



# 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: 010558

CERTIFICATION DATE: January 29, 2014

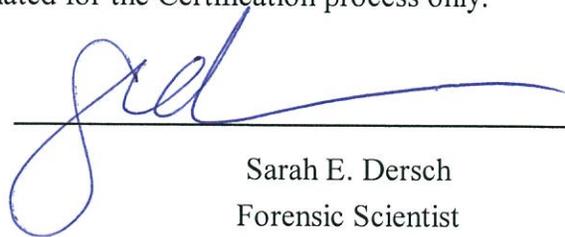
DATE RECERTIFICATION DUE: July 28, 2014

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.




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Sarah E. Dersch  
Forensic Scientist

CITY OF RICHMOND  
COMMONWEALTH OF VIRGINIA

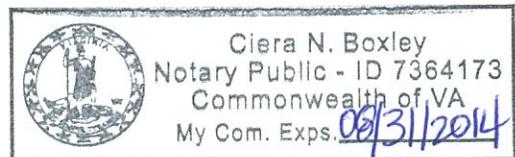
The foregoing was acknowledged before me this 18th day of February, 2014 by Sarah E. Dersch

Ciera N. Boxley

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Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014



*nsk*

*jad*

**Department of Forensic Science  
Breath Alcohol Section  
Instrument Maintenance History  
1/1/1990 To 2/3/2014**

**Instrument Serial Number: 010558**

**As of 03-Feb-14**

<b>Maintenance Date</b>	<b>Certification Date</b>	<b>Technician Initials</b>	<b>Remarks</b>
29-Jan-14	29-Jan-14	SED (24178)	CERTIFIED.
14-Aug-13	14-Aug-13	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE. CALIBRATED AND CERTIFIED.
27-Feb-13	27-Feb-13	TLN (25387)	CERTIFIED. REPLACED DRY GAS STANDARD.
06-Sep-12	06-Sep-12	HMS (18910)	CERTIFIED
21-Mar-12	21-Mar-12	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
13-Oct-11	13-Oct-11	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
04-May-11	04-May-11	HMS (18910)	CERTIFIED
16-Feb-11	22-Nov-10	HMS (18910)	RESET PRINTER.
22-Nov-10	22-Nov-10	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
09-Sep-10	16-Jun-10	HMS (18910)	REPLACED DRY GAS STANDARD.
16-Jun-10	16-Jun-10	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
07-May-10	28-Dec-09	HMS (18910)	REPLACED DRY GAS STANDARD.
28-Dec-09	28-Dec-09	NMJ (22392)	CERTIFIED
15-Jul-09	15-Jul-09	HMS (18910)	CERTIFIED.
28-May-09	15-Apr-09	HMS (18910)	REMOVED PAPER JAM IN GEAR OF PRINTER.
15-Apr-09	15-Apr-09	HMS (18910)	CERTIFIED.
01-Apr-09	01-Apr-09	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE, CERTIFIED.
13-Feb-09	13-Feb-09	NMJ (22392)	CALIBRATED, CERTIFIED AND ACCEPTED.

sd

# INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010558** Worksheet Start Date **1/29/2014**  
 Location **Leesburg PD**  
 Address **65 Plaza St NE Leesburg, VA 20176**  
 DFS Technician **Sarah Dersch** License No. **24178**

Laboratory  On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **767** Reference Barometer (mm HG) **761**  
 Reference Barometer(RB)Serial # **009111** RB Calibration Due **5/23/2014**

### Measurement Assurance Check

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.304
0.300	0.302	0.292	0.311	<b>Sample 2</b>	0.304
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.304
0		0.304	0.304		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.102
0.100	0.101	0.097	0.104	<b>Sample 2</b>	0.101
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.101
0.001		0.101	0.102		

Dry gas standard Lot No. (with tank no.) **AG227501-26**

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

Supplies  
 Mouthpieces **75**  
 Certificates of Analysis **50**  
 Operator Worksheet **50**  
 Other:

Notes:

[Dotted grid area for notes]

Instrument Serial Number

010558

Certification Date

1/29/2014

Calibrated

Certified

Measurement Assurance Check

Instrument Test

Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.252
0.250	0.252	0.244	0.259	<b>Sample 2</b>	0.252
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.252
0		0.252	0.252		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.151
0.150	0.151	0.146	0.155	<b>Sample 2</b>	0.151
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.151
0		0.151	0.151		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.081
0.080	0.081	0.078	0.084	<b>Sample 2</b>	0.081
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	<del>0.081</del> 0.080
0.001		0.080	0.081		2/7/14 sd

*Handwritten notes: 2/7/14 sd, 0.001, 0.080, 0.081*

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.019
0.020	0.020	0.017	0.023	<b>Sample 2</b>	0.020
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.020
0.001		0.019	0.020		

All measurements are in g/210L

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

DFS Technician

*sd*

Date

2/3/14 2/7/14  
*sd*

Issuing Analyst

*sd*  
*msk*

Date

2/3/14 2/7/14

sid

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

*Department of Forensic Science*

Serial Number: 010558      Test Number: 1249  
Test Date: 01/29/2014      Test Time: 13:20 EST

Technician Initials: SED

Dry Gas Target: 0.252

Lot Number: 0651225015-02      Exp Date: 04/01/2014

Tank Pressure: 350 psi      Barometric Pressure: 767 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	13:21
BLK	0.000	13:21
CHK	0.252	13:22
BLK	0.000	13:24
CHK	0.252	13:25
BLK	0.000	13:26
CHK	0.252	13:27
BLK	0.000	13:29

**Success**

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

Certification Status: Continued

sid

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

*Department of Forensic Science*

Serial Number: 010558      Test Number: 1250  
Test Date: 01/29/2014      Test Time: 13:34 EST

Technician Initials: SED

Dry Gas Target: 0.151

Lot Number: 0651215014-04      Exp Date: 04/01/2014

Tank Pressure: 811 psi      Barometric Pressure: 766 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	13:35
BLK	0.000	13:35
CHK	0.151	13:36
BLK	0.000	13:38
CHK	0.151	13:38
BLK	0.000	13:40
CHK	0.151	13:41
BLK	0.000	13:42

**Success**

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

Certification Status: Continued

sed

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010558      Test Number: 1251  
Test Date: 01/29/2014      Test Time: 13:44 EST

Technician Initials: SED

Dry Gas Target: 0.081

Lot Number: 06512080I2-01      Exp Date: 04/01/2014

Tank Pressure: 933 psi      Barometric Pressure: 766 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	13:45
BLK	0.000	13:46
CHK	0.081	13:46
BLK	0.000	13:48
CHK	0.081	13:48
BLK	0.000	13:50
CHK	0.080	13:51
BLK	0.000	13:52

Success

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

Certification Status: Continued

Intox EC/IR-II: Certification

*sed*

Department of Forensic Science

Serial Number: 010558      Test Number: 1252  
Test Date: 01/29/2014      Test Time: 13:54 EST

Technician Initials: SED

Dry Gas Target: 0.020

Lot Number: 0651202011-07      Exp Date: 04/01/2014

Tank Pressure: 66 psi      Barometric Pressure: 766 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	13:54
BLK	0.000	13:55
CHK	0.019	13:56
BLK	0.000	13:57
CHK	0.020	13:58
BLK	0.000	13:59
CHK	0.020	14:00
BLK	0.000	14:01

Success

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

Certification Status: Success

*Siel*

Intox EC/IR-11: Accuracy Check

*Department of Forensic Science*

Serial Number: 010558      Test Number: 1253  
Test Date: 01/29/2014      Test Time: 14:05 EST  
Dry Gas Target: 0.302

Lot Number: AG321804-04      Exp Date: 08/06/2015  
Tank Pressure: 389 psi      Barometric Pressure: 766 mmHg  
System Check: *Passed*

Test	g/210L	Time
BLK	0.000	14:06
CHK	0.304	14:06
BLK	0.000	14:08
CHK	0.304	14:09
BLK	0.000	14:11
CHK	0.304	14:12

Test Status: *Success*

Calibration CRC: F586259E

Intox EC/IR-II: Accuracy Check

8d

*Department of Forensic Science*

Serial Number: 010558      Test Number: 1254  
Test Date: 01/29/2014      Test Time: 14:14 EST  
                                 Dry Gas Target: 0.101  
Lot Number: AG227501-26      Exp Date: 10/01/2014  
Tank Pressure: 370 psi      Barometric Pressure: 766 mmHg  
                                 System Check: *Passed*

Test	g/210L	Time
BLK	0.000	14:15
CHK	0.102	14:16
BLK	0.000	14:17
CHK	0.101	14:18
BLK	0.000	14:19
CHK	0.101	14:20

Test Status: *Success*

Calibration CRC: F586259E

Sed



COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF FORENSIC SCIENCE

CERTIFICATE OF BLOOD ALCOHOL ANALYSIS  
AS DETERMINED BY A CHEMICAL TEST OF THE ACCUSED'S BREATH

NAME OF ACCUSED  INSTRUMENT, TEST,	NAME OF COURT  DFS
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BREATH ANALYSIS

SAMPLE EXAMINED AND TEST CONDUCTED BY  DERSCH, SARAH, E		AGENCY  DFS Central Lab
DFS LICENSE NUMBER  24178	LICENSE EXPIRES  10/01/2014	DATE TEST CONDUCTED  01/29/2014
TEST EQUIPMENT NUMBER  010558		

RESULTS: TIME SAMPLE TAKEN 14:29 EST

SAMPLE'S ALCOHOL CONTENT 0.00 GRAMS PER 210 LITERS OF BREATH

ATTEST:

I CERTIFY THAT THE ABOVE IS AN ACCURATE RECORD OF THE TEST CONDUCTED; THAT THE TEST WAS CONDUCTED WITH THE TYPE OF EQUIPMENT AND IN ACCORDANCE WITH THE METHODS APPROVED BY THE DEPARTMENT OF FORENSIC SCIENCE; THAT THE TEST WAS CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S SPECIFICATIONS; THAT PRIOR TO ADMINISTRATION OF THE TEST THE ACCUSED WAS ADVISED OF HIS RIGHT TO OBSERVE THE PROCESS AND SEE THE BLOOD ALCOHOL READING ON THE EQUIPMENT USED TO PERFORM THE BREATH TEST, AND THAT I POSSESS A VALID LICENSE TO CONDUCT SUCH TEST, GIVEN UNDER MY HAND THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_.

BREATH TEST OPERATOR
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I HAVE RECEIVED A COPY OF THIS CERTIFICATE OF ANALYSIS \_\_\_\_\_ SUBJECT'S SIGNATURE

SUBJECT REFUSED TO SIGN FOR COPY OF CERTIFICATE OF ANALYSIS \_\_\_\_\_ OPERATOR'S SIGNATURE

FOR COURT