 3.849594)(1)/(1)(12) = +1.2404E+02 Molar Carbon

Sample Run By: Jacque Steele 6/11/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1632 DUP Date: 06/11/96 Time: 14:39:24

Sample Size = 1 uL ,1865g
Dil Factor = 1
Blank ID # =
Blank Value = 2.25 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.80	0.00
2	1.01	49.10	94.30
3	1.51	272.30	81.97
4	2.00	756.10	63.99
5	2.50	1284.80	41.15
6	3.00	1532.30	16.15
7	3.50	1640.20	6.58
8	4.00	1709.60	4.06
9	4.50	1753.30	2.49
10	5.00	1777.60	1.37
11	5.50	1789.50	0.66
12	6.00	1796.90	0.41
13	6.50	1802.20	0.29
14	7.00	1806.20	0.22
15	7.50	1809.60	0.19
16	8.00	1812.30	0.15
17	8.50	1814.70	0.13
18	9.00	1816.60	0.10
19	9.50	1818.50	0.10
20	10.00	1820.10	0.09
21	10.50	1821.40	0.07
22	11.00	1822.70	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 24.74959 micrograms carbon
BLANK FACTOR = 24.74959 / 10.99982 = +2.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1822.7 - 24.74959)(1)/(1) = +1.7980E+03 g/L Carbon
(1822.7 - 24.74959)(1)/(1)(12) = +1.4983E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jaime Steele 6/11/96
JL STEELE 00000

LABCORE Data Entry Template for Worklist# 7234

Analyst: JLS2 **Instrument:** CARB2 _____ **Book#** 22N12B 24N12A

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: U-105 TICTOC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	SOLID		
2	STD				@TICTOC1	SOLID		
3	SAMPLE	S96T001300	0		@TICTOC1	SOLID	96000143	U-105 (R)
		Analytes Requested: TIC-02 , TOC-02						
4	DUP	S96T001300	0		@TICTOC1	SOLID		
5	SPK	S96T001300	0		@TICTOC1	SOLID		
6	SAMPLE	S96T001290	0		@TICTOC1	SOLID	96000143	U-105 (R)
		Analytes Requested: TIC-02 , TOC-02						
7	DUP	S96T001290	0		@TICTOC1	SOLID		
8	SAMPLE	S96T001307	0		@TICTOC1	SOLID	96000143	U-105 (R)
		Analytes Requested: TIC-02 , TOC-02						
9	DUP	S96T001307	0		@TICTOC1	SOLID		

Final page for worklist # 7234

Jackie Steele 6/3/96
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# 7234

Analyst: jls2 **Instrument:** CARB2 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: U-105 TICTOC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK			0	@TICTOC1 TIC-02	SOLID	1	1.80E+0	1.800	ug/g
1	BLNK			0	@TICTOC1 TOC-02	SOLID	1	2.00E+0	2.000	ug/g
2	STD			0	@TICTOC1 TIC-02	SOLID	6.02E+02	6.06E+2	100.664	% Recovery
2	STD			0	@TICTOC1 TOC-02	SOLID	3.00E+03	2.88E+3	96.000	% Recovery
3	SAMPLE	S96T001300		0	@TICTOC1 TIC-02	SOLID	N/A	5.84E+03	5.000	ug/g
3	SAMPLE	S96T001300		0	@TICTOC1 TOC-02	SOLID	N/A	1.06E+04	40.000	ug/g
4	DUP	S96T001300		0	@TICTOC1 TIC-02	SOLID	5.84E+3	6.00E+3	2.703	RPD
4	DUP	S96T001300		0	@TICTOC1 TOC-02	SOLID	1.06E+4	1.11E+4	4.608	RPD
5	SPK	S96T001300		0	@TICTOC1 TIC-02	SOLID	1.00E+02	1.04E+02	104.000	% Recovery
5	SPK	S96T001300		0	@TICTOC1 TOC-02	SOLID	1.00E+02	1.05E+02	105.000	% Recovery
6	SAMPLE	S96T001290		0	@TICTOC1 TIC-02	SOLID	N/A	1.23E+04	5.000	ug/g
6	SAMPLE	S96T001290		0	@TICTOC1 TOC-02	SOLID	N/A	1.16E+04	40.000	ug/g
7	DUP	S96T001290		0	@TICTOC1 TIC-02	SOLID	1.23E+4	1.21E+4	1.639	RPD
7	DUP	S96T001290		0	@TICTOC1 TOC-02	SOLID	1.16E+4	1.17E+4	0.858	RPD
8	SAMPLE	S96T001307		0	@TICTOC1 TIC-02	SOLID	N/A	8.38E+03	5.000	ug/g
8	SAMPLE	S96T001307		0	@TICTOC1 TOC-02	SOLID	N/A	1.54E+04	40.000	ug/g
9	DUP	S96T001307		0	@TICTOC1 TIC-02	SOLID	8.38E+3	8.48E+3	1.186	RPD
9	DUP	S96T001307		0	@TICTOC1 TOC-02	SOLID	1.54E+4	1.54E+4	0.000	RPD

Final page for worklist# 7234

Attach 6-4-96
Analyst Signature **Date**

Analyst Signature **Date**

Robert N Schroeder 6/4/96
Reviewer Signature **Date**

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

LABCORE Data Entry Template for Worklist# 7234

Analyst: JLS2 **Instrument:** CARB2 **Book #** 22N12B TIC 24N12A TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: U-105 TICTOC. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	1.8	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	2.0	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02^{E2}	6.06^{E2}	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00^{E3}	2.88^{E3}	N/A	ug/g
96000143	U-105 (R)	3	SAMPLE	S96T001300	0		@TICTOC1 TIC-02	SOLID	N/A	5.84^{E3}		ug/g
96000143	U-105 (R)	3	SAMPLE	S96T001300	0		@TICTOC1 TOC-02	SOLID	N/A	1.06^{E4}		ug/g
96000143	U-105 (R)	4	DUP	S96T001300	0		@TICTOC1 TIC-02	SOLID	5.84^{E3}	6.00^{E3}	N/A	ug/g
96000143	U-105 (R)	4	DUP	S96T001300	0		@TICTOC1 TOC-02	SOLID	1.06^{E4}	1.10^{E4}	N/A	ug/g
96000143	U-105 (R)	5	SPK	S96T001300	0		@TICTOC1 TIC-02	SOLID	100	104	N/A	ug/g
96000143	U-105 (R)	5	SPK	S96T001300	0		@TICTOC1 TOC-02	SOLID	100	105	N/A	ug/g
96000143	U-105 (R)	6	SAMPLE	S96T001290	0		@TICTOC1 TIC-02	SOLID	N/A	1.23^{E4}		ug/g
96000143	U-105 (R)	6	SAMPLE	S96T001290	0		@TICTOC1 TOC-02	SOLID	N/A	1.18^{E4}		ug/g
96000143	U-105 (R)	7	DUP	S96T001290	0		@TICTOC1 TIC-02	SOLID	1.23^{E4}	1.21^{E4}	N/A	ug/g
96000143	U-105 (R)	7	DUP	S96T001290	0		@TICTOC1 TOC-02	SOLID	1.18^{E4}	1.17^{E3}	N/A	ug/g
96000143	U-105 (R)	8	SAMPLE	S96T001307	0		@TICTOC1 TIC-02	SOLID	N/A	8.38^{E3}		ug/g
96000143	U-105 (R)	8	SAMPLE	S96T001307	0		@TICTOC1 TOC-02	SOLID	N/A	1.54^{E4}		ug/g
96000143	U-105 (R)	9	DUP	S96T001307	0		@TICTOC1 TIC-02	SOLID	8.38^{E3}	8.48^{E3}	N/A	ug/g
96000143	U-105 (R)	9	DUP	S96T001307	0		@TICTOC1 TOC-02	SOLID	1.54^{E4}	1.54^{E4}	N/A	ug/g

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# 7234

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT

Final page for worklist # 7234

Jacque Steele 6/3/96
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.

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0000	0.0000
BLNK	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	5.9	21.3
7234	µg of Carbon from Baseline	(C2)	4.1	23.3

Test Code	@TICTOC1
Matrix	SOLID
Batch Number	96002901
Rerun	0
Sample Prep	N/A
Sample #	BLNK
Instrument Code	CARB2
Prepared By	RTS
Chemistry	RWS
Analyst	JLS2
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

µg of Carbon = |C1-C2|

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon	1.80E+00	2.00E+00

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/4/96

BLANK.WB1 REV 1.0 342100ML

WORKBOOK PAGE: STD2

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	1.0000	0.2000
STD	Dilution Factor	(DF)	1	1
Work List	Final Coulometer Reading in µg	(C1)	610.5	600.2
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
Test Code	Standard Book Number		22N12B	24N12A
@TICTOC1	Standard Value (µg/ml)		602	3000

Matrix: LIQUID

Batch Number: 96002901

Rerun: 0

Sample Prep: N/A

Sample #: STD

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/04/96

Analysis Date: 06/03/96

Analysis Time:

Sample Point: U-105

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	3.00E+03
QC Found in µg/mL	6.06E+02	2.88E+03
Percent Standard Recovery	100.7	96.2

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	Rui Schroeder	Date:	6/4/96

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.2245	0.2245
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1315.4	2406.1
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96002901
Rerun	0
Sample Prep	N/A
Sample #	S96T001300
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	5.84E+03	1.06E+04

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	Ruj Schroeder	Date:	6/4/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1148	0.1148
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	692.8	1292.5
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
Test Code	Known µg of C from Original Sample		5.84E+3	1.06E+4
@TICTOC1				

Matrix: SOLID

Batch Number: 96002901

Rerun: 0

Sample Prep: N/A

Sample #: S96T001300

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: JLS2

Date Complete: 06/04/96

Analysis Date: 06/03/96

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
Analysis Time	Method Detection Limit in ug/g	5	40
Sample Point	µg of Carbon/g	6.00E+03	1.11E+04
U-105	RPD (of Sam and Dup Results)	2.7%	~~4.2%~~

4.6 RWS 6/4/96

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	Ruth Schroeder	Date:	6/4/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (C-0) SOLIDS

Type	Sample Vial Data		TIC	TOC
SPK	Sample Size in g	(SS)	0.2245	0.2245
Work List	Final Coulometer Reading in µg	(C1)	1315.4	2406.1
7234	Spiked Vial Data			
Test Code	Sample Size in g	(SPK SS)	0.0737	0.0737
@TICTOC1	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg	(C3)	764.2	1149.1
SOLID	Spike Book Number		22N12B	24N12A
Batch Number	Spike Standard Value in µg/ml		602	3000
96002901	Spike Concentration in µg	(SPK CONC)	301	300
Rerun 1				
0				
Sample Prep				
N/A				
Sample #				
S96T001300				
Instrument Code				
CARB2				
Prepared By				
RTS				
Chemist				
RWS				
Analyst				
JLS2				
Date Complete				
06/04/96				
Analysis Date				
06/03/96				
Analysis Time				
Sample Point				
U-105				

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	3.00E+03
QC Found in µg/mL	6.28E+02	3.16E+03
Percent Spike Recovery	104.3	105.4

Ru Schmoeller 6/4/96

WORKBOOK PAGE: SAM6

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1162	0.1162
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1435.1	1366.2
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96002901
Rerun	0
Sample Prep	N/A
Sample #	S96T001290
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	1.23E+04	1.16E+04

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/4/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP7

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1124	0.1124
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1366.1	1341.9
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
Test Code	Known µg of C from Original Sample		1.23E+4	1.16E+4
@TICTOC1				

Matrix	SOLID
Batch Number	96002901
Rerun #	0
Sample Prep	N/A
Sample #	S96T001290
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	1.21E+04	1.17E+04
RPD (of Sam and Dup Results)	1.5%	1.1%

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	RW Schroeder	Date:	6/4/96

SAMPLE.WB1 REV 1.0 342100ML

0.1

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1797	0.1797
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1510.8	2798.2
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
TestCode				
@TICTOC1				

Matrix	SOLID
Batch Number	96002902
Rerun	0
Sample Prep	N/A
Sample #	S96T001307
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	8.38E+03	1.54E+04

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	Ru Schroeder	Date:	6/4/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP9

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1512	0.1512
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1286.6	2347.4
7234	µg of Carbon from Baseline	(C2)	4.1	23.3
Test Code	Known µg of C from Original Sample		8.38E+3	1.54E+4
@TICTOC1				

Matrix	SOLID
Batch Number	96002902
Rerun	0
Sample Prep	N/A
Sample #	S96T001307
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	JLS2
Date Complete	06/04/96
Analysis Date	06/03/96
Analysis Time	
Sample Point	U-105

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	8.48E+03	1.54E+04
RPD (of Sam and Dup Results)	1.2%	~~0.2%~~ 0.0 RWS 6/4/96

Data Entered By:	RTS	Date:	06/04/96
Signature of Chemist:	Ruy Schneider	Date:	6/4/96

SAMPLE.WB1 REV 1.0 342100ML

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 06/03/96 Time: 09:34:06

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	0.60	100.00
3	1.50	1.10	45.45
4	2.00	1.50	26.67
5	2.50	1.70	11.76
6	3.00	1.90	10.53
7	3.50	2.10	9.52
8	4.00	2.20	4.55
9	4.50	2.40	8.33
10	5.00	2.60	7.69
11	5.50	2.70	3.70
12	6.00	2.80	3.57
13	6.50	3.00	6.67
14	7.00	3.10	3.23
15	7.50	3.30	6.06
16	8.00	3.40	2.94
17	8.50	3.50	2.86
18	9.00	3.60	2.78
19	9.50	3.80	5.26
20	10.00	4.00	5.00
21	10.50	4.00	0.00
22	11.00	4.10	2.44

BLANK VALUE = 4.1 micrograms carbon
BLANK FACTOR = 4.1 / 10.99884 = +3.7E-01 ug/min Carbon

Sample Run By: Jacque Steele 6/3/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 06/03/96 Time: 09:47:34

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	1.00	1.00	100.00
3	1.50	4.10	75.61
4	2.00	9.70	57.73
5	2.50	14.40	32.64
6	3.00	17.20	16.28
7	3.50	18.40	6.52
8	4.00	19.10	3.66
9	4.50	19.50	2.05
10	5.00	19.90	2.01
11	5.50	20.20	1.49
12	6.00	20.60	1.94
13	6.50	20.90	1.44
14	7.00	21.20	1.42
15	7.50	21.40	0.93
16	8.00	21.70	1.38
17	8.50	21.90	0.91
18	9.00	22.20	1.35
19	9.50	22.30	0.45
20	10.00	22.60	1.33
21	10.50	22.90	1.31
22	11.00	23.30	1.72

BLANK VALUE = 23.3 micrograms carbon
BLANK FACTOR = 23.3 / 11.00043 = +2.12E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 6/3/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12B Date: 06/03/96 Time: 10:01:42

Sample Size = 1 uL 1ml
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	32.40	99.38
3	1.51	191.80	83.11
4	2.00	359.70	46.68
5	2.50	475.00	24.27
6	3.00	545.40	12.91
7	3.50	582.40	6.35
8	4.00	598.30	2.66
9	4.50	604.60	1.04
10	5.00	606.90	0.38
11	5.50	607.90	0.16
12	6.00	608.40	0.08
13	6.50	608.70	0.05
14	7.00	609.00	0.05
15	7.50	609.30	0.05
16	8.00	609.40	0.02
17	8.50	609.70	0.05
18	9.00	609.80	0.02
19	9.50	610.00	0.03
20	10.00	610.20	0.03
21	10.50	610.40	0.03
22	11.00	610.50	0.02

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(610.5 - 4.069932)(1)/(1) = +6.064E+02 g/L Carbon
(610.5 - 4.069932)(1)/(1)(12) = +5.054E+01 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JLSTEELE 00000

$\frac{606.4}{602} = 100.73\%$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 24N12A Date: 06/03/96 Time: 10:14:11

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 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	9.80	98.98
3	1.51	72.00	86.39
4	2.01	253.80	71.63
5	2.51	440.60	42.40
6	3.01	534.90	17.63
7	3.51	575.70	7.09
8	4.01	589.30	2.31
9	4.50	593.50	0.71
10	5.00	595.10	0.27
11	5.50	596.00	0.15
12	6.00	596.60	0.10
13	6.50	597.20	0.10
14	7.00	597.50	0.05
15	7.50	597.90	0.07
16	8.00	598.30	0.07
17	8.50	598.60	0.05
18	9.00	598.90	0.05
19	9.50	599.30	0.07
20	10.00	599.60	0.05
21	10.50	599.90	0.05
22	11.00	600.20	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(600.2 - 23.32142)(1)/(1) = +5.769E+02 g/L Carbon
(600.2 - 23.32142)(1)/(1)(12) = +4.807E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 6/3/96
JL STEELE 00000

$\frac{576.9}{.200ml} = \frac{2884.5}{3.00^{E3}} = 96.15\%$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 06/03/96 Time: 10:30:11

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	1.60	81.25
3	1.51	2.30	30.43
4	2.00	2.80	17.86
5	2.50	3.10	9.68
6	3.00	3.40	8.82
7	3.50	3.50	2.86
8	4.00	3.70	5.41
9	4.50	3.90	5.13
10	5.00	4.00	2.50
11	5.50	4.20	4.76
12	6.00	4.40	4.55
13	6.50	4.60	4.35
14	7.00	4.70	2.13
15	7.50	4.90	4.08
16	8.00	5.00	2.00
17	8.50	5.10	1.96
18	9.00	5.30	3.77
19	9.50	5.40	1.85
20	10.00	5.60	3.57
21	10.50	5.70	1.75
22	11.00	5.90	3.39

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(5.9 - 4.069887)(1)/(1) = +1.8E+00 g/L Carbon
(5.9 - 4.069887)(1)/(1)(12) = +1.5E-01 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

|5.90 - 4.10| = 1.8

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 06/03/96 Time: 10:44:28

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 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	1.10	100.00
3	1.51	4.30	74.42
4	2.01	9.40	54.26
5	2.51	13.30	29.32
6	3.01	15.80	15.82
7	3.51	16.90	6.51
8	4.00	17.70	4.52
9	4.50	18.10	2.21
10	5.00	18.60	2.69
11	5.50	18.80	1.06
12	6.00	19.10	1.57
13	6.50	19.30	1.04
14	7.00	19.50	1.03
15	7.50	19.80	1.52
16	8.00	20.00	1.00
17	8.50	20.20	0.99
18	9.00	20.40	0.98
19	9.50	20.70	1.45
20	10.00	20.80	0.48
21	10.50	21.10	1.42
22	11.00	21.30	0.94

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(21.3 - 23.32142)(1)/(1) = < 5.00 E-3 g/L Carbon
(21.3 - 23.32142)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

|21.30 - 23.30| = 2.0

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001300 Date: 06/03/96 Time: 11:10:00

Sample Size = 1 uL .2245g
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	33.60	99.70
3	1.51	288.50	88.35
4	2.00	537.50	46.33
5	2.50	706.00	23.87
6	3.00	844.70	16.42
7	3.50	943.50	10.47
8	4.01	1013.90	6.94
9	4.50	1069.40	5.19
10	5.00	1136.30	5.89
11	5.50	1189.50	4.47
12	6.00	1231.50	3.41
13	6.50	1264.40	2.60
14	7.00	1283.60	1.50
15	7.50	1293.30	0.75
16	8.00	1299.80	0.50
17	8.50	1304.50	0.36
18	9.00	1307.80	0.25
19	9.50	1310.20	0.18
20	10.00	1312.20	0.15
21	10.50	1313.90	0.13
22	11.00	1315.40	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(1315.4 - 4.069571)(1)/(1) = +1.3113E+03 g/L Carbon
(1315.4 - 4.069571)(1)/(1)(12) = +1.0928E+02 Molar Carbon

Sample Run By: Jacob Steele 6/3/96
JL STEELE 00000

$\frac{1311.3}{.2245} = 5.841 E3$

HNC-SD-WM-DP-182, REV. 1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001300 Date: 06/03/96 Time: 11:30:08

Sample Size = 1 uL .2245g
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.80	0.00
2	1.01	11.90	84.87
3	1.51	151.30	92.13
4	2.00	445.40	66.03
5	2.50	952.70	53.25
6	3.00	1529.70	37.72
7	3.50	1899.10	19.45
8	4.00	2093.50	9.29
9	4.50	2202.30	4.94
10	5.00	2269.10	2.94
11	5.50	2309.90	1.77
12	6.00	2335.50	1.10
13	6.50	2352.80	0.74
14	7.00	2365.30	0.53
15	7.50	2374.60	0.39
16	8.00	2382.00	0.31
17	8.50	2387.90	0.25
18	9.00	2392.80	0.20
19	9.50	2396.90	0.17
20	10.00	2400.40	0.15
21	10.50	2403.40	0.12
22	11.00	2406.10	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(2406.1 - 23.31754)(1)/(1) = +2.3828E+03 g/L Carbon
(2406.1 - 23.31754)(1)/(1)(12) = +1.9857E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 6/3/96
JL STEELE 00000

$\frac{2382.8}{.2245g} = 1.0614^{E4}$

1474

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1300 DUP Date: 06/03/96 Time: 11:43:32

Sample Size = 1 uL .1148g
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	27.40	96.72
3	1.51	187.70	85.40
4	2.00	346.60	45.85
5	2.50	452.50	23.40
6	3.00	523.10	13.50
7	3.50	568.20	7.94
8	4.00	594.60	4.44
9	4.50	613.90	3.14
10	5.00	634.30	3.22
11	5.50	651.70	2.67
12	6.00	664.40	1.91
13	6.50	673.00	1.28
14	7.00	678.30	0.78
15	7.50	681.90	0.53
16	8.00	684.70	0.41
17	8.50	686.60	0.28
18	9.00	688.20	0.23
19	9.50	689.60	0.20
20	10.00	690.80	0.17
21	10.50	691.90	0.16
22	11.00	692.80	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(692.8 - 4.069255)(1)/(1) = +6.887E+02 g/L Carbon
(692.8 - 4.069255)(1)/(1)(12) = +5.739E+01 Molar Carbon

Sample Run By: Jacque Steele 6/3/96
JL STEELE 00000

$\frac{688.7}{.1148g} = 5.999E3$ 1475

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1300 DUP Date: 06/03/96 Time: 11:55:28

Sample Size = 1 uL .1148g
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 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	13.50	92.59
3	1.51	138.60	90.26
4	2.00	381.80	63.70
5	2.50	724.90	47.33
6	3.01	972.20	25.44
7	3.51	1104.60	11.99
8	4.01	1176.80	6.14
9	4.50	1219.30	3.49
10	5.00	1242.30	1.85
11	5.50	1255.10	1.02
12	6.00	1263.60	0.67
13	6.50	1269.90	0.50
14	7.00	1274.80	0.38
15	7.50	1278.60	0.30
16	8.00	1281.70	0.24
17	8.50	1284.30	0.20
18	9.00	1286.40	0.16
19	9.50	1288.20	0.14
20	10.00	1289.80	0.12
21	10.50	1291.20	0.11
22	11.00	1292.50	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(1292.5 - 23.31948)(1)/(1) = +1.2692E+03 g/L Carbon
(1292.5 - 23.31948)(1)/(1)(12) = +1.0577E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{1269.2}{.1148g} = 1.1056^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1300 SPIKE Date: 06/03/96 Time: 12:07:56

Sample Size = 1 uL .0737 +
Dil Factor = 1 .500ml 22N12B
Blank ID # =
Blank Value = .37 ug/minute C

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	35.90	96.10
3	1.51	210.60	82.95
4	2.00	401.20	47.51
5	2.50	539.40	25.62
6	3.00	629.70	14.34
7	3.50	686.90	8.33
8	4.00	720.50	4.66
9	4.50	737.70	2.33
10	5.00	746.00	1.11
11	5.50	750.40	0.59
12	6.00	753.20	0.37
13	6.50	755.20	0.26
14	7.00	756.60	0.19
15	7.50	757.90	0.17
16	8.00	759.00	0.14
17	8.50	760.10	0.14
18	9.00	761.00	0.12
19	9.50	761.90	0.12
20	10.00	762.70	0.10
21	10.50	763.50	0.10
22	11.00	764.20	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(764.2 - 4.069887)(1)/(1) = +7.601E+02 g/L Carbon
(764.2 - 4.069887)(1)/(1)(12) = +6.334E+01 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$$\frac{764.20}{\frac{131540}{.2245} \times .0737 \div 300} = \frac{764.20}{737.83} = 104.42\%$$

HC-SD-WM-DP-182, REV. 1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1300 SPIKE Date: 06/03/96 Time: 12:20:56

Sample Size = 1 uL .0737g +
Dil Factor = 1
Blank ID # = .100ml 24N12A
Blank Value = 2.12 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	8.30	90.36
3	1.50	76.20	89.11
4	2.00	247.90	69.26
5	2.50	545.70	54.57
6	3.00	811.60	32.76
7	3.50	960.50	15.50
8	4.00	1039.60	7.61
9	4.50	1083.90	4.09
10	5.00	1107.00	2.09
11	5.50	1118.50	1.03
12	6.00	1125.40	0.61
13	6.50	1130.50	0.45
14	7.00	1134.40	0.34
15	7.50	1137.40	0.26
16	8.00	1139.80	0.21
17	8.50	1142.00	0.19
18	9.00	1143.70	0.15
19	9.50	1145.30	0.14
20	10.00	1146.80	0.13
21	10.50	1148.00	0.10
22	11.00	1149.10	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(1149.1 - 23.31935)(1)/(1) = +1.1258E+03 g/L Carbon
(1149.1 - 23.31935)(1)/(1)(12) = +9.3815E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jasmine Steele 6/3/96
JL STEELE 00000

$$\frac{1149.10}{\frac{2406.10}{.2245} \times .0737 + 300} = \frac{1149.10}{1089.89} = 105.43\%$$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

IC-SD-WM-DP-182, REV. 1

Sample: S96T001290 Date: 06/03/96 Time: 12:33:04

Sample Size = 1 uL .1162g
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	71.40	98.60
3	1.51	504.20	85.84
4	2.01	827.30	39.05
5	2.51	1017.80	18.72
6	3.00	1135.40	10.36
7	3.50	1212.30	6.34
8	4.00	1271.90	4.69
9	4.50	1320.30	3.67
10	5.00	1352.10	2.35
11	5.50	1372.50	1.49
12	6.00	1391.30	1.35
13	6.50	1404.90	0.97
14	7.00	1414.50	0.68
15	7.50	1420.80	0.44
16	8.00	1424.70	0.27
17	8.50	1427.30	0.18
18	9.00	1429.40	0.15
19	9.50	1431.10	0.12
20	10.00	1432.50	0.10
21	10.50	1433.80	0.09
22	11.00	1435.10	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(1435.1 - 4.070249)(1)/(1) = +1.4310E+03 g/L Carbon
(1435.1 - 4.070249)(1)/(1)(12) = +1.1925E+02 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{1431.0}{.1162g} = 1.2315^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001290 Date: 06/03/96 Time: 13:35:51

Sample Size = 1 uL ~~1.1649~~ JS
Dil Factor = 1
Blank ID # = .1162g
Blank Value = 2.12 ug/minute C

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	11.20	87.50
3	1.51	100.50	88.86
4	2.00	294.70	65.90
5	2.50	592.00	50.22
6	3.00	889.70	33.46
7	3.50	1079.30	17.57
8	4.00	1186.70	9.05
9	4.50	1251.70	5.19
10	5.00	1291.00	3.04
11	5.50	1313.10	1.68
12	6.00	1325.80	0.96
13	6.50	1331.10	0.40
14	7.00	1339.70	0.64
15	7.50	1346.40	0.50
16	8.00	1351.10	0.35
17	8.50	1354.80	0.27
18	9.00	1357.80	0.22
19	9.50	1360.30	0.18
20	10.00	1362.50	0.16
21	10.50	1364.40	0.14
22	11.00	1366.20	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(1366.2 - 23.31754)(1)/(1) = +1.3429E+03 g/L Carbon
(1366.2 - 23.31754)(1)/(1)(12) = +1.1191E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{1342.9}{\cancel{1184}\ .1162} = \cancel{1.1947E4}\ JS$ 1.1557^{E4} 1480

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1290 DUP Date: 06/03/96 Time: 13:49:49

Sample Size = 1 uL .1124g
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	40.70	99.02
3	1.50	198.30	79.48
4	2.00	393.70	49.63
5	2.50	583.30	32.50
6	3.00	739.10	21.08
7	3.50	883.50	16.34
8	4.00	995.90	11.29
9	4.50	1084.30	8.15
10	5.00	1164.40	6.88
11	5.50	1227.10	5.11
12	6.00	1273.30	3.63
13	6.50	1302.30	2.23
14	7.00	1317.20	1.13
15	7.50	1326.20	0.68
16	8.00	1332.50	0.47
17	8.50	1337.20	0.35
18	9.00	1345.20	0.59
19	9.50	1353.90	0.64
20	10.00	1359.50	0.41
21	10.50	1363.30	0.28
22	11.00	1366.10	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(1366.1 - 4.069932)(1)/(1) = +1.3620E+03 g/L Carbon
(1366.1 - 4.069932)(1)/(1)(12) = +1.1350E+02 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{1362.0}{.1124g} = 1.2117E4$

1181

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1290 DUP Date: 06/03/96 Time: 14:18:51

Sample Size = 1 uL .1124g
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.30	0.00
2	1.01	16.20	85.80
3	1.51	137.20	88.19
4	2.00	359.80	61.87
5	2.50	682.10	47.25
6	3.00	960.00	28.95
7	3.50	1119.90	14.28
8	4.00	1206.60	7.19
9	4.50	1258.10	4.09
10	5.00	1287.30	2.27
11	5.50	1302.60	1.17
12	6.00	1311.70	0.69
13	6.50	1318.00	0.48
14	7.00	1322.90	0.37
15	7.50	1326.90	0.30
16	8.00	1329.90	0.23
17	8.50	1332.70	0.21
18	9.00	1335.10	0.18
19	9.50	1337.00	0.14
20	10.00	1338.70	0.13
21	10.50	1340.30	0.12
22	11.00	1341.90	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(1341.9 - 23.31935)(1)/(1) = +1.3186E+03 g/L Carbon
(1341.9 - 23.31935)(1)/(1)(12) = +1.0988E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 6/3/96
JL STEELE 00000

$\frac{1318.6}{.1124} = 1.173183$ 1482

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001307 Date: 06/03/96 Time: 14:35:25

Sample Size = 1 uL .1797g
Dil Factor = 1
Blank ID # =
Blank Value = .37 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	126.90	98.82
3	1.50	461.30	72.49
4	2.00	843.40	45.30
5	2.50	1094.40	22.93
6	3.00	1238.60	11.64
7	3.50	1329.40	6.83
8	4.00	1388.20	4.24
9	4.50	1423.80	2.50
10	5.00	1444.20	1.41
11	5.50	1456.80	0.86
12	6.00	1466.20	0.64
13	6.50	1473.70	0.51
14	7.00	1480.00	0.43
15	7.50	1485.50	0.37
16	8.00	1490.10	0.31
17	8.50	1494.50	0.29
18	9.00	1498.10	0.24
19	9.50	1501.50	0.23
20	10.00	1504.90	0.23
21	10.50	1507.80	0.19
22	11.00	1510.80	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(1510.8 - 4.070249)(1)/(1) = +1.5067E+03 g/L Carbon
(1510.8 - 4.070249)(1)/(1)(12) = +1.2556E+02 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{1506.7}{.1797g} = 8.384^{E3}$

WHC-SD-WM-DP-182, REV. 1

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001307 Date: 06/03/96 Time: 14:47:44

Sample Size = 1 uL .1797g
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	7.60	0.00
2	1.01	29.70	74.41
3	1.51	209.60	85.83
4	2.00	571.80	63.34
5	2.50	1105.30	48.27
6	3.00	1726.60	35.98
7	3.50	2152.90	19.80
8	4.00	2379.30	9.52
9	4.50	2512.40	5.30
10	5.00	2599.20	3.34
11	5.50	2657.70	2.20
12	6.00	2696.70	1.45
13	6.50	2722.50	0.95
14	7.00	2740.20	0.65
15	7.50	2753.30	0.48
16	8.00	2763.50	0.37
17	8.50	2771.80	0.30
18	9.00	2779.00	0.26
19	9.50	2785.10	0.22
20	10.00	2789.90	0.17
21	10.50	2794.20	0.15
22	11.00	2798.20	0.14

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(2798.2 - 23.32155)(1)/(1) = +2.7749E+03 g/L Carbon
(2798.2 - 23.32155)(1)/(1)(12) = +2.3124E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{2774.9}{.1797g} = 1.5442^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1307 DUP Date: 06/03/96 Time: 15:00:54

Sample Size = 1 uL .1572g
Dil Factor = 1
Blank ID # =
Blank Value = .37 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.30	0.00
2	1.00	67.50	95.11
3	1.50	337.00	79.97
4	2.00	649.10	48.08
5	2.50	852.80	23.89
6	3.00	984.90	13.41
7	3.50	1075.80	8.45
8	4.00	1137.70	5.44
9	4.50	1177.70	3.40
10	5.00	1202.40	2.05
11	5.50	1218.00	1.28
12	6.00	1229.00	0.90
13	6.50	1237.70	0.70
14	7.00	1245.50	0.63
15	7.50	1252.20	0.54
16	8.00	1258.20	0.48
17	8.50	1263.90	0.45
18	9.00	1268.80	0.39
19	9.50	1273.60	0.38
20	10.00	1277.80	0.33
21	10.50	1282.00	0.33
22	11.00	1286.60	0.36

USER INPUT BLANK VALUE
BLANK VALUE = 4.070158 micrograms carbon
BLANK FACTOR = 4.070158 / 11.00043 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:
(1286.6 - 4.06921)(1)/(1) = +1.2825E+03 g/L Carbon
(1286.6 - 4.06921)(1)/(1)(12) = +1.0688E+02 Molar Carbon

Sample Run By: Jackie Steele 6/3/96
JL STEELE 00000

$\frac{1282.5}{.1572g} = 8.4523$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1307 DUP Date: 06/03/96 Time: 15:13:27

Sample Size = 1 uL .1572g
Dil Factor = 1
Blank ID # =
Blank Value = 2.12 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	4.80	0.00
2	1.01	14.70	67.35
3	1.51	120.70	87.82
4	2.01	391.00	69.13
5	2.51	780.60	49.91
6	3.00	1252.00	37.65
7	3.50	1625.50	22.98
8	4.00	1857.60	12.49
9	4.50	2000.30	7.13
10	5.00	2097.50	4.63
11	5.50	2166.00	3.16
12	6.00	2214.40	2.19
13	6.50	2248.60	1.52
14	7.00	2272.50	1.05
15	7.50	2289.70	0.75
16	8.00	2302.90	0.57
17	8.50	2313.60	0.46
18	9.00	2322.60	0.39
19	9.50	2330.40	0.33
20	10.00	2336.80	0.27
21	10.50	2342.40	0.24
22	11.00	2347.40	0.21

USER INPUT BLANK VALUE
BLANK VALUE = 23.3209 micrograms carbon
BLANK FACTOR = 23.3209 / 11.00043 = +2.1E+00 ug/min Carbon

SAMPLE RESULTS:
(2347.4 - 23.31961)(1)/(1) = +2.3241E+03 g/L Carbon
(2347.4 - 23.31961)(1)/(1)(12) = +1.9367E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 6/3/96
JL STEELE .00000

$\frac{2324.1}{.1572g} = 1.537 E4$

05/31/96 16:43
A-0004-1

LABCORE Data Entry Template for Worklist# 7241

Analyst: SLH **Instrument:** CARB2 _____ **Book#** TIC 22N12-B
TOC 24N12-A

Method: LA-342-100 **Rev/Mod** D-0

Worklist Comment: U-105 TICTOC. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	SOLID		
2	STD				@TICTOC1	SOLID		
3	SAMPLE	S96T001452	0		@TICTOC1	SOLID	96000143	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
4	DUP	S96T001452	0		@TICTOC1	SOLID		
5	SPK	S96T001452	0		@TICTOC1	SOLID		
6	SAMPLE	S96T001451	0		@TICTOC1	SOLID	96000143	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
7	DUP	S96T001451	0		@TICTOC1	SOLID		
8	SAMPLE	S96T001453	0		@TICTOC1	SOLID	96000143	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
9	DUP	S96T001453	0		@TICTOC1	SOLID		
10	SAMPLE	S96T001454	0		@TICTOC1	SOLID	96000143	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
11	DUP	S96T001454	0		@TICTOC1	SOLID		

Final page for worklist # 7241

Sandra L Hood Boatright
Analyst Signature **Date** ~~6-6-96~~ 6/10/96 6-9-96

Analyst Signature **Date** 6-10-96

Data Entry Comments:

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

LABCORE Completed Worklist Report for Worklist# 7241

Analyst: slh **Instrument:** CARB2 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: U-105 TICTOC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK			0	@TICTOC1 TIC-02	SOLID	1	5.00E-1	0.500	ug/g
1	BLNK			0	@TICTOC1 TOC-02	SOLID	1	5.80E+0	5.800	ug/g
2	STD			0	@TICTOC1 TIC-02	SOLID	6.02E+02	6.02E+2	100.000	% Recovery
2	STD			0	@TICTOC1 TOC-02	SOLID	3.00E+03	2.88E+3	96.000	% Recovery
3	SAMPLE	S96T001452		0	@TICTOC1 TIC-02	SOLID	N/A	2.45E+03	5.000	ug/g
3	SAMPLE	S96T001452		0	@TICTOC1 TOC-02	SOLID	N/A	1.27E+04	40.000	ug/g
4	DUP	S96T001452		0	@TICTOC1 TIC-02	SOLID	2.45E+3	2.51E+3	2.419	RPD
4	DUP	S96T001452		0	@TICTOC1 TOC-02	SOLID	1.27E+4	1.26E+4	0.791	RPD
5	SPK	S96T001452		0	@TICTOC1 TIC-02	SOLID	1.00E+02	1.09E+02	109.000	% Recovery
5	SPK	S96T001452		0	@TICTOC1 TOC-02	SOLID	1.00E+02	1.15E+02	115.000	% Recovery
6	SAMPLE	S96T001451		0	@TICTOC1 TIC-02	SOLID	N/A	8.63E+03	5.000	ug/g
6	SAMPLE	S96T001451		0	@TICTOC1 TOC-02	SOLID	N/A	1.03E+04	40.000	ug/g
7	DUP	S96T001451		0	@TICTOC1 TIC-02	SOLID	8.63E+3	9.27E+3	7.151	RPD
7	DUP	S96T001451		0	@TICTOC1 TOC-02	SOLID	1.03E+4	1.02E+4	0.976	RPD
8	SAMPLE	S96T001453		0	@TICTOC1 TIC-02	SOLID	N/A	2.02E+03	5.000	ug/g
8	SAMPLE	S96T001453		0	@TICTOC1 TOC-02	SOLID	N/A	8.48E+03	40.000	ug/g
9	DUP	S96T001453		0	@TICTOC1 TIC-02	SOLID	2.02E+3	2.00E+3	0.995	RPD
9	DUP	S96T001453		0	@TICTOC1 TOC-02	SOLID	8.48E+3	9.47E+3	11.031	RPD
10	SAMPLE	S96T001454		0	@TICTOC1 TIC-02	SOLID	N/A	3.00E+03	5.000	ug/g
10	SAMPLE	S96T001454		0	@TICTOC1 TOC-02	SOLID	N/A	1.45E+04	40.000	ug/g
11	DUP	S96T001454		0	@TICTOC1 TIC-02	SOLID	3.00E+3	3.04E+3	1.325	RPD
11	DUP	S96T001454		0	@TICTOC1 TOC-02	SOLID	1.45E+4	1.37E+4	5.674	RPD

Final page for worklist# 7241

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

Robert W Schroeder 6/11/96
Reviewer Signature **Date**

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

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 06/09/96 Time: 10:25:15

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	1.01	77.20	98.32
3	1.51	238.80	67.67
4	2.00	393.00	39.24
5	2.50	493.60	20.38
6	3.00	553.50	10.82
7	3.50	585.70	5.50
8	4.00	599.00	2.22
9	4.50	604.00	0.83
10	5.00	606.30	0.38
11	5.50	607.20	0.15
12	6.00	607.80	0.10
13	6.50	608.10	0.05
14	7.00	608.60	0.08
15	7.50	608.80	0.03
16	8.00	609.10	0.05
17	8.50	609.40	0.05
18	9.00	609.60	0.03
19	9.50	609.80	0.03
20	10.00	610.00	0.03
21	10.50	610.30	0.05
22	11.00	610.50	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(610.5 - 9.240563)(1)/(1000) = +6.013E-01 g/L Carbon
(610.5 - 9.240563)(1)/(1000)(12) = +5.010E-02 Molar Carbon

Sample Run By: SL Hood Boatright 6/9/96
SL HOOD 00000

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1489 TO 1523.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 06/09/96 Time: 07:51:32

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	0.60	66.67
3	1.51	1.20	50.00
4	2.01	1.70	29.41
5	2.51	2.20	22.73
6	3.01	2.70	18.52
7	3.51	3.10	12.90
8	4.00	3.50	11.43
9	4.50	4.00	12.50
10	5.00	4.40	9.09
11	5.50	4.70	6.38
12	6.00	5.10	7.84
13	6.50	5.50	7.27
14	7.00	5.90	6.78
15	7.50	6.40	7.81
16	8.00	6.70	4.48
17	8.50	7.10	5.63
18	9.00	7.60	6.58
19	9.50	8.00	5.00
20	10.00	8.40	4.76
21	10.50	8.80	4.55
22	11.00	9.20	4.35

BLANK VALUE = 9.2 micrograms carbon
BLANK FACTOR = 9.2 / 10.99966 = +8.4E-01 ug/min Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 06/09/96 Time: 10:56:07

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.70	0.00
2	1.01	2.60	73.08
3	1.50	4.10	36.59
4	2.00	4.80	14.58
5	2.50	5.30	9.43
6	3.00	5.50	3.64
7	3.50	5.80	5.17
8	4.00	6.00	3.33
9	4.50	6.20	3.23
10	5.00	6.40	3.13
11	5.50	6.60	3.03
12	6.00	6.80	2.94
13	6.50	7.00	2.86
14	7.00	7.20	2.78
15	7.50	7.40	2.70
16	8.00	7.60	2.63
17	8.50	7.80	2.56
18	9.00	7.90	1.27
19	9.50	8.20	3.66
20	10.00	8.30	1.20
21	10.50	8.50	2.35
22	11.00	8.70	2.30

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(8.7 - 9.239025)(1)/(1) = < 5.00 E-3 g/L Carbon
(8.7 - 9.239025)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001452 Date: 06/09/96 Time: 11:33:34

Sample Size = 1 uL .1097g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	3.20	93.75
3	1.50	35.20	90.91
4	2.00	101.60	65.35
5	2.50	165.10	38.46
6	3.00	213.30	22.60
7	3.50	240.90	11.46
8	4.00	256.10	5.94
9	4.50	263.70	2.88
10	5.00	267.30	1.35
11	5.50	269.40	0.78
12	6.00	270.80	0.52
13	6.50	271.90	0.40
14	7.00	272.80	0.33
15	7.50	273.50	0.26
16	8.00	274.20	0.26
17	8.50	274.80	0.22
18	9.00	275.40	0.22
19	9.50	276.00	0.22
20	10.00	276.50	0.18
21	10.50	277.10	0.22
22	11.00	277.50	0.14

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(277.5 - 9.238975)(1)/(1) = +2.683E+02 g/L Carbon
(277.5 - 9.238975)(1)/(1)(12) = +2.236E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001452 DU Date: 06/09/96 Time: 13:35:58

Sample Size = 1 uL .1468g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	3.70	94.59
3	1.51	46.50	92.04
4	2.00	126.20	63.15
5	2.50	204.90	38.41
6	3.00	266.60	23.14
7	3.50	309.70	13.92
8	4.00	336.50	7.96
9	4.50	350.90	4.10
10	5.00	358.80	2.20
11	5.50	363.20	1.21
12	6.00	366.10	0.79
13	6.50	368.10	0.54
14	7.00	369.70	0.43
15	7.50	370.90	0.32
16	8.00	372.30	0.38
17	8.50	373.30	0.27
18	9.00	374.50	0.32
19	9.50	375.30	0.21
20	10.00	376.30	0.27
21	10.50	377.00	0.19
22	11.00	377.90	0.24

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(377.9 - 9.24123)(1)/(1) = +3.687E+02 g/L Carbon
(377.9 - 9.24123)(1)/(1)(12) = +3.072E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001452 SP Date: 06/09/96 Time: 14:05:49

Sample Size = 1 uL .1132g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	10.90	90.83
3	1.51	101.90	89.30
4	2.00	264.90	61.53
5	2.50	409.60	35.33
6	3.00	506.70	19.16
7	3.50	565.80	10.45
8	4.00	602.00	6.01
9	4.50	620.40	2.97
10	5.00	628.50	1.29
11	5.50	632.70	0.66
12	6.00	635.10	0.38
13	6.50	637.20	0.33
14	7.00	638.80	0.25
15	7.50	640.40	0.25
16	8.00	641.70	0.20
17	8.50	643.00	0.20
18	9.00	644.20	0.19
19	9.50	645.30	0.17
20	10.00	646.50	0.19
21	10.50	647.30	0.12
22	11.00	648.20	0.14

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(648.2 - 9.239025)(1)/(1) = +6.390E+02 g/L Carbon
(648.2 - 9.239025)(1)/(1)(12) = +5.325E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001451 Date: 06/09/96 Time: 14:33:29

Sample Size = 1 uL .1601g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	12.30	86.18
3	1.51	165.20	92.55
4	2.00	524.20	68.49
5	2.50	872.50	39.92
6	3.00	1085.90	19.65
7	3.50	1206.10	9.97
8	4.00	1279.80	5.76
9	4.50	1324.80	3.40
10	5.00	1349.30	1.82
11	5.50	1360.50	0.82
12	6.00	1366.80	0.46
13	6.50	1371.00	0.31
14	7.00	1374.20	0.23
15	7.50	1376.90	0.20
16	8.00	1379.30	0.17
17	8.50	1381.30	0.14
18	9.00	1383.40	0.15
19	9.50	1385.10	0.12
20	10.00	1386.80	0.12
21	10.50	1388.20	0.10
22	11.00	1389.80	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(1389.8 - 9.238308)(1)/(1) = +1.3806E+03 g/L Carbon
(1389.8 - 9.238308)(1)/(1)(12) = +1.1505E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001451 DU Date: 06/09/96 Time: 15:01:41

Sample Size = 1 uL .1488g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	17.80	0.00
2	1.01	50.20	64.54
3	1.51	382.80	86.89
4	2.00	800.80	52.20
5	2.50	1061.50	24.56
6	3.00	1200.50	11.58
7	3.50	1276.60	5.96
8	4.00	1321.90	3.43
9	4.50	1345.90	1.78
10	5.00	1356.10	0.75
11	5.50	1362.00	0.43
12	6.00	1366.30	0.31
13	6.50	1370.00	0.27
14	7.00	1372.90	0.21
15	7.50	1375.50	0.19
16	8.00	1377.90	0.17
17	8.50	1380.20	0.17
18	9.00	1382.10	0.14
19	9.50	1384.00	0.14
20	10.00	1385.60	0.12
21	10.50	1387.10	0.11
22	11.00	1388.70	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(1388.7 - 9.239743)(1)/(1) = +1.3795E+03 g/L Carbon
(1388.7 - 9.239743)(1)/(1)(12) = +1.1496E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001453 Date: 06/09/96 Time: 15:26:55

Sample Size = 1 uL .1470g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	4.10	78.05
3	1.51	34.30	88.05
4	2.00	93.00	63.12
5	2.50	156.40	40.54
6	3.00	207.60	24.66
7	3.50	244.50	15.09
8	4.00	266.40	8.22
9	4.50	277.00	3.83
10	5.00	282.30	1.88
11	5.50	285.80	1.22
12	6.00	288.70	1.00
13	6.50	290.90	0.76
14	7.00	293.20	0.78
15	7.50	295.10	0.64
16	8.00	296.90	0.61
17	8.50	298.70	0.60
18	9.00	300.30	0.53
19	9.50	301.80	0.50
20	10.00	303.30	0.49
21	10.50	304.70	0.46
22	11.00	305.90	0.39

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(305.9 - 9.24123)(1)/(1) = +2.967E+02 g/L Carbon
(305.9 - 9.24123)(1)/(1)(12) = +2.472E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01453 DUP Date: 06/09/96 Time: 16:23:30

Sample Size = 1 uL .1488g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	3.10	90.32
3	1.51	25.50	87.84
4	2.00	67.70	62.33
5	2.50	124.20	45.49
6	3.00	181.10	31.42
7	3.50	226.00	19.87
8	4.00	256.90	12.03
9	4.50	274.60	6.45
10	5.00	282.40	2.76
11	5.50	286.60	1.47
12	6.00	289.40	0.97
13	6.50	291.70	0.79
14	7.00	293.70	0.68
15	7.50	295.60	0.64
16	8.00	297.20	0.54
17	8.50	298.90	0.57
18	9.00	300.30	0.47
19	9.50	301.60	0.43
20	10.00	303.10	0.49
21	10.50	304.30	0.39
22	11.00	305.60	0.43

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(305.6 - 9.240563)(1)/(1) = +2.964E+02 g/L Carbon
(305.6 - 9.240563)(1)/(1)(12) = +2.470E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001454 Date: 06/09/96 Time: 16:47:49

Sample Size = 1 uL .1296g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.20	0.00
2	1.01	3.80	68.42
3	1.50	22.30	82.96
4	2.00	63.40	64.83
5	2.50	119.70	47.03
6	3.00	184.50	35.12
7	3.50	245.60	24.88
8	4.00	290.90	15.57
9	4.50	321.50	9.52
10	5.00	340.10	5.47
11	5.50	349.40	2.66
12	6.00	355.50	1.72
13	6.50	361.00	1.52
14	7.00	366.10	1.39
15	7.50	370.80	1.27
16	8.00	375.30	1.20
17	8.50	379.40	1.08
18	9.00	383.30	1.02
19	9.50	387.00	0.96
20	10.00	390.60	0.92
21	10.50	393.90	0.84
22	11.00	396.90	0.76

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(396.9 - 9.239897)(1)/(1) = +3.877E+02 g/L Carbon
(396.9 - 9.239897)(1)/(1)(12) = +3.231E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001454 DU Date: 06/09/96 Time: 17:15:17

Sample Size = 1 uL .1295g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	3.10	64.52
3	1.51	17.00	81.76
4	2.00	52.40	67.56
5	2.50	105.40	50.28
6	3.00	175.30	39.87
7	3.50	242.00	27.56
8	4.00	291.00	16.84
9	4.50	324.20	10.24
10	5.00	344.00	5.76
11	5.50	354.00	2.82
12	6.00	360.50	1.80
13	6.50	365.70	1.42
14	7.00	370.90	1.40
15	7.50	375.50	1.23
16	8.00	380.00	1.18
17	8.50	384.20	1.09
18	9.00	388.50	1.11
19	9.50	392.30	0.97
20	10.00	396.00	0.93
21	10.50	399.70	0.93
22	11.00	403.00	0.82

USER INPUT BLANK VALUE
BLANK VALUE = 9.239846 micrograms carbon
BLANK FACTOR = 9.239846 / 10.99982 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(403 - 9.239077)(1)/(1) = +3.938E+02 g/L Carbon
(403 - 9.239077)(1)/(1)(12) = +3.281E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 06/09/96 Time: 10:06:21

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	0.40	0.00
2	1.01	2.50	84.00
3	1.50	9.20	72.83
4	2.00	15.00	38.67
5	2.50	17.80	15.73
6	3.00	19.60	9.18
7	3.50	20.90	6.22
8	4.00	22.00	5.00
9	4.50	22.90	3.93
10	5.00	23.80	3.78
11	5.50	24.40	2.46
12	6.00	25.10	2.79
13	6.50	25.80	2.71
14	7.00	26.50	2.64
15	7.50	27.00	1.85
16	8.00	27.60	2.17
17	8.50	28.20	2.13
18	9.00	28.60	1.40
19	9.50	29.20	2.05
20	10.00	29.70	1.68
21	10.50	30.10	1.33
22	11.00	30.70	1.95

BLANK VALUE = 30.7 micrograms carbon
BLANK FACTOR = 30.7 / 10.99982 = +2.79E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 06/09/96 Time: 10:43:42

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 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	1.00	7.20	97.22
3	1.50	82.80	91.30
4	2.00	268.30	69.14
5	2.50	446.70	39.94
6	3.00	537.80	16.94
7	3.50	583.10	7.77
8	4.00	600.20	2.85
9	4.50	605.90	0.94
10	5.00	608.00	0.35
11	5.50	609.30	0.21
12	6.00	610.00	0.11
13	6.50	610.60	0.10
14	7.00	610.80	0.03
15	7.50	611.10	0.05
16	8.00	611.20	0.02
17	8.50	611.40	0.03
18	9.00	611.50	0.02
19	9.50	611.60	0.02
20	10.00	611.60	0.00
21	10.50	611.80	0.03
22	11.00	611.80	0.00

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(611.8 - 30.69409)(1)/(200) = +2.906E+00 g/L Carbon
(611.8 - 30.69409)(1)/(200)(12) = +2.421E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: SL Hood Bradford
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 06/09/96 Time: 11:10:56

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 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	1.60	87.50
3	1.50	8.60	81.40
4	2.00	17.10	49.71
5	2.50	22.80	25.00
6	3.00	25.70	11.28
7	3.50	27.10	5.17
8	4.00	27.90	2.87
9	4.50	28.50	2.11
10	5.00	29.00	1.72
11	5.50	29.40	1.36
12	6.00	29.70	1.01
13	6.50	30.20	1.66
14	7.00	30.40	0.66
15	7.50	30.70	0.98
16	8.00	31.70	3.15
17	8.50	33.40	5.09
18	9.00	34.70	3.75
19	9.50	35.30	1.70
20	10.00	35.70	1.12
21	10.50	36.20	1.38
22	11.00	36.50	0.82

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(36.5 - 30.69409)(1)/(1) = +5.81E+00 g/L Carbon
(36.5 - 30.69409)(1)/(1)(12) = +4.84E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001452 Date: 06/09/96 Time: 11:59:42

Sample Size = 1 uL .1097g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 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	42.30	99.29
3	1.51	251.00	83.15
4	2.00	569.50	55.93
5	2.50	905.50	37.11
6	3.00	1122.60	19.34
7	3.50	1236.10	9.18
8	4.00	1300.30	4.94
9	4.50	1340.50	3.00
10	5.00	1363.30	1.67
11	5.50	1379.60	1.18
12	6.00	1391.40	0.85
13	6.50	1400.40	0.64
14	7.00	1407.40	0.50
15	7.50	1412.80	0.38
16	8.00	1417.00	0.30
17	8.50	1420.20	0.23
18	9.00	1423.00	0.20
19	9.50	1425.40	0.17
20	10.00	1427.40	0.14
21	10.50	1429.00	0.11
22	11.00	1430.50	0.10

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1430.5 - 30.69187)(1)/(1) = +1.3998E+03 g/L Carbon
(1430.5 - 30.69187)(1)/(1)(12) = +1.1665E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001452 DU Date: 06/09/96 Time: 13:49:04

Sample Size = 1 uL .1468g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 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	33.80	96.75
3	1.50	257.40	86.87
4	2.00	535.50	51.93
5	2.50	829.50	35.44
6	3.00	1161.20	28.57
7	3.50	1405.90	17.41
8	4.00	1556.60	9.68
9	4.50	1647.20	5.50
10	5.00	1707.10	3.51
11	5.50	1750.50	2.48
12	6.00	1781.80	1.76
13	6.50	1805.10	1.29
14	7.00	1823.20	0.99
15	7.50	1837.60	0.78
16	8.00	1849.50	0.64
17	8.50	1859.30	0.53
18	9.00	1867.30	0.43
19	9.50	1874.30	0.37
20	10.00	1880.20	0.31
21	10.50	1885.30	0.27
22	11.00	1890.00	0.25

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1890 - 30.68676)(1)/(1) = +1.8593E+03 g/L Carbon
(1890 - 30.68676)(1)/(1)(12) = +1.5494E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001452 SP Date: 06/09/96 Time: 14:20:17

Sample Size = 1 uL .1132g
Dil Factor = 1
Blank ID # =
Blank Value = 2.7 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	1.00	0.00
2	1.01	18.00	94.44
3	1.51	166.90	89.22
4	2.01	433.30	61.48
5	2.51	787.10	44.95
6	3.01	1217.50	35.35
7	3.51	1557.10	21.81
8	4.00	1737.50	10.38
9	4.50	1834.00	5.26
10	5.00	1895.10	3.22
11	5.50	1934.30	2.03
12	6.00	1959.60	1.29
13	6.50	1975.70	0.81
14	7.00	1987.10	0.57
15	7.50	1995.60	0.43
16	8.00	2002.50	0.34
17	8.50	2008.00	0.27
18	9.00	2012.50	0.22
19	9.50	2015.90	0.17
20	10.00	2019.10	0.16
21	10.50	2021.80	0.13
22	11.00	2024.10	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 29.69951 micrograms carbon
BLANK FACTOR = 29.69951 / 10.99982 = +2.7E+00 ug/min Carbon

SAMPLE RESULTS:
(2024.1 - 29.69951)(1)/(1) = +1.9944E+03 g/L Carbon
(2024.1 - 29.69951)(1)/(1)(12) = +1.6620E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001451 Date: 06/09/96 Time: 14:46:03

Sample Size = 1 uL .1601g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.80	0.00
2	1.01	82.10	97.81
3	1.51	367.30	77.65
4	2.00	739.00	50.30
5	2.50	1149.30	35.70
6	3.00	1376.90	16.53
7	3.50	1480.30	6.99
8	4.00	1546.00	4.25
9	4.50	1588.70	2.69
10	5.00	1615.70	1.67
11	5.50	1633.00	1.06
12	6.00	1644.50	0.70
13	6.50	1652.90	0.51
14	7.00	1659.30	0.39
15	7.50	1664.10	0.29
16	8.00	1668.00	0.23
17	8.50	1671.20	0.19
18	9.00	1673.80	0.16
19	9.50	1676.20	0.14
20	10.00	1678.20	0.12
21	10.50	1680.00	0.11
22	11.00	1681.40	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1681.4 - 30.68949)(1)/(1) = +1.6507E+03 g/L Carbon
(1681.4 - 30.68949)(1)/(1)(12) = +1.3756E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001451 DU Date: 06/09/96 Time: 15:14:53

Sample Size = 1 uL .1488g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	361.00	0.00
2	1.01	758.00	52.37
3	1.50	1109.60	31.69
4	2.00	1296.50	14.42
5	2.50	1386.90	6.52
6	3.00	1442.50	3.85
7	3.50	1476.80	2.32
8	4.00	1497.20	1.36
9	4.50	1509.40	0.81
10	5.00	1517.80	0.55
11	5.50	1523.80	0.39
12	6.00	1528.40	0.30
13	6.50	1532.10	0.24
14	7.00	1535.20	0.20
15	7.50	1537.80	0.17
16	8.00	1540.00	0.14
17	8.50	1541.70	0.11
18	9.00	1543.50	0.12
19	9.50	1544.90	0.09
20	10.00	1546.20	0.08
21	10.50	1547.40	0.08
22	11.00	1548.40	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1548.4 - 30.68932)(1)/(1) = +1.5177E+03 g/L Carbon
(1548.4 - 30.68932)(1)/(1)(12) = +1.2648E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001453 Date: 06/09/96 Time: 16:09:38

Sample Size = 1 uL .1470g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.30	0.00
2	1.01	178.40	98.71
3	1.51	466.20	61.73
4	2.00	764.60	39.03
5	2.50	969.70	21.15
6	3.00	1076.50	9.92
7	3.51	1143.00	5.82
8	4.01	1187.60	3.76
9	4.50	1216.80	2.40
10	5.00	1235.20	1.49
11	5.50	1246.70	0.92
12	6.00	1255.20	0.68
13	6.50	1261.40	0.49
14	7.00	1266.00	0.36
15	7.50	1269.80	0.30
16	8.00	1272.70	0.23
17	8.50	1275.20	0.20
18	9.00	1277.30	0.16
19	9.50	1278.80	0.12
20	10.00	1280.40	0.12
21	10.50	1281.70	0.10
22	11.00	1282.90	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1282.9 - 30.69477)(1)/(1) = +1.2522E+03 g/L Carbon
(1282.9 - 30.69477)(1)/(1)(12) = +1.0435E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001453 DU Date: 06/09/96 Time: 16:35:37

Sample Size = 1 uL .1488g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.50	0.00
2	1.01	187.30	98.67
3	1.50	513.70	63.54
4	2.00	859.10	40.20
5	2.50	1107.30	22.41
6	3.00	1232.80	10.18
7	3.50	1303.20	5.40
8	4.00	1349.80	3.45
9	4.50	1380.70	2.24
10	5.00	1399.40	1.34
11	5.50	1411.00	0.82
12	6.00	1419.00	0.56
13	6.50	1425.00	0.42
14	7.00	1429.80	0.34
15	7.50	1433.30	0.24
16	8.00	1436.10	0.19
17	8.50	1438.60	0.17
18	9.00	1440.60	0.14
19	9.50	1442.40	0.12
20	10.00	1443.90	0.10
21	10.50	1445.00	0.08
22	11.00	1446.20	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1446.2 - 30.68404)(1)/(1) = +1.4155E+03 g/L Carbon
(1446.2 - 30.68404)(1)/(1)(12) = +1.1796E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001454 Date: 06/09/96 Time: 17:02:49

Sample Size = 1 uL .1296g
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	34.50	0.00
2	1.01	432.50	92.02
3	1.51	757.90	42.93
4	2.01	1120.70	32.37
5	2.50	1495.20	25.05
6	3.00	1661.10	9.99
7	3.50	1741.90	4.64
8	4.00	1796.00	3.01
9	4.50	1832.80	2.01
10	5.00	1856.10	1.26
11	5.50	1870.00	0.74
12	6.00	1879.50	0.51
13	6.50	1886.30	0.36
14	7.00	1891.60	0.28
15	7.50	1895.80	0.22
16	8.00	1899.00	0.17
17	8.50	1901.60	0.14
18	9.00	1903.90	0.12
19	9.50	1906.00	0.11
20	10.00	1907.50	0.08
21	10.50	1908.90	0.07
22	11.00	1910.20	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1910.2 - 30.6917)(1)/(1) = +1.8795E+03 g/L Carbon
(1910.2 - 30.6917)(1)/(1)(12) = +1.5663E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001454 DU Date: 06/10/96 Time: 02:28:12

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.79 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	5.70	0.00
2	1.01	248.90	97.71
3	1.50	593.70	58.08
4	2.00	1031.30	42.43
5	2.50	1419.60	27.35
6	3.00	1574.40	9.83
7	3.50	1650.60	4.62
8	4.00	1702.90	3.07
9	4.50	1737.70	2.00
10	5.00	1759.10	1.22
11	5.50	1771.70	0.71
12	6.00	1780.20	0.48
13	6.50	1786.70	0.36
14	7.00	1791.40	0.26
15	7.50	1795.20	0.21
16	8.00	1798.50	0.18
17	8.50	1801.10	0.14
18	9.00	1803.10	0.11
19	9.50	1805.10	0.11
20	10.00	1806.90	0.10
21	10.50	1808.30	0.08
22	11.00	1809.70	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 30.68949 micrograms carbon
BLANK FACTOR = 30.68949 / 10.99982 = +2.8E+00 ug/min Carbon

SAMPLE RESULTS:
(1809.7 - 30.68693)(1)/(1) = +1.7790E+03 g/L Carbon
(1809.7 - 30.68693)(1)/(1)(12) = +1.4825E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

.1295g

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.0000	0.0000
BLNK	Dilution Factor	(DF)	1	1
Work	µg of Carbon in Sample	(C1)	9.2	30.7
7241	µg of Carbon from Baseline	(C2)	8.7	36.5

Test Code: @TICTOC1

Matrix: SOLID

Batch Number: 96002917

Rerun: 0

µg of Carbon = |C1-C2|

Sample Prep: N/A

Sample: BLNK

Instrument Code: CARB2

Prepared By: RCJ

Chemist: RWS

Analyst: SLH

Date Completed: 06/10/96

Analysis Date: 06/09/96

Analysis Time: 05:30 PM

Sample Point: U-105

	TIC	TOC
Method Detection Limit in ug/g	5	40
µg of Carbon	5.00E-01	5.80E+00

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schneider	Date:	6/11/96

BLANK.WB1 REV 1.0 342100ML

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	1.0000	0.2000
STD	Dilution Factor	(DF)	1	1
Worklist	Final Coulometer Reading in µg	(C1)	610.5	611.8
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code	Standard Book Number		22N12B	24N12A
@TICTOC1	Standard Value (µg/ml)		602	3000

Matrix: LIQUID

Batch Number: 96002917

Reruns: 0

Sample Prep: N/A

Sample Type: STD

Instrument Code: CARB2

Prepared By: RCJ

Chemist: RWS

Analyst: SLH

Date Completed: 06/10/96

Analysis Date: 06/09/96

Analysis Time: 05:30 PM

Sample Point: U-105

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	3.00E+03
QC Found in µg/mL	6.02E+02	2.88E+03
Percent Standard Recovery	100.0	95.9

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	Rus Schroeder	Date:	6/11/96

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1097	0.1097
SAMPLE	Dilution Factor	(DF)	1	1
Work Center	µg of Carbon in Sample	(C1)	277.5	1430.5
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code				
@TICTOC1				

Matrix
SOLID

Batch Number
96002917

Rerun
0

Sample Prep
N/A

Sample
S96T001452

Instrument Code
CARB2

Prepared By
RCJ

Chemist
RWS

Analyst
SLH

Date Completed
06/10/96

Analysis Date
06/09/96

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
Analysis Time	Method Detection Limit in ug/g	5	40
05:30 PM			
Sample Point	µg of Carbon/g	2.45E+03	1.27E+04
U-105			

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

151.5

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1468	0.1468
DUP	Dilution Factor	(DF)	1	1
Worklist	µg of Carbon in Sample	(C1)	377.9	1890
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code	Known µg of C from Original Sample		2.45E+3	1.27E+4
@TICTOC1				

Matrix: SOLID

Batch Number: 96002917

Rerun: 0

Sample Prep: N/A

Sample #: S96T001452

Instrument Code: CARB2

Prepared By: RCJ

Chemist: RWS

Analyst: SLH

Date Complete: 06/10/96

Analysis Date: 06/09/96

Analysis Time: 05:30 PM

Sample Point: U-105

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	2.51E+03	1.26E+04
RPD (of Sam and Dup Results)	~~2.6%~~ 2.4 RWS 6/11/96	0.6% 0.8 RWS 6/11/96

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (C-0) SOLIDS

Type	Sample Vial Data		TIC	TOC
SPK	Sample Size in g	(SS)	0.1468	0.1468
Work List	Final Coulometer Reading in µg	(C1)	377.9	1890
7241	**Spiked Vial Data**			
Test Code	Sample Size in g	(SPK SS)	0.1132	0.1132
@TICTOC1	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg	(C3)	648.2	2024.1
SOLID	Spike Book Number		22N12B	24N12A
Batch Number	Spike Standard Value in µg/ml		602	3000
96002917	Spike Concentration in µg	(SPK CONC)	301	300

Rerun	0
Sample Prepar	N/A
Sample	S96T001452
Instrument Code	CARB2
Prepared By	RCJ
Chemist	RWS
Analyst	SLH
Date Complete	06/10/96
Analysis Date	06/09/96
Analysis Time	05:30 PM
Sample Point	U-105

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	3.00E+03
QC Found in µg/mL	6.59E+02	3.46E+03
Percent Spike Recovery	109.4	115.2

RW Schroeder RW Schroeder 6/11/96

WORKBOOK PAGE: SAM6

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1601	0.1601
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1389.8	1681.4
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96002917
Rerun Flag	0
Sample Prep	N/A
Sample No.	S96T001451
Instrument Code	CARB2
Prepared By	RCJ
Chemist	RWS
Analyst	SLH
Date Complete	06/10/96
Analysis Date	06/09/96
Analysis Time	05:30 PM
Sample Point	U-105

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	8.63E+03	1.03E+04

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP7

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1488	0.1488
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1388.7	1548.4
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code	Known µg of C from Original Sample		8.63E+3	1.03E+4
@TICTOC1				

Matrix: SOLID

Batch Number: 96002917

Rerun: 0

Sample Prep: N/A

Sample: S96T001451

Instrument Code: CARB2

Prepared By: RCJ

Chemist: RWS

Analyst: SLH

Date Completed: 06/10/96

Analysis Date: 06/09/96

Analysis Time: 05:30 PM

Sample Point: U-105

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	9.27E+03	1.02E+04
RPD (of Sam and Dup Results)	7.2%	~~1.4%~~ 0.98

RWS 6/11/96

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schneider	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM8

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1470	0.1470
SAMPLE	Dilution Factor	(DF)	1	1
Worklist	µg of Carbon in Sample	(C1)	305.9	1282.9
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96002918
Rerun	0
Sample Prep	N/A
Sample	S96T001453
Instrument Code	CARB2
Prepared By	RCJ
Chemist	RWS
Analyst	SLH
Date Complete	06/10/96
Analysis Date	06/09/96
Analysis Time	05:30 PM
Sample Point	U-105

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	2.02E+03	8.48E+03

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP9

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1488	0.1488
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	305.6	1446.2
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code	Known µg of C from Original Sample		2.02E+3	8.48E+3
@TICTOC1				

Matrix: SOLID

Batch Number: 96002918

Results: 0

Sample Prep: N/A

Sample Matrix: S96T001453

Instrument Code: CARB2

Prepared By: RCJ

Chemist: RWS

Analyst: SLH

Date Completed: 06/10/96

Analysis Date: 06/09/96

Analysis Time: 05:30 PM

Sample Point: U-105

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	2.00E+03	9.47E+03
RPD (of Sam and Dup Results)	~~1.2%~~ 0.99 RWS 6/11/96	~~11.1%~~ 11.0 RWS 6/11/96

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	Rui Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM10

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1296	0.1296
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	396.9	1910.2
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code				
@TICTOC1				

Matrix
SOLID

Batch Number
96002918

Rerun
0

Sample Prep
N/A

Sample #
S96T001454

Instrument Code
CARB2

Prepared By
RCJ

Chemist
RWS

Analyst
SLH

Date Complete
06/10/96

Analysis Date
06/09/96

Analysis Time
05:30 PM

Sample Point
U-105

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
ug of Carbon/g	3.00E+03	1.45E+04

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	Rw Johnson	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP11

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1295	0.1295
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	403	1809.7
7241	µg of Carbon from Baseline	(C2)	8.7	36.5
Test Code	Known µg of C from Original Sample		3.00E+3	1.45E+4
@TICTOC1				

Matrix
SOLID

Batch Number
96002918

Rerun
0

Sample Prep
N/A

Sample
S96T001454

Instrument Code
CARB2

Prepared By
RCJ

Chemist
RWS

Analyst
SLH

Date Completed
06/10/96

Analysis Date
06/09/96

Analysis Time
05:30 PM

Sample Point
U-105

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	3.04E+03	1.37E+04
RPD (of Sam and Dup Results)	~~1.5%~~ 1.3	5.7%

RWS 6/11/96

Data Entered By:	RCJ	Date:	06/10/96
Signature of Chemist:	RW Schroeder	Date:	6/11/96

SAMPLE.WB1 REV 1.0 342100ML

worklistrpt Version 2.1 05/15/95
05/10/96 11:43

LABCORE Data Entry Template for Worklist# 7832

Analyst: JLS2 **Instrument:** CARB2 **Book #** 22N12A TIC 16N12E TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: U-105 TICTOC. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	.7	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	3.30	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02E2	5.96E2	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00E3	2.73E3	N/A	ug/g
96000323	U-105 (R)	3	SAMPLE	S96T001633	0		@TICTOC1 TIC-02	SOLID	N/A	9.68E3		ug/g
96000323	U-105 (R)	3	SAMPLE	S96T001633	0		@TICTOC1 TOC-02	SOLID	N/A	1.35E4		ug/g
96000323	U-105 (R)	4	DUP	S96T001633	0		@TICTOC1 TIC-02	SOLID	9.68E3	9.27E3	N/A	ug/g
96000323	U-105 (R)	4	DUP	S96T001633	0		@TICTOC1 TOC-02	SOLID	1.35E4	1.30E4	N/A	ug/g
96000323	U-105 (R)	5	SPK	S96T001633	0		@TICTOC1 TIC-02	SOLID	100	102	N/A	ug/g
96000323	U-105 (R)	5	SPK	S96T001633	0		@TICTOC1 TOC-02	SOLID	100	96	N/A	ug/g
96000092	U-105 (R)	6	SAMPLE	S96T001018	0		@TICTOC1 TIC-02	LIQUID	N/A	5.80e1	5.00	ug/mL
96000092	U-105 (R)	6	SAMPLE	S96T001018	0		@TICTOC1 TOC-02	LIQUID	N/A	<40	40	ug/mL
96000092	U-105 (R)	7	DUP	S96T001018	0		@TICTOC1 TIC-02	LIQUID	5.80e1	5.90e1	N/A	ug/mL
96000092	U-105 (R)	7	DUP	S96T001018	0		@TICTOC1 TOC-02	LIQUID	<40	<40	N/A	ug/mL

Final page for worklist # 7832

Jacque Stelle 5/10/96
Analyst Signature Date

RE Wright 5/15/96
Analyst Signature Date

Approved RW Schroeder 5/16/96

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.

WHC-SD-WM-DP-182, REV. 1

LABCORE Completed Worklist Report for Worklist# 7832

Analyst: jls2 **Instrument:** CARB2 **Book#** _____

Method: LA 342-100 **Rev/Mod** D-0

Worklist Comment: U-105 TICTOC. RCJ

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK		0		@TICTOC1 TIC-02	SOLID	1	0.7	0.700	ug/g
1	BLNK		0		@TICTOC1 TOC-02	SOLID	1	3.30	3.300	ug/g
2	STD		0		@TICTOC1 TIC-02	SOLID	6.02e02	5.96e2	99.003	% Recovery
2	STD		0		@TICTOC1 TOC-02	SOLID	2.999e3	2.73e3	91.030	% Recovery
3	SAMPLE	S96T001633	0		@TICTOC1 TIC-02	SOLID	N/A	9.68e3	5.000	ug/g
3	SAMPLE	S96T001633	0		@TICTOC1 TOC-02	SOLID	N/A	1.35e4	40.000	ug/g
4	DUP	S96T001633	0		@TICTOC1 TIC-02	SOLID	9.68e3	9.27e3	4.327	RPD
4	DUP	S96T001633	0		@TICTOC1 TOC-02	SOLID	1.35e4	1.30e4	3.774	RPD
5	SPK	S96T001633	0		@TICTOC1 TIC-02	SOLID	100	102	102.000	% Recovery
5	SPK	S96T001633	0		@TICTOC1 TOC-02	SOLID	100	96	96.000	% Recovery
6	SAMPLE	S96T001018	0		@TICTOC1 TIC-02	LIQUID	N/A	5.80e1	5.000	ug/mL
6	SAMPLE	S96T001018	0		@TICTOC1 TOC-02	LIQUID	N/A <	40	40.000	ug/mL
7	DUP	S96T001018	0		@TICTOC1 TIC-02	LIQUID	5.80e1	5.90e1	1.709	RPD
7	DUP	S96T001018	0		@TICTOC1 TOC-02	LIQUID	<40	<40		RPD
8	BLNK		0		@TICTOC1 TIC-02	LIQUID	1	0.7*	0.700	ug/mL
8	BLNK		0		@TICTOC1 TOC-02	LIQUID	1	3.30*	3.300	ug/mL
9	STD		0		@TICTOC1 TIC-02	LIQUID	6.02e02	5.96e2*	99.003	% Recovery
9	STD		0		@TICTOC1 TOC-02	LIQUID	2.999e3	2.73e3*	91.030	% Recovery

Final page for worklist# 7832

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

Robert W Schroeder 7/25/96
Reviewer Signature **Date**

worklist and batch edited by Gail Svancara to associate blank and standard to second batch. worklist was then re-validated.
RWS 7/25/96

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

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 05/10/96 Time: 09:52:25

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	0.90	77.78
3	1.51	1.30	30.77
4	2.00	1.60	18.75
5	2.50	2.00	20.00
6	3.00	2.20	9.09
7	3.50	2.40	8.33
8	4.00	2.60	7.69
9	4.50	2.80	7.14
10	5.00	3.00	6.67
11	5.50	3.20	6.25
12	6.00	3.40	5.88
13	6.50	3.60	5.56
14	7.00	3.70	2.70
15	7.50	3.90	5.13
16	8.00	4.10	4.88
17	8.50	4.30	4.65
18	9.00	4.40	2.27
19	9.50	4.70	6.38
20	10.00	4.80	2.08
21	10.50	5.00	4.00
22	11.00	5.30	5.66

BLANK VALUE = 5.3 micrograms carbon
BLANK FACTOR = 5.3 / 10.99976 = +4.8E-01 ug/min Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 05/10/96 Time: 10:04:43

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	0.30	0.00
2	1.01	1.40	78.57
3	1.51	8.30	83.13
4	2.01	15.50	46.45
5	2.51	18.90	17.99
6	3.01	20.70	8.70
7	3.50	21.30	2.82
8	4.00	22.00	3.18
9	4.50	22.20	0.90
10	5.00	22.70	2.20
11	5.50	23.20	2.16
12	6.00	23.70	2.11
13	6.50	24.10	1.66
14	7.00	24.40	1.23
15	7.50	24.80	1.61
16	8.00	25.10	1.20
17	8.50	25.30	0.79
18	9.00	25.70	1.56
19	9.50	25.80	0.39
20	10.00	26.10	1.15
21	10.50	26.40	1.14
22	11.00	26.60	0.75

BLANK VALUE = 26.6 micrograms carbon
BLANK FACTOR = 26.6 / 10.99988 = +2.42E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 05/10/96 Time: 10:17:44

Sample Size = 1 uL 1ml
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	27.40	99.64
3	1.51	180.30	84.80
4	2.00	347.60	48.13
5	2.50	468.70	25.84
6	3.00	538.40	12.95
7	3.50	573.30	6.09
8	4.00	588.80	2.63
9	4.50	594.10	0.89
10	5.00	596.20	0.35
11	5.50	597.30	0.18
12	6.00	598.00	0.12
13	6.50	598.30	0.05
14	7.00	598.60	0.05
15	7.50	599.00	0.07
16	8.00	599.30	0.05
17	8.50	599.60	0.05
18	9.00	599.80	0.03
19	9.50	600.10	0.05
20	10.00	600.30	0.03
21	10.50	600.50	0.03
22	11.00	600.80	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(600.8 - 5.279883)(1)/(1) = +5.955E+02 g/L Carbon
(600.8 - 5.279883)(1)/(1)(12) = +4.963E+01 Molar Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

$\frac{595.5}{602} = 98.92\%$ 1527

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12E Date: 05/10/96 Time: 10:32:52

Sample Size = 1 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 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	12.40	98.39
3	1.51	124.00	90.00
4	2.00	364.70	66.00
5	2.50	505.30	27.83
6	3.00	549.90	8.11
7	3.50	562.00	2.15
8	4.00	565.40	0.60
9	4.50	567.20	0.32
10	5.00	568.10	0.16
11	5.50	569.00	0.16
12	6.00	569.80	0.14
13	6.50	570.10	0.05
14	7.00	570.50	0.07
15	7.50	571.10	0.11
16	8.00	571.30	0.04
17	8.50	571.60	0.05
18	9.00	571.90	0.05
19	9.50	572.30	0.07
20	10.00	572.50	0.03
21	10.50	572.90	0.07
22	11.00	573.10	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS:
(573.1 - 26.61926)(1)/(1) = +5.465E+02 g/L Carbon
(573.1 - 26.61926)(1)/(1)(12) = +4.554E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 5/10/96
JL STEELE 00000

$\frac{546.5}{.200ml} = \frac{2.732}{3.0^{c3}} = 91.08\%$

1528

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 05/10/96 Time: 10:45:39

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	1.50	26.67
3	1.51	1.90	21.05
4	2.00	2.40	20.83
5	2.50	2.70	11.11
6	3.00	3.00	10.00
7	3.50	3.30	9.09
8	4.00	3.40	2.94
9	4.50	3.50	2.86
10	5.00	3.80	7.89
11	5.50	4.00	5.00
12	6.00	4.10	2.44
13	6.50	4.30	4.65
14	7.00	4.50	4.44
15	7.50	4.70	4.26
16	8.00	4.80	2.08
17	8.50	5.10	5.88
18	9.00	5.30	3.77
19	9.50	5.50	3.64
20	10.00	5.70	3.51
21	10.50	5.80	1.72
22	11.00	6.00	3.33

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(6 - 5.280322)(1)/(1) = +7.2E-01 g/L Carbon
(6 - 5.280322)(1)/(1)(12) = +6.0E-02 Molar Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

|6.00-5.30| = .7

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 05/10/96 Time: 10:58:18

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 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	1.00	80.00
3	1.50	4.90	79.59
4	2.00	10.80	54.63
5	2.51	15.60	30.77
6	3.01	17.30	9.83
7	3.51	18.30	5.46
8	4.00	18.80	2.66
9	4.50	19.30	2.59
10	5.00	19.70	2.03
11	5.50	20.10	1.99
12	6.00	20.40	1.47
13	6.50	20.80	1.92
14	7.00	21.50	3.26
15	7.50	21.80	1.38
16	8.00	22.00	0.91
17	8.50	22.30	1.35
18	9.00	22.50	0.89
19	9.50	22.70	0.88
20	10.00	22.90	0.87
21	10.50	23.10	0.87
22	11.00	23.30	0.86

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS:
(23.3 - 26.62384)(1)/(1) = < 5.00 E-3 g/L Carbon
(23.3 - 26.62384)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

|23.30 - 26.60| = 3.30

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001633 Date: 05/10/96 Time: 12:12:18

Sample Size = 1 uL .0766g
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	15.70	99.36
3	1.50	148.60	89.43
4	2.00	283.80	47.64
5	2.50	382.60	25.82
6	3.00	463.80	17.51
7	3.50	539.80	14.08
8	4.00	608.80	11.33
9	4.50	650.90	6.47
10	5.00	670.80	2.97
11	5.50	681.60	1.58
12	6.00	690.10	1.23
13	6.50	696.40	0.90
14	7.00	702.70	0.90
15	7.50	717.50	2.06
16	8.00	731.10	1.86
17	8.50	737.40	0.85
18	9.00	741.00	0.49
19	9.50	743.00	0.27
20	10.00	744.70	0.23
21	10.50	745.90	0.16
22	11.00	747.20	0.17

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(747.2 - 5.279443)(1)/(1) = +7.419E+02 g/L Carbon
(747.2 - 5.279443)(1)/(1)(12) = +6.183E+01 Molar Carbon

Sample Run By: Jennie Steele 5/10/96
JL STEELE 00000

$\frac{741.9}{.0766g} = 9.685^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001633 Date: 05/10/96 Time: 12:25:32

Sample Size = 1 uL .0766
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 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	31.60	96.84
3	1.51	230.70	86.30
4	2.00	587.60	60.74
5	2.50	846.70	30.60
6	3.00	953.30	11.18
7	3.50	998.40	4.52
8	4.00	1020.10	2.13
9	4.50	1031.30	1.09
10	5.00	1038.80	0.72
11	5.50	1043.80	0.48
12	6.00	1047.20	0.32
13	6.50	1050.20	0.29
14	7.00	1052.10	0.18
15	7.50	1053.90	0.17
16	8.00	1055.30	0.13
17	8.50	1056.50	0.11
18	9.00	1057.60	0.10
19	9.50	1058.60	0.09
20	10.00	1059.30	0.07
21	10.50	1060.10	0.08
22	11.00	1060.80	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS:
(1060.8 - 26.61734)(1)/(1) = +1.0342E+03 g/L Carbon
(1060.8 - 26.61734)(1)/(1)(12) = +8.6182E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

$\frac{1034.2}{.0766g} = 1.3501^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1633 DUP Date: 05/10/96 Time: 12:37:27

Sample Size = 1 uL .0949g
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	34.50	98.55
3	1.51	240.00	85.63
4	2.00	432.40	44.50
5	2.50	572.10	24.42
6	3.00	681.00	15.99
7	3.50	761.10	10.52
8	4.00	811.50	6.21
9	4.50	837.80	3.14
10	5.00	850.50	1.49
11	5.50	858.40	0.92
12	6.00	863.90	0.64
13	6.50	868.30	0.51
14	7.00	871.50	0.37
15	7.50	874.30	0.32
16	8.00	876.50	0.25
17	8.50	878.70	0.25
18	9.00	879.90	0.14
19	9.50	881.50	0.18
20	10.00	882.40	0.10
21	10.50	883.70	0.15
22	11.00	884.70	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(884.7 - 5.280732)(1)/(1) = +8.794E+02 g/L Carbon
(884.7 - 5.280732)(1)/(1)(12) = +7.328E+01 Molar Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

$\frac{879.4}{.0949g} = 9.266^{E3}$

1533

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1633 DUP Date: 05/10/96 Time: 12:50:10

Sample Size = 1 uL .0949g
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	19.80	93.43
3	1.50	203.80	90.28
4	2.00	572.00	64.37
5	2.50	913.10	37.36
6	3.00	1076.90	15.21
7	3.50	1152.40	6.55
8	4.00	1190.20	3.18
9	4.50	1211.10	1.73
10	5.00	1223.50	1.01
11	5.50	1231.80	0.67
12	6.00	1237.60	0.47
13	6.50	1241.90	0.35
14	7.00	1245.40	0.28
15	7.50	1248.10	0.22
16	8.00	1250.20	0.17
17	8.50	1252.30	0.17
18	9.00	1253.40	0.09
19	9.50	1255.00	0.13
20	10.00	1256.20	0.10
21	10.50	1257.00	0.06
22	11.00	1258.10	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS:
(1258.1 - 26.61926)(1)/(1) = +1.2315E+03 g/L Carbon
(1258.1 - 26.61926)(1)/(1)(12) = +1.0262E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

$\frac{1231.5}{.0949g} = 1.2977^{E4}$ 1534

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1633 SPIKE Date: 05/10/96 Time: 13:03:05

Sample Size = 1 uL .0968g
Dil Factor = 1
Blank ID # =
Blank Value = .48 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	31.40	97.45
3	1.50	318.00	90.13
4	2.00	631.80	49.67
5	2.50	861.80	26.69
6	3.00	1006.30	14.36
7	3.50	1093.70	7.99
8	4.00	1150.20	4.91
9	4.50	1187.70	3.16
10	5.00	1213.70	2.14
11	5.50	1227.10	1.09
12	6.00	1234.80	0.62
13	6.50	1240.40	0.45
14	7.00	1244.50	0.33
15	7.50	1247.90	0.27
16	8.00	1252.50	0.37
17	8.50	1257.20	0.37
18	9.00	1260.40	0.25
19	9.50	1262.40	0.16
20	10.00	1264.10	0.13
21	10.50	1265.60	0.12
22	11.00	1267.00	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(1267 - 5.279912)(1)/(1) = +1.2617E+03 g/L Carbon
(1267 - 5.279912)(1)/(1)(12) = +1.0514E+02 Molar Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

1535

$$\frac{1267.00}{\frac{747.20}{.0766kg} \times .0968 + 300} = \frac{1267.00}{1244.24} = 101.83\%$$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1633 SPIKE Date: 05/10/96 Time: 13:25:54

Sample Size = 1 uL .0968g
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 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	22.50	93.33
3	1.50	230.60	90.24
4	2.00	691.60	66.66
5	2.50	1175.30	41.16
6	3.00	1392.30	15.59
7	3.50	1481.30	6.01
8	4.00	1521.50	2.64
9	4.50	1539.60	1.18
10	5.00	1549.40	0.63
11	5.50	1555.80	0.41
12	6.00	1559.90	0.26
13	6.50	1563.70	0.24
14	7.00	1566.80	0.20
15	7.50	1568.90	0.13
16	8.00	1570.90	0.13
17	8.50	1572.60	0.11
18	9.00	1574.40	0.11
19	9.50	1575.90	0.10
20	10.00	1577.00	0.07
21	10.50	1578.10	0.07
22	11.00	1579.10	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS:
(1579.1 - 26.61926)(1)/(1) = +1.5525E+03 g/L Carbon
(1579.1 - 26.61926)(1)/(1)(12) = +1.2937E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

1536

$$\frac{1579.10}{\frac{1060.80}{.0768} \times .0968 + 300} = \frac{1579.10}{1640.54} = 96.25\%$$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001018 Date: 05/10/96 Time: 11:21:18

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	3.10	100.00
3	1.51	7.70	59.74
4	2.00	11.70	34.19
5	2.50	14.30	18.18
6	3.00	15.60	8.33
7	3.50	16.20	3.70
8	4.00	16.70	2.99
9	4.50	17.10	2.34
10	5.00	17.40	1.72
11	5.50	17.40	0.00
12	6.00	17.70	1.69
13	6.50	17.90	1.12
14	7.00	18.20	1.65
15	7.50	18.40	1.09
16	8.00	18.60	1.08
17	8.50	18.80	1.06
18	9.00	19.10	1.57
19	9.50	19.30	1.04
20	10.00	19.40	0.52
21	10.50	19.60	1.02
22	11.00	19.80	1.01

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(19.8 - 5.280322)(1)/(1) = +1.45E+01 g/L Carbon
(19.8 - 5.280322)(1)/(1)(12) = +1.21E+00 Molar Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

$\frac{14.5}{.250ml} = 5.8\ 1$ mg/ml

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001018 Date: 05/10/96 Time: 11:33:24

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 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	1.20	83.33
3	1.50	5.70	78.95
4	2.00	13.80	58.70
5	2.50	17.70	22.03
6	3.00	19.80	10.61
7	3.50	20.70	4.35
8	4.00	21.50	3.72
9	4.50	21.90	1.83
10	5.00	22.60	3.10
11	5.50	22.80	0.88
12	6.00	23.40	2.56
13	6.50	24.00	2.50
14	7.00	24.20	0.83
15	7.50	24.50	1.22
16	8.00	24.80	1.21
17	8.50	25.00	0.80
18	9.00	25.30	1.19
19	9.50	25.50	0.78
20	10.00	25.80	1.16
21	10.50	26.00	0.77
22	11.00	26.20	0.76

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS: <40 RWS 5/14/96
(26.2 - 26.6172)(1)/(1) = ~~< 5.00~~ E-3 g/L Carbon
(26.2 - 26.6172)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 5/10/96
JL STEELE 00000

<40 1538

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1018 DUP Date: 05/10/96 Time: 11:46:15

Sample Size = 1 uL .250ml
Dil Factor = 1
Blank ID # =
Blank Value = .48 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	2.30	95.65
3	1.51	7.10	67.61
4	2.00	11.10	36.04
5	2.50	14.00	20.71
6	3.00	15.30	8.50
7	3.50	16.20	5.56
8	4.00	16.60	2.41
9	4.50	16.90	1.78
10	5.00	17.30	2.31
11	5.50	17.50	1.14
12	6.00	17.60	0.57
13	6.50	17.90	1.68
14	7.00	18.30	2.19
15	7.50	18.40	0.54
16	8.00	18.70	1.60
17	8.50	18.90	1.06
18	9.00	19.20	1.56
19	9.50	19.40	1.03
20	10.00	19.60	1.02
21	10.50	19.80	1.01
22	11.00	20.00	1.00

USER INPUT BLANK VALUE
BLANK VALUE = 5.279941 micrograms carbon
BLANK FACTOR = 5.279941 / 10.99988 = +4.8E-01 ug/min Carbon

SAMPLE RESULTS:
(20 - 5.278945)(1)/(1) = +1.47E+01 g/L Carbon
(20 - 5.278945)(1)/(1)(12) = +1.23E+00 Molar Carbon

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

$\frac{14.7}{.250ml}$ = ~~5.8~~ 5.9 E/1539

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1018 DUP Date: 05/10/96 Time: 12:00:15

Sample Size = 1 uL . 250ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.42 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	1.00	80.00
3	1.50	5.00	80.00
4	2.00	11.60	56.90
5	2.50	16.00	27.50
6	3.00	17.90	10.61
7	3.50	19.20	6.77
8	4.00	19.90	3.52
9	4.50	20.40	2.45
10	5.00	20.90	2.39
11	5.50	21.40	2.34
12	6.00	21.70	1.38
13	6.50	22.10	1.81
14	7.00	22.50	1.78
15	7.50	22.70	0.88
16	8.00	23.00	1.30
17	8.50	23.20	0.86
18	9.00	23.40	0.85
19	9.50	23.70	1.27
20	10.00	24.00	1.25
21	10.50	24.20	0.83
22	11.00	24.40	0.82

USER INPUT BLANK VALUE
BLANK VALUE = 26.61971 micrograms carbon
BLANK FACTOR = 26.61971 / 10.99988 = +2.4E+00 ug/min Carbon

SAMPLE RESULTS:
<40 RWS 5/14/96
(24.4 - 26.62163)(1)/(1) = ~~< 5.00~~ E-3 g/L Carbon
(24.4 - 26.62163)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/10/96
JL STEELE 00000

<4C

1540

worklistrpt Version 2.1 05/15/95
05/15/96 13:50

LABCORE Data Entry Template for Worklist# 7900

Analyst: JLS2 **Instrument:** CARB2 _____ **Book #** 22N12A TIC 16N12E TOC

Method: LA-342-100 Rev/Mod D-0

Worklist Comment: U-105 for Acid Persulfate RTS!

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK				@TICTOC1 TIC-02	SOLID	1	2.4	N/A	ug/g
		1	BLNK				@TICTOC1 TOC-02	SOLID	1	4.3	N/A	ug/g
		2	STD				@TICTOC1 TIC-02	SOLID	6.02E2	6.01E2	N/A	ug/g
		2	STD				@TICTOC1 TOC-02	SOLID	3.00E3	2.77E3	N/A	ug/g
96000323	U-105 (R)	3	SAMPLE	S96T001634	0		@TICTOC1 TIC-02	SOLID	N/A	8.83E3	5.00	ug/g
96000323	U-105 (R)	3	SAMPLE	S96T001634	0		@TICTOC1 TOC-02	SOLID	N/A	1.21E4	40.0	ug/g
96000323	U-105 (R)	4	DUP	S96T001634	0		@TICTOC1 TIC-02	SOLID	8.83E3	9.15E3	N/A	ug/g
96000323	U-105 (R)	4	DUP	S96T001634	0		@TICTOC1 TOC-02	SOLID	1.21E4	1.25E4	N/A	ug/g
96000323	U-105 (R)	5	SPK	S96T001634	0		@TICTOC1 TIC-02	SOLID	100	106	N/A	ug/g
96000323	U-105 (R)	5	SPK	S96T001634	0		@TICTOC1 TOC-02	SOLID	100	104	N/A	ug/g
96000323	U-105 (R)	6	SAMPLE	S96T001635	0		@TICTOC1 TIC-02	SOLID	N/A	1.08E4	5.00	ug/g
96000323	U-105 (R)	6	SAMPLE	S96T001635	0		@TICTOC1 TOC-02	SOLID	N/A	1.48E4	40.0	ug/g
96000323	U-105 (R)	7	DUP	S96T001635	0		@TICTOC1 TIC-02	SOLID	1.08E4	1.03E4	N/A	ug/g
96000323	U-105 (R)	7	DUP	S96T001635	0		@TICTOC1 TOC-02	SOLID	1.48E4	1.37E4	N/A	ug/g
96000323	U-105 (R)	8	SAMPLE	S96T001636	0		@TICTOC1 TIC-02	SOLID	N/A	8.94E3	5.00	ug/g
96000323	U-105 (R)	8	SAMPLE	S96T001636	0		@TICTOC1 TOC-02	SOLID	N/A	1.23E4	40.0	ug/g
96000323	U-105 (R)	9	DUP	S96T001636	0		@TICTOC1 TIC-02	SOLID	8.94E3	7.91E3	N/A	ug/g
96000323	U-105 (R)	9	DUP	S96T001636	0		@TICTOC1 TOC-02	SOLID	1.23E4	1.07E4	N/A	ug/g

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# 7900

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	-------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT
96000323	U-105 (R)	10 SAMPLE	S96T001708	0		@TICTOC1 TIC-02	SOLID	N/A	1.19E4	5.00	ug/g
96000323	U-105 (R)	10 SAMPLE	S96T001708	0		@TICTOC1 TOC-02	SOLID	N/A	2.35E4	40.0	ug/g
96000323	U-105 (R)	11 DUP	S96T001708	0		@TICTOC1 TIC-02	SOLID	1.19E4	1.17E4	N/A	ug/g
96000323	U-105 (R)	11 DUP	S96T001708	0		@TICTOC1 TOC-02	SOLID	2.35E4	2.26E4	N/A	ug/g

Final page for worklist # 7900

Jacque Steele 5/15/96
Analyst Signature Date

Analyst Signature Date

Approved Rio Shutler
5/20/96

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: 05/15/96 Time: 09:46:30

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	0.70	0.00
2	1.01	1.40	50.00
3	1.50	2.00	30.00
4	2.00	2.40	16.67
5	2.50	2.60	7.69
6	3.00	2.80	7.14
7	3.50	3.10	9.68
8	4.00	3.30	6.06
9	4.50	3.50	5.71
10	5.00	3.70	5.41
11	5.50	3.90	5.13
12	6.00	4.20	7.14
13	6.50	4.30	2.33
14	7.00	4.50	4.44
15	7.50	4.80	6.25
16	8.00	4.90	2.04
17	8.50	5.30	7.55
18	9.00	5.50	3.64
19	9.50	5.60	1.79
20	10.00	5.80	3.45
21	10.50	6.00	3.33
22	11.00	6.20	3.23

BLANK VALUE = 6.2 micrograms carbon
BLANK FACTOR = 6.2 / 11.00061 = +5.6E-01 ug/min Carbon

Sample Run By: Jackie Steele 5/15/96
JLSTEELE 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE Date: 05/15/96 Time: 10:12:05

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	1.00	1.30	84.62
3	1.50	4.70	72.34
4	2.00	10.10	53.47
5	2.50	14.20	28.87
6	3.00	17.00	16.47
7	3.50	18.70	9.09
8	4.00	19.80	5.56
9	4.50	20.70	4.35
10	5.00	21.20	2.36
11	5.50	21.90	3.20
12	6.00	22.40	2.23
13	6.50	23.00	2.61
14	7.00	23.70	2.95
15	7.50	24.30	2.47
16	8.00	24.80	2.02
17	8.50	25.30	1.98
18	9.00	25.80	1.94
19	9.50	26.30	1.90
20	10.00	26.90	2.23
21	10.50	27.30	1.47
22	11.00	27.60	1.09

BLANK VALUE = 27.6 micrograms carbon
BLANK FACTOR = 27.6 / 10.99878 = +2.51E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 22N12A Date: 05/15/96 Time: 10:26:08

Sample Size = 1 uL 1.0ml
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	0.00	0.00
2	1.01	26.30	100.00
3	1.51	174.70	84.95
4	2.00	346.60	49.60
5	2.50	467.30	25.83
6	3.00	535.50	12.74
7	3.50	573.20	6.58
8	4.00	591.20	3.04
9	4.50	598.60	1.24
10	5.00	601.80	0.53
11	5.50	603.20	0.23
12	6.00	603.70	0.08
13	6.50	604.20	0.08
14	7.00	604.60	0.07
15	7.50	604.90	0.05
16	8.00	605.30	0.07
17	8.50	605.60	0.05
18	9.00	605.80	0.03
19	9.50	606.20	0.07
20	10.00	606.50	0.05
21	10.50	606.70	0.03
22	11.00	607.00	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(607 - 6.16082)(1)/(1) = +6.008E+02 g/L Carbon
(607 - 6.16082)(1)/(1)(12) = +5.007E+01 Molar Carbon

Sample Run By: Jackie Steele 5/16/96
JL STEELE 00000

$\frac{600-8}{602} = 99.802$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD 16N12E Date: 05/15/96 Time: 10:40:57

Sample Size = 1 uL .200ml
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 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	4.30	100.00
3	1.51	48.70	91.17
4	2.00	202.70	75.97
5	2.51	387.50	47.69
6	3.01	495.50	21.80
7	3.51	544.10	8.93
8	4.00	563.10	3.37
9	4.50	569.50	1.12
10	5.00	571.80	0.40
11	5.50	573.00	0.21
12	6.00	574.00	0.17
13	6.50	574.80	0.14
14	7.00	575.80	0.17
15	7.50	576.60	0.14
16	8.00	577.20	0.10
17	8.50	577.90	0.12
18	9.00	578.60	0.12
19	9.50	579.10	0.09
20	10.00	579.70	0.10
21	10.50	580.40	0.12
22	11.00	580.90	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(580.9 - 27.61414)(1)/(1) = +5.533E+02 g/L Carbon
(580.9 - 27.61414)(1)/(1)(12) = +4.611E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/16 Pb
JL STEELE 00000

$\frac{553.3}{.200ml} = \frac{2766.5}{3.00^{E3}} = 92.2220$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 05/15/96 Time: 10:54:20

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	1.51	2.90	31.03
4	2.00	3.70	21.62
5	2.50	4.20	11.90
6	3.00	4.40	4.55
7	3.50	4.80	8.33
8	4.00	5.00	4.00
9	4.50	5.30	5.66
10	5.00	5.50	3.64
11	5.50	5.80	5.17
12	6.00	6.00	3.33
13	6.50	6.30	4.76
14	7.00	6.60	4.55
15	7.50	6.80	2.94
16	8.00	7.20	5.56
17	8.50	7.30	1.37
18	9.00	7.60	3.95
19	9.50	7.80	2.56
20	10.00	8.10	3.70
21	10.50	8.30	2.41
22	11.00	8.60	3.49

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(8.6 - 6.159897)(1)/(1) = +2.4E+00 g/L Carbon
(8.6 - 6.159897)(1)/(1)(12) = +2.0E-01 Molar Carbon

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

|8.60 - 6.20| = 2.4

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: BLANK Date: 05/15/96 Time: 11:09:08

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 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	0.70	100.00
3	1.51	3.40	79.41
4	2.01	8.50	60.00
5	2.51	13.00	34.62
6	3.01	15.20	14.47
7	3.51	16.40	7.32
8	4.01	17.10	4.09
9	4.50	17.70	3.39
10	5.00	18.30	3.28
11	5.50	18.80	2.66
12	6.00	19.30	2.59
13	6.50	19.80	2.53
14	7.00	20.20	1.98
15	7.50	20.70	2.42
16	8.00	21.10	1.90
17	8.50	21.50	1.86
18	9.00	21.90	1.83
19	9.50	22.30	1.79
20	10.00	22.60	1.33
21	10.50	23.00	1.74
22	11.00	23.30	1.29

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(23.3 - 27.61383)(1)/(1) = < 5.00 E-3 g/L Carbon
(23.3 - 27.61383)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

|23.30 - 27.60| = 4.3

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001634 Date: 05/15/96 Time: 11:21:15

Sample Size = 1 uL .0970g
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	34.50	99.13
3	1.51	244.80	85.91
4	2.01	406.40	39.76
5	2.51	508.20	20.03
6	3.01	568.50	10.61
7	3.51	615.80	7.68
8	4.00	675.00	8.77
9	4.50	725.10	6.91
10	5.00	757.60	4.29
11	5.50	781.20	3.02
12	6.00	795.80	1.83
13	6.50	811.70	1.96
14	7.00	823.70	1.46
15	7.50	830.80	0.85
16	8.00	836.20	0.65
17	8.50	840.00	0.45
18	9.00	845.60	0.66
19	9.50	851.50	0.69
20	10.00	855.90	0.51
21	10.50	859.00	0.36
22	11.00	862.50	0.41

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(862.5 - 6.16082)(1)/(1) = +8.563E+02 g/L Carbon
(862.5 - 6.16082)(1)/(1)(12) = +7.136E+01 Molar Carbon

Sample Run By: Jacque Steele 5/15/96
JL STEELE 00000

$\frac{856.3}{.0970g} = 8.828^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001634 Date: 05/15/96 Time: 11:33:20

Sample Size = 1 uL .0970g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.70	0.00
2	1.01	10.50	83.81
3	1.50	109.30	90.39
4	2.00	342.90	68.12
5	2.50	665.90	48.51
6	3.00	902.00	26.18
7	3.50	1026.20	12.10
8	4.00	1092.40	6.06
9	4.50	1128.20	3.17
10	5.00	1150.80	1.96
11	5.50	1164.20	1.15
12	6.00	1173.50	0.79
13	6.50	1179.30	0.49
14	7.00	1184.00	0.40
15	7.50	1187.50	0.29
16	8.00	1190.60	0.26
17	8.50	1193.30	0.23
18	9.00	1195.60	0.19
19	9.50	1197.30	0.14
20	10.00	1199.00	0.14
21	10.50	1200.50	0.12
22	11.00	1201.80	0.11

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1201.8 - 27.60494)(1)/(1) = +1.1742E+03 g/L Carbon
(1201.8 - 27.60494)(1)/(1)(12) = +9.7850E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

$\frac{1174.2}{.0970g} = 1.2105^{E4}$ 1550

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1634 DUP Date: 05/15/96 Time: 11:45:38

Sample Size = 1 uL .0874g
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	1.10	0.00
2	1.01	19.60	94.39
3	1.50	236.20	91.70
4	2.00	450.80	47.60
5	2.50	578.00	22.01
6	3.00	655.60	11.84
7	3.50	701.80	6.58
8	4.00	730.30	3.90
9	4.50	749.70	2.59
10	5.00	760.70	1.45
11	5.50	767.10	0.83
12	6.00	773.40	0.81
13	6.50	779.70	0.81
14	7.00	784.50	0.61
15	7.50	787.60	0.39
16	8.00	790.20	0.33
17	8.50	792.70	0.32
18	9.00	797.00	0.54
19	9.50	801.20	0.52
20	10.00	803.50	0.29
21	10.50	804.90	0.17
22	11.00	806.20	0.16

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(806.2 - 6.158838)(1)/(1) = +8.000E+02 g/L Carbon
(806.2 - 6.158838)(1)/(1)(12) = +6.667E+01 Molar Carbon

Sample Run By: Jacque Steele 5/15/96
JL STEELE 00000

$\frac{800.0}{.0874} \rightarrow 9.153^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1634 DUP Date: 05/15/96 Time: 11:57:51

Sample Size = 1 uL .0874g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	10.40	87.50
3	1.50	92.20	88.72
4	2.00	307.60	70.03
5	2.50	608.00	49.41
6	3.00	839.00	27.53
7	3.50	956.90	12.32
8	4.00	1020.00	6.19
9	4.50	1055.50	3.36
10	5.00	1075.80	1.89
11	5.50	1087.50	1.08
12	6.00	1094.30	0.62
13	6.50	1099.30	0.45
14	7.00	1103.20	0.35
15	7.50	1106.20	0.27
16	8.00	1109.20	0.27
17	8.50	1111.90	0.24
18	9.00	1113.90	0.18
19	9.50	1115.70	0.16
20	10.00	1117.00	0.12
21	10.50	1118.20	0.11
22	11.00	1119.60	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1119.6 - 27.60724)(1)/(1) = +1.0920E+03 g/L Carbon
(1119.6 - 27.60724)(1)/(1)(12) = +9.0999E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 5/15/96
JL STEELE 00000

$\frac{1092.0}{.0874g} = 1.2494^{E4}$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1634 SPIKE Date: 05/15/96 Time: 12:11:56

Sample Size = 1 uL .1131g
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	32.20	99.38
3	1.50	313.70	89.74
4	2.01	616.40	49.11
5	2.51	839.30	26.56
6	3.01	1006.70	16.63
7	3.51	1120.70	10.17
8	4.00	1196.90	6.37
9	4.50	1251.90	4.39
10	5.00	1293.30	3.20
11	5.50	1321.20	2.11
12	6.00	1338.00	1.26
13	6.50	1347.60	0.71
14	7.00	1354.50	0.51
15	7.50	1359.50	0.37
16	8.00	1363.80	0.32
17	8.50	1367.70	0.29
18	9.00	1371.10	0.25
19	9.50	1373.60	0.18
20	10.00	1376.10	0.18
21	10.50	1378.20	0.15
22	11.00	1380.40	0.16

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(1380.4 - 6.160376)(1)/(1) = +1.3742E+03 g/L Carbon
(1380.4 - 6.160376)(1)/(1)(12) = +1.1452E+02 Molar Carbon

Sample Run By: Jessie Steele 5/15/96
JLOSTEELE 00000

$$\frac{1380.40}{\frac{862.50}{.0970} \times .1131 + 300} = \frac{1380.40}{1553 - 305.66} = 105.72\%$$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1634 SPIKE Date: 05/15/96 Time: 12:24:45

Sample Size = 1 uL .1131g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.70	0.00
2	1.01	12.70	86.61
3	1.51	124.10	89.77
4	2.01	405.80	69.42
5	2.51	856.20	52.60
6	3.00	1261.90	32.15
7	3.50	1489.40	15.27
8	4.00	1596.00	6.68
9	4.50	1653.70	3.49
10	5.00	1689.30	2.11
11	5.50	1711.80	1.31
12	6.00	1724.70	0.75
13	6.50	1733.50	0.51
14	7.00	1739.90	0.37
15	7.50	1744.60	0.27
16	8.00	1748.90	0.25
17	8.50	1752.00	0.18
18	9.00	1754.50	0.14
19	9.50	1756.90	0.14
20	10.00	1759.10	0.13
21	10.50	1760.80	0.10
22	11.00	1762.30	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1762.3 - 27.61168)(1)/(1) = +1.7347E+03 g/L Carbon
(1762.3 - 27.61168)(1)/(1)(12) = +1.4456E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

1554 $\dfrac{1762.30}{\dfrac{1201.80}{.0970} \times .1131 + 300} = \dfrac{1762.30}{1701.27} \approx 103.59\%$

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001635 Date: 05/15/96 Time: 12:36:53

Sample Size = 1 uL .0669g
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	1.30	0.00
2	1.01	27.30	95.24
3	1.51	226.80	87.96
4	2.00	394.10	42.45
5	2.50	505.90	22.10
6	3.00	578.20	12.50
7	3.50	628.50	8.00
8	4.00	660.20	4.80
9	4.50	680.20	2.94
10	5.00	692.00	1.71
11	5.50	700.40	1.20
12	6.00	707.40	0.99
13	6.50	712.00	0.65
14	7.00	715.50	0.49
15	7.50	718.40	0.40
16	8.00	721.00	0.36
17	8.50	723.40	0.33
18	9.00	725.70	0.32
19	9.50	727.50	0.25
20	10.00	729.00	0.21
21	10.50	730.50	0.21
22	11.00	731.80	0.18

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(731.8 - 6.160376)(1)/(1) = +7.256E+02 g/L Carbon
(731.8 - 6.160376)(1)/(1)(12) = +6.047E+01 Molar Carbon

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

$\frac{725.6}{.0669g} = 1.0846^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001635 Date: 05/15/96 Time: 12:49:19

Sample Size = 1 uL .06069g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	8.50	84.71
3	1.51	81.10	89.52
4	2.01	239.40	66.12
5	2.51	471.40	49.22
6	3.01	681.90	30.87
7	3.51	807.40	15.54
8	4.00	882.30	8.49
9	4.50	927.30	4.85
10	5.00	955.70	2.97
11	5.50	973.40	1.82
12	6.00	983.90	1.07
13	6.50	990.90	0.71
14	7.00	995.80	0.49
15	7.50	999.90	0.41
16	8.00	1003.70	0.38
17	8.50	1006.20	0.25
18	9.00	1008.80	0.26
19	9.50	1010.80	0.20
20	10.00	1013.00	0.22
21	10.50	1014.30	0.13
22	11.00	1015.80	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1015.8 - 27.60939)(1)/(1) = +9.8819E+02 g/L Carbon
(1015.8 - 27.60939)(1)/(1)(12) = +8.2349E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

$\frac{9881.9}{.06069g} = \cancel{1.4775}\ 1.4771^{E4}$ 1556

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1635 DUP Date: 05/15/96 Time: 13:01:17

Sample Size = 1 uL .0579g
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	1.30	0.00
2	1.01	17.70	92.66
3	1.51	172.20	89.72
4	2.00	319.00	46.02
5	2.50	420.40	24.12
6	3.01	483.40	13.03
7	3.51	524.80	7.89
8	4.01	551.90	4.91
9	4.50	567.40	2.73
10	5.00	575.60	1.42
11	5.50	580.70	0.88
12	6.00	584.50	0.65
13	6.50	587.40	0.49
14	7.00	590.40	0.51
15	7.50	592.70	0.39
16	8.00	595.00	0.39
17	8.50	597.00	0.34
18	9.00	598.60	0.27
19	9.50	600.30	0.28
20	10.00	601.70	0.23
21	10.50	603.00	0.22
22	11.00	604.20	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(604.2 - 6.161948)(1)/(1) = +5.980E+02 g/L Carbon
(604.2 - 6.161948)(1)/(1)(12) = +4.984E+01 Molar Carbon

Sample Run By: Jacque Steele 5/15/96
JL STEELE 00000

$\frac{598.0}{.0579g} = 1.0328^{E4}$

1557

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1635 DUP Date: 05/15/96 Time: 13:14:47

Sample Size = 1 uL .0579g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 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	10.20	89.22
3	1.51	84.20	87.89
4	2.00	265.10	68.24
5	2.50	492.60	46.18
6	3.00	635.80	22.52
7	3.50	709.40	10.37
8	4.00	749.70	5.38
9	4.50	775.10	3.28
10	5.00	789.10	1.77
11	5.50	796.40	0.92
12	6.00	801.80	0.67
13	6.50	805.10	0.41
14	7.00	808.40	0.41
15	7.50	810.60	0.27
16	8.00	812.70	0.26
17	8.50	814.70	0.25
18	9.00	816.50	0.22
19	9.50	818.20	0.21
20	10.00	819.70	0.18
21	10.50	820.80	0.13
22	11.00	821.90	0.13

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(821.9 - 27.60709)(1)/(1) = +7.943E+02 g/L Carbon
(821.9 - 27.60709)(1)/(1)(12) = +6.619E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 5/15/96
JL STEELE 00000

$\frac{794.3}{.0579g} = 1.3718E4$

1558

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001636 Date: 05/15/96 Time: 13:26:48

Sample Size = 1 uL .076dg
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	0.60	0.00
2	1.01	18.50	96.76
3	1.50	169.10	89.06
4	2.00	334.10	49.39
5	2.50	442.00	24.41
6	3.00	509.80	13.30
7	3.50	557.00	8.47
8	4.00	594.60	6.32
9	4.50	622.10	4.42
10	5.00	641.00	2.95
11	5.50	652.30	1.73
12	6.00	659.30	1.06
13	6.50	664.20	0.74
14	7.00	668.00	0.57
15	7.50	671.40	0.51
16	8.00	674.30	0.43
17	8.50	677.20	0.43
18	9.00	679.60	0.35
19	9.50	681.40	0.26
20	10.00	683.20	0.26
21	10.50	684.80	0.23
22	11.00	686.30	0.22

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(686.3 - 6.159829)(1)/(1) = +6.801E+02 g/L Carbon
(686.3 - 6.159829)(1)/(1)(12) = +5.668E+01 Molar Carbon

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

$\frac{680.1}{.076g} = 8.937^{E3}$ 1559

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001636 Date: 05/15/96 Time: 13:40:50

Sample Size = 1 uL .0761g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	10.50	87.62
3	1.51	85.00	87.65
4	2.01	270.10	68.53
5	2.50	518.20	47.88
6	3.00	703.20	26.31
7	3.50	800.60	12.17
8	4.00	857.90	6.68
9	4.50	894.00	4.04
10	5.00	917.20	2.53
11	5.50	931.00	1.48
12	6.00	939.00	0.85
13	6.50	944.20	0.55
14	7.00	948.80	0.48
15	7.50	952.20	0.36
16	8.00	955.00	0.29
17	8.50	957.60	0.27
18	9.00	959.60	0.21
19	9.50	961.80	0.23
20	10.00	963.30	0.16
21	10.50	964.80	0.16
22	11.00	966.00	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(966 - 27.60969)(1)/(1) = +9.384E+02 g/L Carbon
(966 - 27.60969)(1)/(1)(12) = +7.820E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jeanne Steele 5/16/96
JL STEELE 00000

$\frac{938.4}{.0761g} = 1.2331^{E4}$

1560

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1636 DUP Date: 05/15/96 Time: 13:52:44

Sample Size = 1 uL .0879g
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	0.60	0.00
2	1.01	15.80	96.20
3	1.50	147.20	89.27
4	2.00	326.00	54.85
5	2.50	449.80	27.52
6	3.00	530.80	15.26
7	3.50	583.80	9.08
8	4.00	619.00	5.69
9	4.50	642.30	3.63
10	5.00	658.60	2.47
11	5.50	668.30	1.45
12	6.00	674.10	0.86
13	6.50	678.60	0.66
14	7.00	682.70	0.60
15	7.50	686.30	0.52
16	8.00	689.40	0.45
17	8.50	691.80	0.35
18	9.00	694.30	0.36
19	9.50	696.50	0.32
20	10.00	698.30	0.26
21	10.50	699.90	0.23
22	11.00	701.60	0.24

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(701.6 - 6.159795)(1)/(1) = +6.954E+02 g/L Carbon
(701.6 - 6.159795)(1)/(1)(12) = +5.795E+01 Molar Carbon

Sample Run By: Jacque Steele 5/15/96
JL STEELE 00000

$\frac{695.4}{.0879g} = 7.911^{E3}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1636 DUP Date: 05/15/96 Time: 14:04:49

Sample Size = 1 uL .0879g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.60	0.00
2	1.01	10.70	85.05
3	1.51	96.30	88.89
4	2.00	281.30	65.77
5	2.50	522.80	46.19
6	3.00	698.60	25.16
7	3.50	794.90	12.11
8	4.00	853.20	6.83
9	4.50	890.90	4.23
10	5.00	915.30	2.67
11	5.50	930.80	1.67
12	6.00	940.90	1.07
13	6.50	947.00	0.64
14	7.00	951.70	0.49
15	7.50	955.60	0.41
16	8.00	958.90	0.34
17	8.50	962.00	0.32
18	9.00	964.30	0.24
19	9.50	966.20	0.20
20	10.00	968.20	0.21
21	10.50	969.70	0.15
22	11.00	971.20	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(971.2 - 27.60923)(1)/(1) = +9.436E+02 g/L Carbon
(971.2 - 27.60923)(1)/(1)(12) = +7.863E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jacque Steele 6/16/96
JL STEELE 00000

$\frac{943.6}{.0879g} = 1.0735^{E4}$

1562

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001708 Date: 05/15/96 Time: 14:16:48

Sample Size = 1 uL .0889g
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	1.20	0.00
2	1.01	35.10	96.58
3	1.51	292.50	88.00
4	2.00	557.90	47.57
5	2.50	727.20	23.28
6	3.00	832.50	12.65
7	3.50	904.60	7.97
8	4.00	953.80	5.16
9	4.50	987.50	3.41
10	5.00	1010.70	2.30
11	5.50	1025.80	1.47
12	6.00	1034.70	0.86
13	6.50	1040.70	0.58
14	7.00	1045.40	0.45
15	7.50	1049.80	0.42
16	8.00	1053.10	0.31
17	8.50	1056.40	0.31
18	9.00	1059.30	0.27
19	9.50	1061.50	0.21
20	10.00	1063.70	0.21
21	10.50	1065.60	0.18
22	11.00	1067.20	0.15

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(1067.2 - 6.159897)(1)/(1) = +1.0610E+03 g/L Carbon
(1067.2 - 6.159897)(1)/(1)(12) = +8.8420E+01 Molar Carbon

Sample Run By: Jackie Steele 6/15/96
JL STEELE 00000

$\frac{1061.0}{.0889g} = 1.1935^{E4}$

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001708 Date: 05/15/96 Time: 14:30:05

Sample Size = 1 uL .0889g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 ug/minute C

Analyst : JL STEELE
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.00	12.60	88.89
3	1.50	147.60	91.46
4	2.00	432.80	65.90
5	2.50	894.60	51.62
6	3.00	1385.70	35.44
7	3.50	1687.40	17.88
8	4.00	1840.50	8.32
9	4.50	1923.60	4.32
10	5.00	1977.60	2.73
11	5.50	2016.60	1.93
12	6.00	2043.90	1.34
13	6.50	2062.40	0.90
14	7.00	2075.30	0.62
15	7.50	2084.80	0.46
16	8.00	2092.40	0.36
17	8.50	2098.00	0.27
18	9.00	2102.90	0.23
19	9.50	2106.40	0.17
20	10.00	2109.40	0.14
21	10.50	2112.50	0.15
22	11.00	2115.00	0.12

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(2115 - 27.60893)(1)/(1) = +2.0874E+03 g/L Carbon
(2115 - 27.60893)(1)/(1)(12) = +1.7395E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jeanie Steele 6/15/96
JL STEELE 00000

$\frac{2087.4}{.0889g} = 2.3480E4$

1564

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1708 DUP Date: 05/15/96 Time: 14:42:38

Sample Size = 1 uL .0653g
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	1.60	0.00
2	1.01	35.30	95.47
3	1.50	214.60	83.55
4	2.00	405.90	47.13
5	2.50	530.90	23.54
6	3.00	608.30	12.72
7	3.50	657.20	7.44
8	4.00	690.50	4.82
9	4.50	713.70	3.25
10	5.00	729.30	2.14
11	5.50	737.80	1.15
12	6.00	743.90	0.82
13	6.50	748.00	0.55
14	7.00	751.30	0.44
15	7.50	754.30	0.40
16	8.00	756.80	0.33
17	8.50	759.30	0.33
18	9.00	761.40	0.28
19	9.50	763.30	0.25
20	10.00	764.80	0.20
21	10.50	766.50	0.22
22	11.00	768.00	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 6.159317 micrograms carbon
BLANK FACTOR = 6.159317 / 10.99878 = +5.6E-01 ug/min Carbon

SAMPLE RESULTS:
(768 - 6.159932)(1)/(1) = +7.618E+02 g/L Carbon
(768 - 6.159932)(1)/(1)(12) = +6.349E+01 Molar Carbon

Sample Run By: Jeanne Steele 6/15/96
JL STEELE 00000

$\frac{761.8}{.0653g} = 1.1666^{E4}$

1565

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: 1708 DUP Date: 05/15/96 Time: 14:54:38

Sample Size = 1 uL .0653g
Dil Factor = 1
Blank ID # =
Blank Value = 2.51 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	10.80	88.89
3	1.50	113.50	90.48
4	2.00	338.90	66.51
5	2.50	700.00	51.59
6	3.00	1015.70	31.08
7	3.50	1203.60	15.61
8	4.00	1299.10	7.35
9	4.50	1359.90	4.47
10	5.00	1400.40	2.89
11	5.50	1428.70	1.98
12	6.00	1448.90	1.39
13	6.50	1462.40	0.92
14	7.00	1471.10	0.59
15	7.50	1477.90	0.46
16	8.00	1483.10	0.35
17	8.50	1487.70	0.31
18	9.00	1491.20	0.23
19	9.50	1494.50	0.22
20	10.00	1497.00	0.17
21	10.50	1499.50	0.17
22	11.00	1501.60	0.14

USER INPUT BLANK VALUE
BLANK VALUE = 27.60694 micrograms carbon
BLANK FACTOR = 27.60694 / 10.99878 = +2.5E+00 ug/min Carbon

SAMPLE RESULTS:
(1501.6 - 27.61168)(1)/(1) = +1.4740E+03 g/L Carbon
(1501.6 - 27.61168)(1)/(1)(12) = +1.2283E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: Jackie Steele 5/15/96
JL STEELE 00000

1566

$\frac{1474.0}{.0653g} = 2.2573^{E4}$

LABCORE Data Entry Template for Worklist# 7902

Analyst: SLH **Instrument:** CARB2 _____ **Book#** TIC 22N12-B
TOC 24N12-A

Method: LA-342-100 Rev/Mod d-c

Worklist Comment: U-105 for Acid Persulfate RTS!

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	SOLID		
2	STD				@TICTOC1	SOLID		
3	SAMPLE	S96T001709	0		@TICTOC1	SOLID	96000323	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
4	DUP	S96T001709	0		@TICTOC1	SOLID		
5	SPK	S96T001709	0		@TICTOC1	SOLID		
6	SAMPLE	S96T001738	0		@TICTOC1	SOLID	96000323	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
7	DUP	S96T001738	0		@TICTOC1	SOLID		
8	SAMPLE	S96T001739	0		@TICTOC1	SOLID	96000323	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
9	DUP	S96T001739	0		@TICTOC1	SOLID		
10	SAMPLE	S96T001763	0		@TICTOC1	SOLID	96000323	U-105 (R)
	Analytes Requested: TIC-02 , TOC-02							
11	DUP	S96T001763	0		@TICTOC1	SOLID		

Final page for worklist # 7902

Sandra Elliott Bostrom
Analyst Signature **Date** 6-12-96

Analyst Signature **Date**

Data Entry Comments:

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

LABCORE Completed Worklist Report for Worklist# 7902

Analyst: slh **Instrument:** CARB2 **Book#** _____

Method: _____ Rev/Mod _____

Worklist Comment: U-105 for Acid Persulfate RTS!

Seq	Type	Sample#	R	A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK			0	@TICTOC1 TIC-02	SOLID	1	1.00E-1	0.100	ug/g
1	BLNK			0	@TICTOC1 TOC-02	SOLID	1	1.10E+0	1.100	ug/g
2	STD			0	@TICTOC1 TIC-02	SOLID	6.02E+02	5.71E+2	94.850	% Recovery
2	STD			0	@TICTOC1 TOC-02	SOLID	3.00E+03	2.80E+3	93.333	% Recovery
3	SAMPLE	S96T001709		0	@TICTOC1 TIC-02	SOLID	N/A	9.94E+03	5.000	ug/g
3	SAMPLE	S96T001709		0	@TICTOC1 TOC-02	SOLID	N/A	1.85E+04	40.000	ug/g
4	DUP	S96T001709		0	@TICTOC1 TIC-02	SOLID	9.94E+3	1.05E+4	5.479	RPD
4	DUP	S96T001709		0	@TICTOC1 TOC-02	SOLID	1.85E+4	1.97E+4	6.283	RPD
5	SPK	S96T001709		0	@TICTOC1 TIC-02	SOLID	1.00E+02	1.02E+02	102.000	% Recovery
5	SPK	S96T001709		0	@TICTOC1 TOC-02	SOLID	1.00E+02	1.07E+02	107.000	% Recovery
6	SAMPLE	S96T001738		0	@TICTOC1 TIC-02	SOLID	N/A	5.39E+03	5.000	ug/g
6	SAMPLE	S96T001738		0	@TICTOC1 TOC-02	SOLID	N/A	1.41E+04	40.000	ug/g
7	DUP	S96T001738		0	@TICTOC1 TIC-02	SOLID	5.39E+3	5.22E+3	3.205	RPD
7	DUP	S96T001738		0	@TICTOC1 TOC-02	SOLID	1.41E+4	1.40E+4	0.712	RPD
8	SAMPLE	S96T001739		0	@TICTOC1 TIC-02	SOLID	N/A	3.96E+03	5.000	ug/g
8	SAMPLE	S96T001739		0	@TICTOC1 TOC-02	SOLID	N/A	9.97E+03	40.000	ug/g
9	DUP	S96T001739		0	@TICTOC1 TIC-02	SOLID	3.96E+3	3.66E+3	7.874	RPD
9	DUP	S96T001739		0	@TICTOC1 TOC-02	SOLID	9.97E+3	9.70E+3	2.745	RPD
10	SAMPLE	S96T001763		0	@TICTOC1 TIC-02	SOLID	N/A	4.08E+03	5.000	ug/g
10	SAMPLE	S96T001763		0	@TICTOC1 TOC-02	SOLID	N/A	1.59E+04	40.000	ug/g
11	DUP	S96T001763		0	@TICTOC1 TIC-02	SOLID	4.08E+3	3.73E+3	8.963	RPD
11	DUP	S96T001763		0	@TICTOC1 TOC-02	SOLID	1.59E+4	1.66E+4	4.308	RPD

Final page for worklist# 7902

6-12-96

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

6/12/96

Reviewer Signature **Date**

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

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: SSTD Date: 06/11/96 Time: 22:33:05

Sample Size = 1000 uL
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	89.20	98.88
3	1.50	257.20	65.32
4	2.00	397.30	35.26
5	2.50	485.00	18.08
6	3.00	533.80	9.14
7	3.50	559.50	4.59
8	4.00	569.50	1.76
9	4.50	573.90	0.77
10	5.00	575.60	0.30
11	5.50	576.30	0.12
12	6.00	577.00	0.12
13	6.50	577.50	0.09
14	7.00	577.80	0.05
15	7.50	578.10	0.05
16	8.00	578.50	0.07
17	8.50	578.80	0.05
18	9.00	579.10	0.05
19	9.50	579.40	0.05
20	10.00	579.80	0.07
21	10.50	580.10	0.05
22	11.00	580.30	0.03

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(580.3 - 9.239077)(1)/(1000) = +5.711E-01 g/L Carbon
(580.3 - 9.239077)(1)/(1000)(12) = +4.759E-02 Molar Carbon

Sample Run By: Sarah L Hood Bechtold
SL HOOD 00000

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 1569 TO 1603.

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: STD Date: 06/11/96 Time: 22:45:08

Sample Size = 200 uL
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	69.80	99.28
3	1.50	241.90	71.15
4	2.00	432.70	44.10
5	2.50	531.70	18.62
6	3.01	569.40	6.62
7	3.51	581.50	2.08
8	4.01	585.60	0.70
9	4.50	587.40	0.31
10	5.00	588.50	0.19
11	5.50	589.30	0.14
12	6.00	590.30	0.17
13	6.50	591.20	0.15
14	7.00	592.00	0.14
15	7.50	592.70	0.12
16	8.00	593.20	0.08
17	8.50	593.70	0.08
18	9.00	594.20	0.08
19	9.50	594.70	0.08
20	10.00	595.10	0.07
21	10.50	595.40	0.05
22	11.00	595.80	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(595.8 - 35.75516)(1)/(200) = +2.800E+00 g/L Carbon
(595.8 - 35.75516)(1)/(200)(12) = +2.334E-01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: [signature]
SL HOOD 00000
6-12-96

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BLK Date: 06/11/96 Time: 21:54:46

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	1.70	0.00
2	1.01	2.50	32.00
3	1.51	3.20	21.88
4	2.01	3.70	13.51
5	2.51	4.20	11.90
6	3.01	4.60	8.70
7	3.51	5.00	8.00
8	4.01	5.30	5.66
9	4.50	5.60	5.36
10	5.00	5.80	3.45
11	5.50	6.10	4.92
12	6.00	6.30	3.17
13	6.50	6.70	5.97
14	7.00	7.00	4.29
15	7.50	7.20	2.78
16	8.00	7.50	4.00
17	8.50	7.80	3.85
18	9.00	8.00	2.50
19	9.50	8.30	3.61
20	10.00	8.60	3.49
21	10.50	8.80	2.27
22	11.00	9.20	4.35

BLANK VALUE = 9.2 micrograms carbon
BLANK FACTOR = 9.2 / 10.99988 = +8.4E-01 ug/min Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0
<<< BLANK ANALYSIS >>>

Sample: BASELINE BLK Date: 06/11/96 Time: 22:08:01

Sample Size = 1 uL
Dil Factor = 1
Blank ID # = BASELINE 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	3.60	94.44
3	1.50	10.90	66.97
4	2.00	18.90	42.33
5	2.50	23.20	18.53
6	3.00	25.70	9.73
7	3.50	27.00	4.81
8	4.00	28.10	3.91
9	4.50	28.90	2.77
10	5.00	29.70	2.69
11	5.50	30.40	2.30
12	6.00	31.00	1.94
13	6.50	31.50	1.59
14	7.00	32.00	1.56
15	7.50	32.50	1.54
16	8.00	32.90	1.22
17	8.50	33.30	1.20
18	9.00	33.70	1.19
19	9.50	34.10	1.17
20	10.00	34.50	1.16
21	10.50	35.10	1.71
22	11.00	35.80	1.96

BLANK VALUE = 35.8 micrograms carbon
BLANK FACTOR = 35.8 / 11.00061 = +3.25E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 06/11/96 Time: 22:57:05

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	2.30	82.61
3	1.50	3.50	34.29
4	2.00	4.00	12.50
5	2.50	4.60	13.04
6	3.00	4.90	6.12
7	3.50	5.20	5.77
8	4.00	5.50	5.45
9	4.50	5.80	5.17
10	5.00	6.10	4.92
11	5.50	6.30	3.17
12	6.00	6.60	4.55
13	6.50	6.90	4.35
14	7.00	7.10	2.82
15	7.50	7.40	4.05
16	8.00	7.80	5.13
17	8.50	7.90	1.27
18	9.00	8.20	3.66
19	9.50	8.40	2.38
20	10.00	8.60	2.33
21	10.50	9.00	4.44
22	11.00	9.10	1.10

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(9.1 - 9.239077)(1)/(1) = < 5.00 E-3 g/L Carbon
(9.1 - 9.239077)(1)/(1)(12) = < 4.17 E-4 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: B-2 Date: 06/11/96 Time: 23:09:44

Sample Size = 1 uL
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	7.10	91.55
3	1.50	15.70	54.78
4	2.00	22.40	29.91
5	2.50	25.90	13.51
6	3.00	27.10	4.43
7	3.50	28.00	3.21
8	4.00	28.60	2.10
9	4.50	29.40	2.72
10	5.00	30.10	2.33
11	5.50	30.60	1.63
12	6.00	31.20	1.92
13	6.50	31.60	1.27
14	7.00	32.10	1.56
15	7.50	32.40	0.93
16	8.00	32.80	1.22
17	8.50	33.20	1.20
18	9.00	33.60	1.19
19	9.50	33.90	0.88
20	10.00	34.20	0.88
21	10.50	34.40	0.58
22	11.00	34.70	0.86

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(34.7 - 35.74643)(1)/(1) = < 5.00 E-3 g/L Carbon
(34.7 - 35.74643)(1)/(1)(12) = < 4.17 E-4 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001709 Date: 06/11/96 Time: 23:22:01

Sample Size = 1 uL .1604g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	30.30	99.01
3	1.51	352.80	91.41
4	2.00	852.10	58.60
5	2.50	1190.60	28.43
6	3.00	1384.80	14.02
7	3.50	1485.40	6.77
8	4.00	1541.20	3.62
9	4.50	1568.80	1.76
10	5.00	1580.90	0.77
11	5.50	1586.80	0.37
12	6.00	1590.10	0.21
13	6.50	1592.50	0.15
14	7.00	1594.60	0.13
15	7.50	1596.30	0.11
16	8.00	1597.50	0.08
17	8.50	1598.80	0.08
18	9.00	1600.10	0.08
19	9.50	1601.00	0.06
20	10.00	1602.20	0.07
21	10.50	1603.00	0.05
22	11.00	1604.00	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(1604 - 9.239692)(1)/(1) = +1.5948E+03 g/L Carbon
(1604 - 9.239692)(1)/(1)(12) = +1.3290E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001709 Date: 06/11/96 Time: 23:34:52

Sample Size = 1 uL
Dil Factor = 1 .1604g
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	5.10	0.00
2	1.01	264.30	98.07
3	1.51	645.00	59.02
4	2.01	1264.70	49.00
5	2.51	2001.90	36.83
6	3.01	2484.80	19.43
7	3.51	2689.90	7.62
8	4.01	2795.60	3.78
9	4.50	2859.60	2.24
10	5.00	2901.00	1.43
11	5.50	2930.30	1.00
12	6.00	2948.10	0.60
13	6.50	2960.30	0.41
14	7.00	2969.20	0.30
15	7.50	2975.90	0.23
16	8.00	2981.50	0.19
17	8.50	2985.80	0.14
18	9.00	2989.10	0.11
19	9.50	2992.10	0.10
20	10.00	2995.00	0.10
21	10.50	2997.00	0.07
22	11.00	2999.20	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(2999.2 - 35.74921)(1)/(1) = +2.9635E+03 g/L Carbon
(2999.2 - 35.74921)(1)/(1)(12) = +2.4695E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01709 DUP Date: 06/11/96 Time: 23:46:50

Sample Size = 1 uL, 1472
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	35.00	95.43
3	1.51	393.00	91.09
4	2.00	868.60	54.75
5	2.50	1182.70	26.56
6	3.00	1355.40	12.74
7	3.50	1445.90	6.26
8	4.00	1494.00	3.22
9	4.50	1517.30	1.54
10	5.00	1527.50	0.67
11	5.50	1531.90	0.29
12	6.00	1535.20	0.21
13	6.50	1537.50	0.15
14	7.00	1539.40	0.12
15	7.50	1540.90	0.10
16	8.00	1542.60	0.11
17	8.50	1543.70	0.07
18	9.00	1544.90	0.08
19	9.50	1546.20	0.08
20	10.00	1547.10	0.06
21	10.50	1548.10	0.06
22	11.00	1549.30	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(1549.3 - 9.240615)(1)/(1) = +1.5401E+03 g/L Carbon
(1549.3 - 9.240615)(1)/(1)(12) = +1.2834E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01709 DUP Date: 06/11/96 Time: 23:59:14

Sample Size = 1 uL
Dil Factor = 1 .14729
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	7.80	0.00
2	1.01	349.00	97.77
3	1.50	852.40	59.06
4	2.00	1558.00	45.29
5	2.50	2219.60	29.81
6	3.00	2551.50	13.01
7	3.50	2696.10	5.36
8	4.00	2777.80	2.94
9	4.50	2828.30	1.79
10	5.00	2861.90	1.17
11	5.50	2881.90	0.69
12	6.00	2895.10	0.46
13	6.50	2904.40	0.32
14	7.00	2911.30	0.24
15	7.50	2916.70	0.19
16	8.00	2921.30	0.16
17	8.50	2924.70	0.12
18	9.00	2927.70	0.10
19	9.50	2930.00	0.08
20	10.00	2932.10	0.07
21	10.50	2934.00	0.06
22	11.00	2935.70	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(2935.7 - 35.74603)(1)/(1) = +2.9000E+03 g/L Carbon
(2935.7 - 35.74603)(1)/(1)(12) = +2.4166E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01709 SPK Date: 06/12/96 Time: 00:11:16

Sample Size = 1 uL .1574g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.00	72.90	98.08
3	1.50	544.40	86.61
4	2.00	1063.00	48.79
5	2.50	1425.70	25.44
6	3.00	1644.30	13.29
7	3.50	1761.60	6.66
8	4.00	1824.20	3.43
9	4.50	1862.70	2.07
10	5.00	1882.40	1.05
11	5.50	1890.30	0.42
12	6.00	1894.70	0.23
13	6.50	1897.90	0.17
14	7.00	1900.20	0.12
15	7.50	1902.40	0.12
16	8.00	1904.20	0.09
17	8.50	1905.90	0.09
18	9.00	1907.40	0.08
19	9.50	1908.90	0.08
20	10.00	1910.00	0.06
21	10.50	1911.20	0.06
22	11.00	1912.30	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(1912.3 - 9.24042)(1)/(1) = +1.9031E+03 g/L Carbon
(1912.3 - 9.24042)(1)/(1)(12) = +1.5859E+02 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01709 SPK Date: 06/12/96 Time: 01:04:48

Sample Size = 1 uL .1574g
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.20	0.00
2	1.01	34.70	96.54
3	1.50	259.60	86.63
4	2.00	675.60	61.57
5	2.50	1293.60	47.77
6	3.00	2034.70	36.42
7	3.50	2707.60	24.85
8	4.00	3021.50	10.39
9	4.50	3171.70	4.74
10	5.00	3262.30	2.78
11	5.50	3324.30	1.87
12	6.00	3367.30	1.28
13	6.50	3396.70	0.87
14	7.00	3416.60	0.58
15	7.50	3429.40	0.37
16	8.00	3439.50	0.29
17	8.50	3447.20	0.22
18	9.00	3453.30	0.18
19	9.50	3458.00	0.14
20	10.00	3462.10	0.12
21	10.50	3465.50	0.10
22	11.00	3468.20	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(3468.2 - 35.74621)(1)/(1) = +3.4325E+03 g/L Carbon
(3468.2 - 35.74621)(1)/(1)(12) = +2.8604E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001738 Date: 06/12/96 Time: 01:19:20

Sample Size = 1 uL .1079g
Dil Factor = 1
Blank ID # =
Blank Value = .84 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	13.60	98.53
3	1.50	107.10	87.30
4	2.00	272.10	60.64
5	2.50	406.10	33.00
6	3.00	483.70	16.04
7	3.50	530.50	8.82
8	4.00	558.50	5.01
9	4.50	572.10	2.38
10	5.00	576.80	0.81
11	5.50	579.20	0.41
12	6.00	581.00	0.31
13	6.50	582.30	0.22
14	7.00	583.80	0.26
15	7.50	584.90	0.19
16	8.00	586.00	0.19
17	8.50	587.10	0.19
18	9.00	587.90	0.14
19	9.50	588.80	0.15
20	10.00	589.50	0.12
21	10.50	590.30	0.14
22	11.00	591.10	0.14

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(591.1 - 9.239013)(1)/(1) = +5.819E+02 g/L Carbon
(591.1 - 9.239013)(1)/(1)(12) = +4.849E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001738 Date: 06/12/96 Time: 01:31:36

Sample Size = 1 uL .1079g
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	3.00	0.00
2	1.01	193.60	98.45
3	1.51	536.90	63.94
4	2.01	959.30	44.03
5	2.51	1230.10	22.01
6	3.00	1354.50	9.18
7	3.50	1422.00	4.75
8	4.00	1464.90	2.93
9	4.50	1495.30	2.03
10	5.00	1514.10	1.24
11	5.50	1526.00	0.78
12	6.00	1533.40	0.48
13	6.50	1538.50	0.33
14	7.00	1542.90	0.29
15	7.50	1546.60	0.24
16	8.00	1549.20	0.17
17	8.50	1551.40	0.14
18	9.00	1553.20	0.12
19	9.50	1555.00	0.12
20	10.00	1556.30	0.08
21	10.50	1557.40	0.07
22	11.00	1558.60	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1558.6 - 35.75488)(1)/(1) = +1.5228E+03 g/L Carbon
(1558.6 - 35.75488)(1)/(1)(12) = +1.2690E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01738 DUP Date: 06/12/96 Time: 01:45:09

Sample Size = 1 uL/1.5lg
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	9.40	90.43
3	1.51	83.20	88.70
4	2.00	232.40	64.20
5	2.50	372.90	37.68
6	3.00	463.70	19.58
7	3.50	520.20	10.86
8	4.00	557.30	6.66
9	4.50	579.70	3.86
10	5.00	591.20	1.95
11	5.50	595.30	0.69
12	6.00	597.80	0.42
13	6.50	599.70	0.32
14	7.00	601.30	0.27
15	7.50	602.70	0.23
16	8.00	604.20	0.25
17	8.50	605.40	0.20
18	9.00	606.50	0.18
19	9.50	607.40	0.15
20	10.00	608.40	0.16
21	10.50	609.50	0.18
22	11.00	610.60	0.18

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(610.6 - 9.239019)(1)/(1) = +6.014E+02 g/L Carbon
(610.6 - 9.239019)(1)/(1)(12) = +5.011E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01738 DUP Date: 06/12/96 Time: 01:57:25

Sample Size = 1 uL .1159
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	2.30	0.00
2	1.00	132.70	98.27
3	1.50	430.80	69.20
4	2.00	880.10	51.05
5	2.50	1249.10	29.54
6	3.00	1423.40	12.25
7	3.50	1499.20	5.06
8	4.00	1550.00	3.28
9	4.50	1585.70	2.25
10	5.00	1609.10	1.45
11	5.50	1621.10	0.74
12	6.00	1628.40	0.45
13	6.50	1633.30	0.30
14	7.00	1637.20	0.24
15	7.50	1640.70	0.21
16	8.00	1643.10	0.15
17	8.50	1645.20	0.13
18	9.00	1646.90	0.10
19	9.50	1648.30	0.08
20	10.00	1649.70	0.08
21	10.50	1650.80	0.07
22	11.00	1651.90	0.07

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1651.9 - 35.75813)(1)/(1) = +1.6161E+03 g/L Carbon
(1651.9 - 35.75813)(1)/(1)(12) = +1.3468E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001739 Date: 06/12/96 Time: 02:11:18

Sample Size = 1 uL .1136
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	16.20	93.83
3	1.50	76.90	78.93
4	2.00	180.40	57.37
5	2.50	282.80	36.21
6	3.00	352.00	19.66
7	3.50	394.60	10.80
8	4.00	422.40	6.58
9	4.50	436.70	3.27
10	5.00	441.60	1.11
11	5.50	444.30	0.61
12	6.00	446.30	0.45
13	6.50	448.00	0.38
14	7.00	449.40	0.31
15	7.50	450.90	0.33
16	8.00	452.10	0.27
17	8.50	453.40	0.29
18	9.00	454.40	0.22
19	9.50	455.60	0.26
20	10.00	456.70	0.24
21	10.50	457.60	0.20
22	11.00	458.50	0.20

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(458.5 - 9.240558)(1)/(1) = +4.493E+02 g/L Carbon
(458.5 - 9.240558)(1)/(1)(12) = +3.744E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001739 Date: 06/12/96 Time: 02:23:52

Sample Size = 1 uL .1136g
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.90	0.00
2	1.01	81.30	97.66
3	1.51	304.90	73.34
4	2.00	660.00	53.80
5	2.51	891.30	25.95
6	3.01	995.40	10.46
7	3.51	1052.90	5.46
8	4.01	1093.20	3.69
9	4.50	1118.80	2.29
10	5.00	1134.10	1.35
11	5.50	1141.90	0.68
12	6.00	1147.20	0.46
13	6.50	1151.40	0.36
14	7.00	1154.90	0.30
15	7.50	1157.90	0.26
16	8.00	1160.00	0.18
17	8.50	1162.00	0.17
18	9.00	1163.50	0.13
19	9.50	1165.10	0.14
20	10.00	1166.20	0.09
21	10.50	1167.30	0.09
22	11.00	1168.30	0.09

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1168.3 - 35.75818)(1)/(1) = +1.1325E+03 g/L Carbon
(1168.3 - 35.75818)(1)/(1)(12) = +9.4378E+01 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01739 DUP Date: 06/12/96 Time: 02:36:41

Sample Size = 1 uL .1335g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.20	0.00
2	1.01	13.20	90.91
3	1.50	86.80	84.79
4	2.00	211.70	59.00
5	2.50	319.40	33.72
6	3.00	385.80	17.21
7	3.50	425.40	9.31
8	4.00	452.10	5.91
9	4.50	466.10	3.00
10	5.00	471.10	1.06
11	5.50	473.60	0.53
12	6.00	475.70	0.44
13	6.50	477.60	0.40
14	7.00	479.30	0.35
15	7.50	480.90	0.33
16	8.00	482.00	0.23
17	8.50	483.30	0.27
18	9.00	484.60	0.27
19	9.50	485.80	0.25
20	10.00	487.00	0.25
21	10.50	488.10	0.23
22	11.00	489.20	0.22

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(489.2 - 9.240563)(1)/(1) = +4.800E+02 g/L Carbon
(489.2 - 9.240563)(1)/(1)(12) = +4.000E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01739 DUP Date: 06/12/96 Time: 02:48:54

Sample Size = 1 uL .1335g
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.40	0.00
2	1.01	52.20	97.32
3	1.50	252.60	79.33
4	2.00	635.60	60.26
5	2.50	952.90	33.30
6	3.00	1079.90	11.76
7	3.50	1125.60	4.06
8	4.00	1155.00	2.55
9	4.50	1179.90	2.11
10	5.00	1199.50	1.63
11	5.50	1215.20	1.29
12	6.00	1250.50	2.82
13	6.50	1286.90	2.83
14	7.00	1308.40	1.64
15	7.50	1316.60	0.62
16	8.00	1320.10	0.27
17	8.50	1322.90	0.21
18	9.00	1325.40	0.19
19	9.50	1327.10	0.13
20	10.00	1328.60	0.11
21	10.50	1330.10	0.11
22	11.00	1331.20	0.08

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1331.2 - 35.74028)(1)/(1) = +1.2955E+03 g/L Carbon
(1331.2 - 35.74028)(1)/(1)(12) = +1.0795E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S06T001763 Date: 06/12/96 Time: 03:01:25

Sample Size = 1 uL .1467g
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.90	0.00
2	1.01	15.60	94.23
3	1.51	93.50	83.32
4	2.00	238.40	60.78
5	2.50	369.00	35.39
6	3.00	456.60	19.19
7	3.50	511.00	10.65
8	4.00	546.80	6.55
9	4.50	569.70	4.02
10	5.00	581.40	2.01
11	5.50	586.00	0.78
12	6.00	588.90	0.49
13	6.50	591.30	0.41
14	7.00	593.80	0.42
15	7.50	596.00	0.37
16	8.00	597.90	0.32
17	8.50	600.00	0.35
18	9.00	601.60	0.27
19	9.50	603.30	0.28
20	10.00	605.00	0.28
21	10.50	606.50	0.25
22	11.00	607.90	0.23

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(607.9 - 9.239731)(1)/(1) = +5.987E+02 g/L Carbon
(607.9 - 9.239731)(1)/(1)(12) = +4.989E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T001763 Date: 06/12/96 Time: 04:21:26

Sample Size = 1 uL .1467g
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	6.30	0.00
2	1.01	347.50	98.19
3	1.50	847.10	58.98
4	2.00	1398.70	39.44
5	2.50	1840.80	24.02
6	3.00	2051.00	10.25
7	3.51	2147.80	4.51
8	4.00	2211.60	2.88
9	4.50	2255.90	1.96
10	5.00	2288.80	1.44
11	5.50	2311.10	0.96
12	6.00	2324.90	0.59
13	6.50	2333.90	0.39
14	7.00	2340.40	0.28
15	7.50	2345.70	0.23
16	8.00	2349.90	0.18
17	8.50	2353.10	0.14
18	9.00	2355.80	0.11
19	9.50	2358.20	0.10
20	10.00	2360.20	0.08
21	10.50	2362.30	0.09
22	11.00	2363.40	0.05

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(2363.4 - 35.75541)(1)/(1) = +2.3276E+03 g/L Carbon
(2363.4 - 35.75541)(1)/(1)(12) = +1.9397E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01763 DUP Date: 06/12/96 Time: 04:35:33

Sample Size = 1 uL .1129
Dil Factor = 1
Blank ID # =
Blank Value = .84 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	9.00	100.00
3	1.50	57.00	84.21
4	2.00	142.10	59.89
5	2.50	236.60	39.94
6	3.00	304.50	22.30
7	3.50	350.00	13.00
8	4.00	381.30	8.21
9	4.50	401.80	5.10
10	5.00	411.80	2.43
11	5.50	415.40	0.87
12	6.00	417.80	0.57
13	6.50	419.60	0.43
14	7.00	421.50	0.45
15	7.50	422.90	0.33
16	8.00	424.40	0.35
17	8.50	425.70	0.31
18	9.00	427.00	0.30
19	9.50	428.20	0.28
20	10.00	429.30	0.26
21	10.50	430.50	0.28
22	11.00	431.40	0.21

USER INPUT BLANK VALUE
BLANK VALUE = 9.239077 micrograms carbon
BLANK FACTOR = 9.239077 / 10.9989 = +8.4E-01 ug/min Carbon

SAMPLE RESULTS:
(431.4 - 9.239)(1)/(1) = +4.222E+02 g/L Carbon
(431.4 - 9.239)(1)/(1)(12) = +3.518E+01 Molar Carbon

Sample Run By: _____
SL HOOD 00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

Sample: S96T01763 DUP Date: 06/12/96 Time: 04:47:48

Sample Size = 1 uL .11325
Dil Factor = 1
Blank ID # =
Blank Value = 3.25 ug/minute C

Analyst : SL HOOD
Min Readings = 22
Max Readings = 22
% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.80	0.00
2	1.01	142.90	98.74
3	1.51	550.70	74.05
4	2.01	1035.20	46.80
5	2.51	1435.90	27.91
6	3.01	1627.10	11.75
7	3.51	1715.90	5.18
8	4.01	1774.60	3.31
9	4.50	1817.10	2.34
10	5.00	1847.20	1.63
11	5.50	1868.30	1.13
12	6.00	1881.40	0.70
13	6.50	1890.00	0.46
14	7.00	1896.20	0.33
15	7.50	1900.80	0.24
16	8.00	1904.70	0.20
17	8.50	1907.80	0.16
18	9.00	1910.30	0.13
19	9.50	1912.40	0.11
20	10.00	1914.40	0.10
21	10.50	1916.00	0.08
22	11.00	1917.20	0.06

USER INPUT BLANK VALUE
BLANK VALUE = 35.74643 micrograms carbon
BLANK FACTOR = 35.74643 / 10.9989 = +3.3E+00 ug/min Carbon

SAMPLE RESULTS:
(1917.2 - 35.75536)(1)/(1) = +1.8814E+03 g/L Carbon
(1917.2 - 35.75536)(1)/(1)(12) = +1.5679E+02 Molar Carbon
<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!!>>>>

Sample Run By: _____
SL HOOD 00000

WORKBOOK PAGE: BLANK1

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Sample Type	Sample Size in g	(SS)	0.0000	0.0000
BLNK	Dilution Factor	(DF)	1	1
Work Plan	µg of Carbon in Sample	(C1)	9.1	34.7
7902	µg of Carbon from Baseline	(C2)	9.2	35.8

Test Code
@TICTOC1

Matrix
SOLID

Batch Number
96003737

Rerun
0

µg of Carbon = |C1-C2|

Sample Prep
N/A

Sample Id
BLNK

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
SLH

Date Completed
06/12/96

Analysis Date
06/12/96

Analysis Time

Sample Point
U-105

	TIC	TOC
Method Detection Limit in ug/g	5	40
ug of Carbon	1.00E-01	1.10E+00

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schwarz	Date:	6/12/96

BLANK.WB1 REV 1.0 342100ML

WORKBOOK PAGE: STD2

TIC/TOC : LA-342-100 (C-0) LIQUIDS

			TIC	TOC
Type	Sample Size in mL	(SS)	1.0000	0.2000
STD	Dilution Factor	(DF)	1	1
Work List	Final Coulometer Reading in µg	(C1)	580.3	595.8
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code	Standard Book Number		22N12B	24N12A
@TICTOC1	Standard Value (µg/ml)		602	3000

Matrix	LIQUID
Batch Number	96003737
Rerun	0
Sample Prep	N/A
Sample #	
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	SLH
Date Complete	06/12/96
Analysis Date	06/12/96
Analysis Time	
Sample Point	U-105

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	3.00E+03
QC Found in µg/mL	5.71E+02	2.80E+03
Percent Standard Recovery	94.9	93.3

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schroeder	Date:	6/12/96

STANDARD.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM3

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1604	0.1604
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	1604	2999.2
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96003737
Rerun	0
Sample Prep	N/A
Sample #	S96T001709
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	SLH
Date Complete	06/12/96
Analysis Date	06/12/96
Analysis Time	
Sample Point	U-105

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	9.94E+03	1.85E+04

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	Ru Schwerdt	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP4

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1472	0.1472
DUP	Dilution Factor	(DF)	1	1
Work	µg of Carbon in Sample	(C1)	1549.3	2935.7
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code	Known µg of C from Original Sample		9.94E+3	1.85E+4
@TICTOC1				

Matrix: SOLID

Batch Number: 96003737

Rerun: 0

Sample Prep: N/A

Sample #: S96T001709

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: SLH

Date Complete: 06/12/96

Analysis Date: 06/12/96

Analysis Time:

Sample Point: U-105

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	1.05E+04	1.97E+04
RPD (of Sam and Dup Results)	~~5.1%~~ 5.5	6.3%

RW Schroeder 6/12/96

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schroeder	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SPIKE5

TIC/TOC : LA-342-100 (C-0) SOLIDS

Type	Sample Vial Data		TIC	TOC
SPK	Sample Size in g	(SS)	0.1604	0.1604
Work List	Final Coulometer Reading in µg	(C1)	1604	2999.2
7902	**Spiked Vial Data**			
Test Code	Sample Size in g	(SPK SS)	0.1574	0.1574
@TICTOC1	Amount of Spike Std. in mL	(SPK VOL)	0.500	0.100
Matrix	Final Coulometer Reading in µg	(C3)	1912.3	3468.2
SOLID	Spike Book Number		22N12B	24N12A
Batch Number	Spike Standard Value in µg/ml		602	3000
96003737	Spike Concentration in µg	(SPK CONC)	301	300
Rerun				
0				
Sample Prep				
N/A				
Sample Date				
S96T001709				
Instrument Code				
CARB2				
Prepared By				
RTS				
Chemist				
RWS				
Analyst				
SLH				
Date Complete				
06/12/96				
Analysis Date				
06/12/96				
Analysis Time				
			TIC	TOC
	QC Actual in µg/mL		6.02E+02	3.00E+03
Sample Point	QC Found in µg/mL		6.14E+02	3.21E+03
U-105	Percent Spike Recovery		102.0	106.9

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

RW Schnell 6/12/96

WORKBOOK PAGE: SAM6

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1079	0.1079
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	591.1	1558.6
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96003737
Rerun	0
Sample Prep	N/A
Sample #	S96T001738
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	SLH
Date Complete	06/12/96
Analysis Date	06/12/96
Analysis Time	
Sample Point	U-105

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	5.39E+03	1.41E+04

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schroeder	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP7

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1151	0.1151
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	610	1651.9
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code	Known µg of C from Original Sample		5.39E+3	1.41E+4
@TICTOC1				

Matrix	SOLID
Batch Number	96003737
Rerun #	0
Sample Prep	N/A
Sample #	S96T001738
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	SLH
Date Complete	06/12/96
Analysis Date	06/12/96
Analysis Time	
Sample Point	U-105

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	5.22E+03	1.40E+04
RPD (of Sam and Dup Results)	3.2%	0.4%

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schroeder	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM8

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1136	0.1136
SAMPLE	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	458.5	1168.3
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code				
@TICTOC1				

Matrix	SOLID
Batch Number	96003738
Rerun	0
Sample Prep	N/A
Sample	S96T001739
Instrument Code	CARB2
Prepared By	RTS
Chemist	RWS
Analyst	SLH
Date Complete	06/12/96
Analysis Date	06/12/96
Analysis Time	
Sample Point	U-105

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	3.96E+03	9.97E+03

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schwendiman	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP9

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1335	0.1335
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	498.2	1331.2
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code	Known µg of C from Original Sample		3.96E+3	9.97E+3
@TICTOC1				

Matrix: SOLID

Batch Number: 96003738

Rerun: 0

Sample Prep: N/A

Sample Id: S96T001739

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: SLH

Date Complete: 06/12/96

Analysis Date: 06/12/96

Analysis Time:

Sample Point: U-105

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	3.66E+03	9.70E+03
RPD (of Sam and Dup Results)	7.8%	2.7%

Data Entered By: RTS Date: 06/12/96

Signature of Chemist: RW Schroeder Date: 6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: SAM10

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1467	0.1467
SAMPLE	Dilution Factor	(DF)	1	1
Worklist	µg of Carbon in Sample	(C1)	607.9	2363.4
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code				
@TICTOC1				

Matrix
SOLID

Batch Number
96003738

Rerun
0

Sample Prep
N/A

Sample ID
S96T001763

Instrument Code
CARB2

Prepared By
RTS

Chemist
RWS

Analyst
SLH

Date Complete
06/12/96

Analysis Date
06/12/96

Analysis Time

Sample Point
U-105

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	4.08E+03	1.59E+04

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	RW Schmeel	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

WORKBOOK PAGE: DUP11

TIC/TOC : LA-342-100 (C-0) SOLIDS

			TIC	TOC
Type	Sample Size in g	(SS)	0.1132	0.1132
DUP	Dilution Factor	(DF)	1	1
Work List	µg of Carbon in Sample	(C1)	431.4	1917.2
7902	µg of Carbon from Baseline	(C2)	9.2	35.8
Test Code	Known µg of C from Original Sample		4.08E+3	1.59E+4
@TICTOC1				

Matrix: SOLID

Batch Number: 96003738

Rerun: 0

Sample Prep: N/A

Sample: S96T001763

Instrument Code: CARB2

Prepared By: RTS

Chemist: RWS

Analyst: SLH

Date Complete: 06/12/96

Analysis Date: 06/12/96

Analysis Time:

Sample Point: U-105

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	3.73E+03	1.66E+04
RPD (of Sam and Dup Results)	9.0%	~~4.4%~~ 4.5

RWS 6/12/96

Data Entered By:	RTS	Date:	06/12/96
Signature of Chemist:	Rex Schroeder	Date:	6/12/96

SAMPLE.WB1 REV 1.0 342100ML

LABCORE Data Entry Template for Worklist# 9593

Analyst: _____ **Instrument:** CARB2 _____ **Book#** _____

Method: LA-342-100 Rev/Mod D-D

Worklist Comment: U-105 TICTOC RERUN. RCJ

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	BLNK				@TICTOC1	SOLID		
2	STD				@TICTOC1	SOLID		
3	SAMPLE	S96T000859	0		@TICTOC1	SOLID	96000092	U-105 (R)
		Analytes Requested: TIC-02 , TOC-02						
4	DUP	S96T000859	0		@TICTOC1	SOLID		
5	TRIPL	S96T000859	0		@TICTOC1	SOLID		
6	SAMPLE	S96T001284	0		@TICTOC1	SOLID	96000143	U-105 (R)
		Analytes Requested: TIC-02 , TOC-02						
7	DUP	S96T001284	0		@TICTOC1	SOLID		
8	SPK	S96T001284	0		@TICTOC1	SOLID		

Final page for worklist # 9593

SOP ATTACHED FOR SIGNATURES
Analyst Signature **Date** 6-10-96

[signature] 6-10-96
Analyst Signature **Date**

Data Entry Comments:

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