



COMMONWEALTH of VIRGINIA
DEPARTMENT OF FORENSIC SCIENCE

CENTRAL LABORATORY
A Nationally Accredited Laboratory

700 NORTH 5TH STREET
RICHMOND, VIRGINIA 23219
(804) 786-6971

CERTIFICATE OF INSTRUMENT ACCURACY

INSTRUMENT: Intox EC/IR II
SERIAL NUMBER: 010465
CERTIFICATION DATE: March 28, 2014
DATE RECERTIFICATION DUE: September 24, 2014

The above listed instrument was found to meet all requirements for accuracy and performance established by the Department of Forensic Science as required by §9.1-1101 (B)(3). Measurement traceability is established through the use of reference materials supplied by an ISO/IEC 17025:2005 accredited calibration laboratory.

Estimation of Uncertainty of Measurement:

0.020 ± 0.004 g/210 L 0.150 ± 0.007 g/210 L
0.080 ± 0.004 g/210 L 0.250 ± 0.007 g/210 L

The Uncertainty of Measurement is reported at the 99.73% level of confidence and a coverage factor of k=3. The estimation of the Uncertainty of Measurement is calculated for the Certification process only.

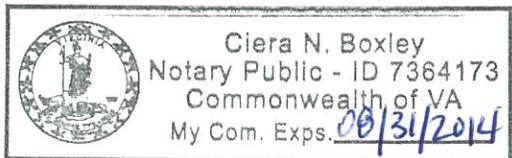
[Signature]
Sarah E. Dersch
Forensic Scientist

CITY OF RICHMOND
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 7th day of April, 2014 by Sarah E. Dersch

[Signature: Ciera N. Boxley]
Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014



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**Department of Forensic Science  
Breath Alcohol Section  
Instrument Maintenance History  
1/1/1990 To 3/28/2014**

**Instrument Serial Number: 010465**

**As of 28-Mar-14**

<b>Maintenance Date</b>	<b>Certification Date</b>	<b>Technician Initials</b>	<b>Remarks</b>
28-Mar-14	28-Mar-14	DBH (21250)	CERTIFIED.
02-Oct-13	02-Oct-13	DBH (21250)	CERTIFIED.
09-Sep-13	09-Sep-13	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED, REPLACED DRY GAS STANDARD.
17-Apr-13	17-Apr-13	DBH (21250)	CERTIFIED.
04-Dec-12	04-Dec-12	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED. REPLACED DRY GAS STANDARD.
24-May-12	24-May-12	DBH (21250)	CERTIFIED
11-May-12	07-Dec-11	DBH (21250)	REPLACED DRY GAS STANDARD.
07-Dec-11	07-Dec-11	DBH (21250)	CERTIFIED, REPLACED DRY GAS STANDARD.
22-Nov-11	20-Jun-11	SED (24178)	REESTABLISHED PROPER PHONE LINE CONNECTION.
20-Jun-11	20-Jun-11	DBH (21250)	REPLACED DRY GAS STANDARD, CERTIFIED
30-Dec-10	30-Dec-10	DBH (21250)	REPLACED PRINTER RIBBON, REPLACED DRY GAS STANDARD, CERTIFIED
19-Jul-10	19-Jul-10	DBH (21250)	CERTIFIED
11-Jun-10	23-Feb-10	DBH (21250)	REPLACED DRY GAS STANDARD
09-Apr-10	23-Feb-10	DBH (21250)	MOVED INSTRUMENT TO A DIFFERENT LOCATION IN THE ROOM
23-Feb-10	23-Feb-10	DBH (21250)	CERTIFIED
10-Nov-09	10-Nov-09	NMJ (22392)	REPLACED TANK TOP LID, CERTIFIED.
10-Apr-09	10-Apr-09	RJP (22428)	FIRMWARE/SOFTWARE UPGRADE. CALIBRATED AND CERTIFIED.
18-Nov-08	18-Nov-08	RJP (22428)	CERTIFIED.
23-Oct-08	23-Oct-08	NMJ (22392)	CALIBRATED, CERTIFIED AND ACCEPTED.

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# INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010465** Worksheet Start Date **3/28/2014**  
 Location **DFS-Central**  
 Address **[Redacted]**  
 DFS Technician **Donald Hall** License No. **21250**  
 Laboratory  On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **761** Reference Barometer (mm HG) **761**  
 Reference Barometer(RB)Serial # **009109** RB Calibration Due **8/1/2014**

### Measurement Assurance Check

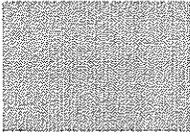
Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.300	0.300	0.291	0.309	0.305	0.305	0.305
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.305	0.305			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.100	0.100	0.097	0.103	0.100	0.100	0.100
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.100	0.100			

Dry gas standard Lot No. (with tank no.) **AG209402-57**

- Replaced dry gas standard (+O-ring)
- Installed at Location
- Removed to DFS-Central

- Supplies
- Mouthpieces
- Certificates of Analysis
- Operator Worksheet
- Other:



Notes:

[Redacted Notes Area]

Instrument Serial Number

010465

Certification Date

3/28/2014

Calibrated

Certified

Measurement Assurance Check

Instrument Test

Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.250	0.250	0.242	0.257	0.250	0.249	0.249
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0.001		0.249	0.250			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.150	0.150	0.145	0.154	0.150	0.150	0.150
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.150	0.150			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.080	0.080	0.077	0.083	0.081	0.081	0.081
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.081	0.081			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.020	0.020	0.017	0.023	0.019	0.019	0.019
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.019	0.019			

All measurements are in g/210L

Estimation of Uncertainty of Measurement and traceability records are located within the Breath Alcohol Section

DFS Technician

*Donald B Hall*

Date

*3/28/14*

Issuing Analyst

*mx [Signature]*

Date

*4/1/14*

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**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010465      Test Number: 2640  
Test Date: 03/28/2014      Test Time: 10:49 EDT

Technician Initials: DBH

Dry Gas Target: 0.250

Lot Number: 2961225012-09      Exp Date: 11/01/2014

Tank Pressure: 286 psi      Barometric Pressure: 761 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	10:49
BLK	0.000	10:50
CHK	0.250	10:51
BLK	0.000	10:53
CHK	0.249	10:54
BLK	0.000	10:55
CHK	0.249	10:56
BLK	0.000	10:58

**Success**

Standard Value (at sea level): 0.250 g/210L

Certification Status: Continued

DBH

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**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010465      Test Number: 2641  
Test Date: 03/28/2014      Test Time: 11:01 EDT

Technician Initials: DBH

Dry Gas Target: 0.150

Lot Number: 2951215012-04      Exp Date: 11/01/2014

Tank Pressure: 801 psi      Barometric Pressure: 760 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	11:01
BLK	0.000	11:02
CHK	0.150	11:03
BLK	0.000	11:04
CHK	0.150	11:05
BLK	0.000	11:06
CHK	0.150	11:08
BLK	0.000	11:09

**Success**

Standard Value (at sea level): 0.150 g/210L

Certification Status: Continued

DBH  
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**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010465      Test Number: 2642  
Test Date: 03/28/2014      Test Time: 11:13 EDT

Technician Initials: DBH

Dry Gas Target: 0.080

Lot Number: 0771308012-01      Exp Date: 05/01/2015

Tank Pressure: 311 psi      Barometric Pressure: 760 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	11:13
BLK	0.000	11:14
CHK	0.081	11:14
BLK	0.000	11:16
CHK	0.081	11:17
BLK	0.000	11:18
CHK	0.081	11:19
BLK	0.000	11:20

**Success**

Standard Value (at sea level): 0.080 g/210L

Certification Status: Continued

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**Intox EC/IR-II: Certification**

*Department of Forensic Science*  
Serial Number: 010465      Test Number: 2643  
Test Date: 03/28/2014      Test Time: 11:24 EDT

Technician Initials: DBH  
Dry Gas Target: 0.020  
Lot Number: 0771302011-02      Exp Date: 05/01/2015  
Tank Pressure: 355 psi      Barometric Pressure: 760 mmHg  
System Check: Passed

Test	g/210L	Time
DIAG	Pass	11:24
BLK	0.000	11:25
CHK	0.019	11:26
BLK	0.000	11:27
CHK	0.019	11:28
BLK	0.000	11:29
CHK	0.019	11:30
BLK	0.000	11:31

**Success**

Standard Value (at sea level): 0.020 g/210L

Certification Status: Success

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**Intox EC/IR-II: Accuracy Check**

*Department of Forensic Science*

Serial Number: 010465      Test Number: 2644

Test Date: 03/28/2014      Test Time: 11:36 EDT

Dry Gas Target: 0.300

Lot Number: AG322702-06      Exp Date: 08/15/2015

Tank Pressure: 174 psi      Barometric Pressure: 760 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	11:37
CHK	0.305	11:38
BLK	0.000	11:40
CHK	0.305	11:41
BLK	0.000	11:42
CHK	0.305	11:43

Test Status: *Success*

Calibration CRC: FC317593

**Intox EC/IR-II: Accuracy Check***Department of Forensic Science*

Serial Number: 010465      Test Number: 2645  
Test Date: 03/28/2014      Test Time: 11:47 EDT  
Dry Gas Target: 0.100

Lot Number: AG209402-57      Exp Date: 04/03/2014  
Tank Pressure: 507 psi      Barometric Pressure: 760 mmHg  
System Check: *Passed*

Test	g/210L	Time
BLK	0.000	11:47
CHK	0.100	11:48
BLK	0.000	11:50
CHK	0.100	11:51
BLK	0.000	11:52
CHK	0.100	11:53

Test Status: *Success*

Calibration CRC: FC317593

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INSTRUMENT, TEST,

DFS

HALL, DONALD, B

DFS Central Lab

21250

10/01/2014

03/28/2014

010465

03/28/2014

12:02 EDT

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