



**WOOD BUFFALO  
ENVIRONMENTAL ASSOCIATION**

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Wood Buffalo Environmental Association

# MAY 2026

# MONTHLY CALIBRATION REPORT

CONTINUOUS MONITORING

June 30, 2026

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association





## **WOOD BUFFALO ENVIRONMENTAL ASSOCIATION**

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS01 BERTHA GANTER - FORT MCKAY MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number: AMS 01
Calibration Date:	May 19, 2026	Last Cal Date: April 17, 2026
Start time (MST):	9:47	End time (MST): 13:52
Reason:	Routine	

### Calibration Standards

Cal Gas Concentration:	49.21	ppm	Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #:	CC418809		
Removed Cal Gas Conc:	49.21	ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA		Diff between cyl:
Calibrator Model:	Teledyne API T700		Serial Number: 3565
Zero Air Gen Model:	Teledyne API T701		Serial Number: 146

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number: JC1501301448
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001280	1.001108	Backgd or Offset:	21.3	22.8
Calibration intercept:	0.706701	-0.633098	Coeff or Slope:	0.875	0.865

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	1.2	----
As found High point	4918	81.3	800.3	810.7	0.989
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	809.5	Previous response	802.0	*% change	0.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4918	81.3	800.3	801.0	0.999
Mid point	4959	40.7	400.6	399.4	1.003
Low point	4979	20.3	199.8	199.5	1.002
As left zero	5000	0.0	0.0	-0.3	----
As left span	4918	81.3	800.3	800.7	0.999
Average Correction Factor:					1.001

Notes: Changed the sample inlet filter after as founds. Adjusted zero & span.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

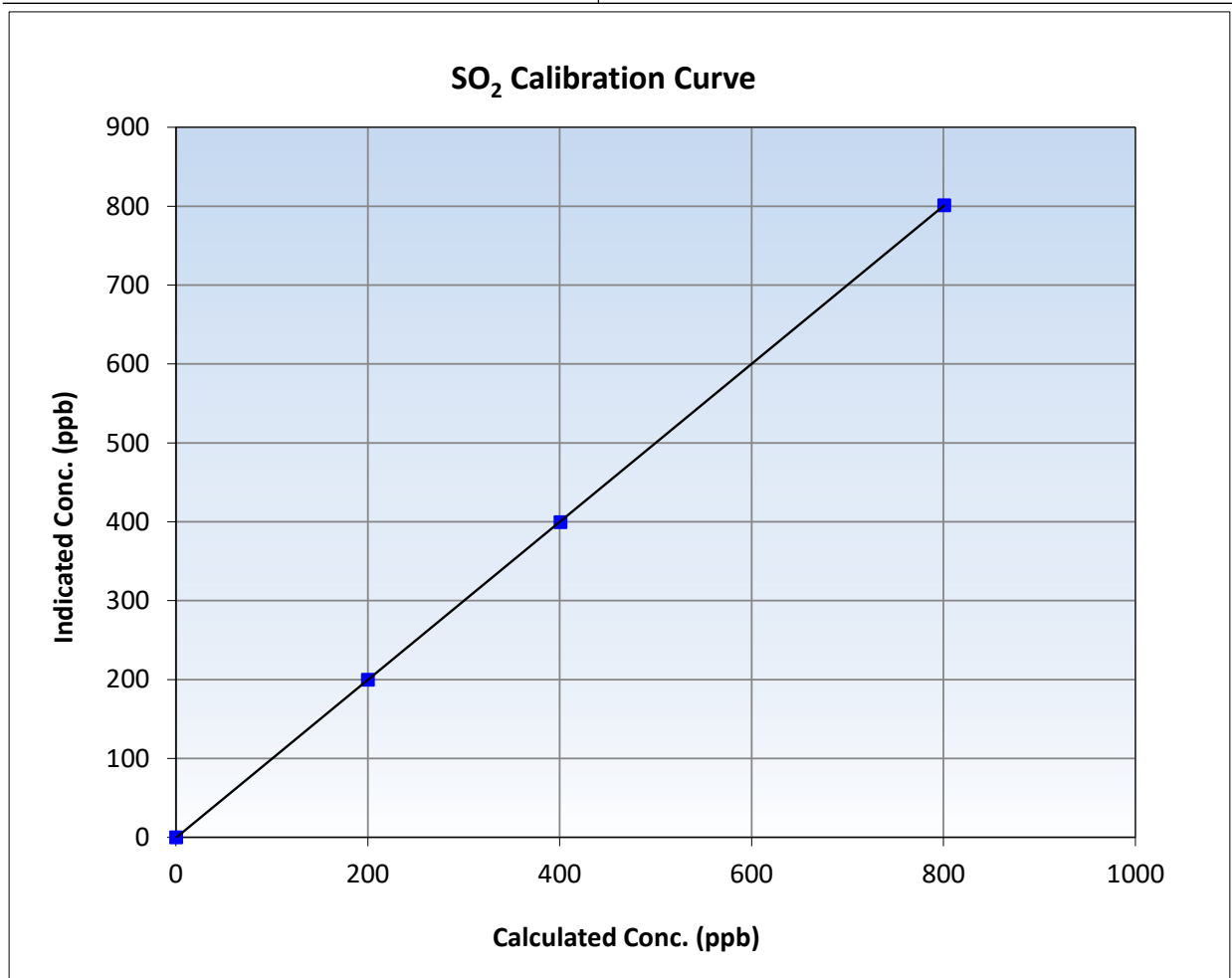
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:47	End Time (MST):	13:52
Analyzer make:	Thermo 43i	Analyzer serial #:	JC1501301448

### Calibration Data

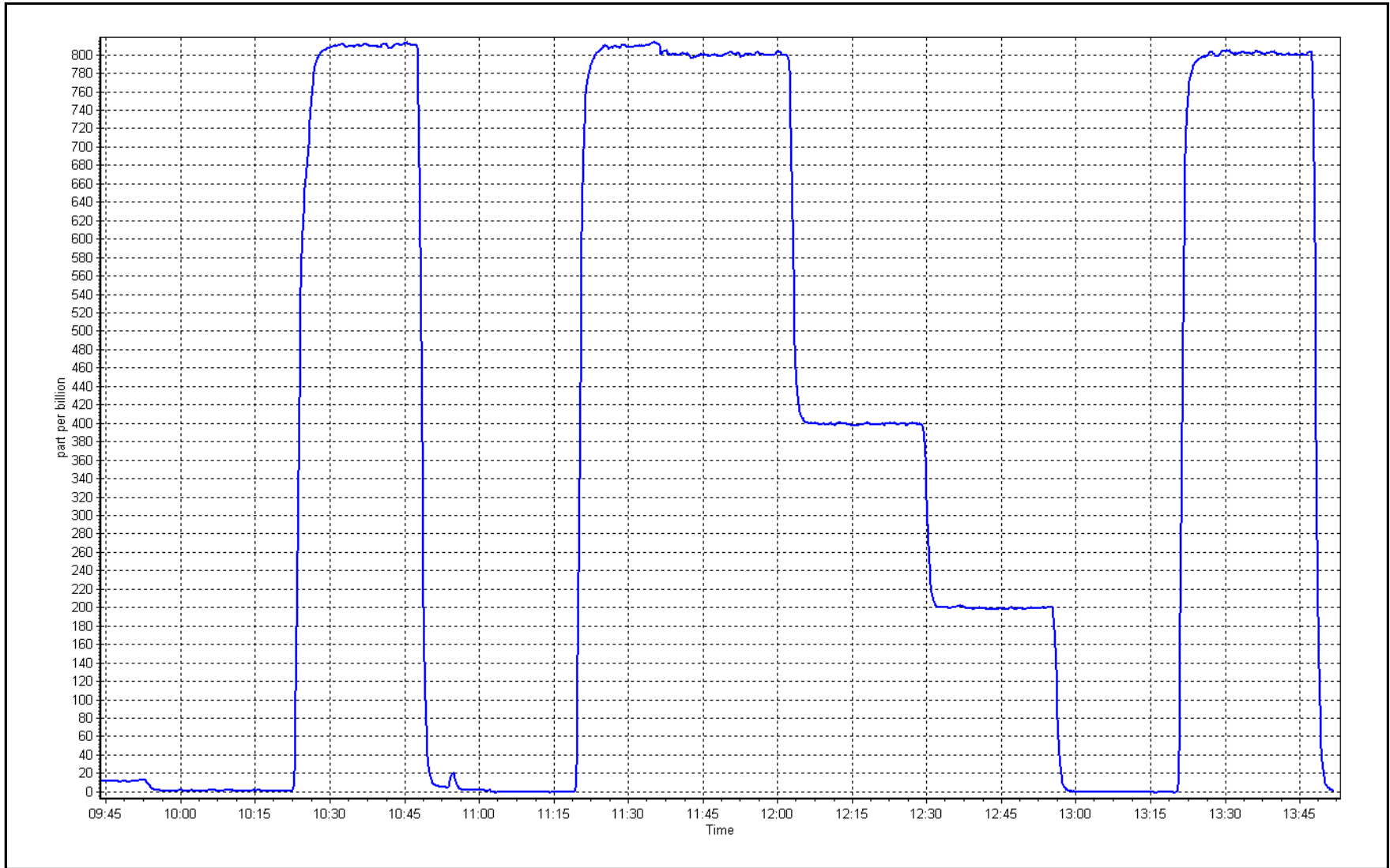
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	-0.2	----	Correlation Coefficient	0.999996	<b>≥0.995</b>
800.3	801.0	0.9991	Slope	1.001108	<b>0.90 - 1.10</b>
400.6	399.4	1.0030	Intercept	-0.633098	<b>+/-30</b>
199.8	199.5	1.0016			



SO2 Calibration Plot

Date: May 19, 2026

Location: Bertha Ganter-Fort McKay





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number:	AMS 01
Calibration Date:	May 6, 2026	Last Cal Date:	April 16, 2026
Start time (MST):	9:27	End time (MST):	13:50
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.84	ppm	Cal Gas Exp Date:	September 5, 2027
Cal Gas Cylinder #:	CC738239			
Removed Cal Gas Conc:	4.84	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	3565
ZAG Make/Model:	Teledyne API T701		Serial Number:	146

### Analyzer Information

Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	12113311966
Converter make:	CD Nova	Converter serial #:	580
Analyzer Range	0 - 100 ppb	Converter Temp:	850 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999384	1.011536	Backgd or Offset:	2.11	2.11
Calibration intercept:	-0.197953	-0.198204	Coeff or Slope:	1.112	1.112

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4917	82.6	80.0	80.1	0.996
As found Mid point	4959	41.3	40.0	40.3	0.987
As found Low point	4979	20.7	20.0	20.2	0.982
New cylinder response					
Baseline Corr As found:	80.3	Prev response:	79.72	*% change:	0.7%
Baseline Corr 2nd AF pt:	40.5	AF Slope:	1.003534	AF Intercept:	-0.018187
Baseline Corr 3rd AF pt:	20.4	AF Correlation:	0.999971	* = +/-5% change initiates investigation	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4917	82.6	80.0	80.7	0.991
Mid point	4959	41.3	40.0	40.3	0.992
Low point	4979	20.7	20.0	19.9	1.007
As left zero	5000	0.0	0.0	0.0	----
As left span	4917	82.6	80.0	80.3	0.996
SO2 Scrubber Check	4919	81.3	813.0	0.2	----
Date of last scrubber change:	December 17, 2021			Ave Corr Factor	0.997
Date of last converter efficiency test:					

Notes: Inlet filter change completed after as founds. No adjustments made. Scrubber check passed.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

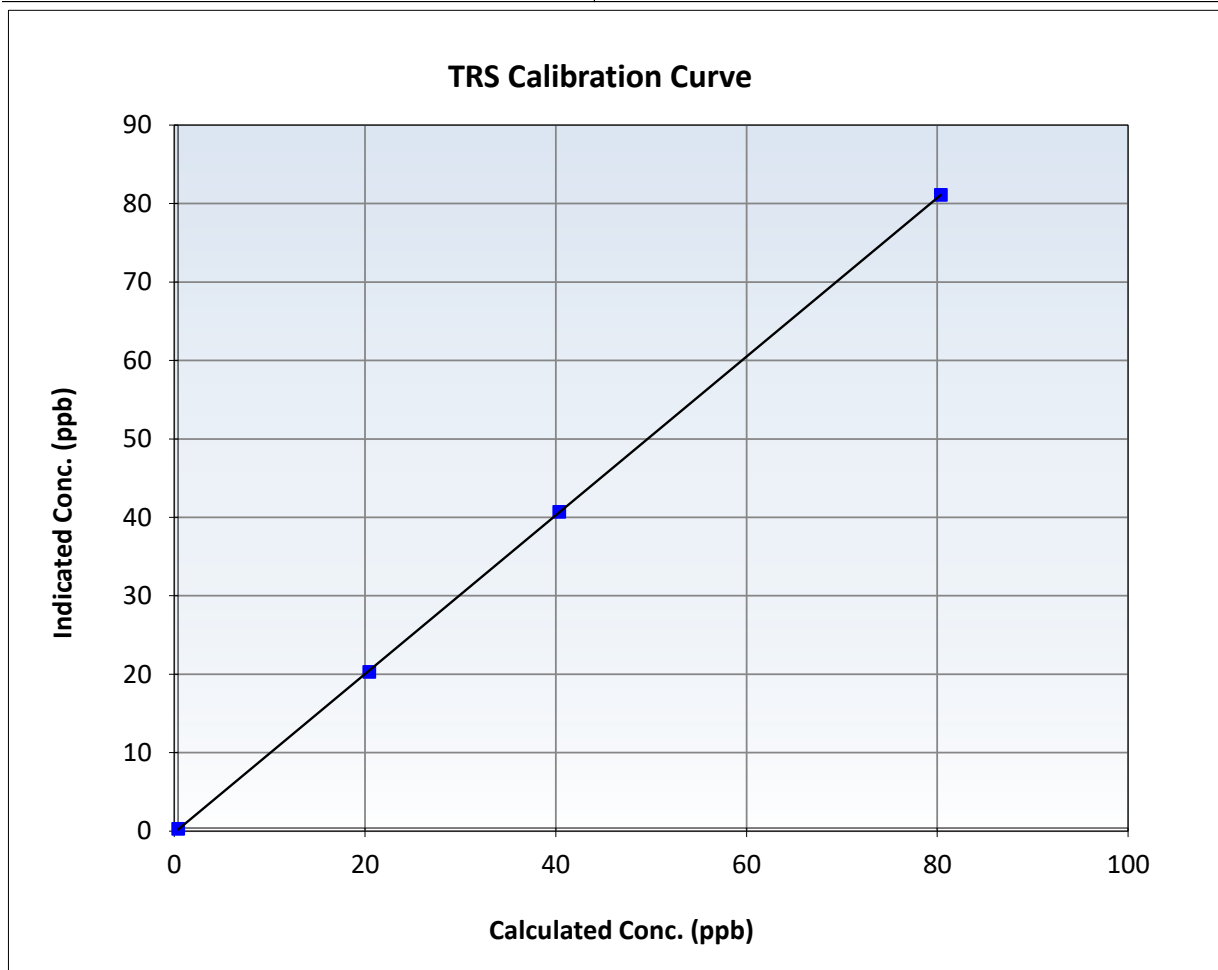
## TRS Calibration Summary

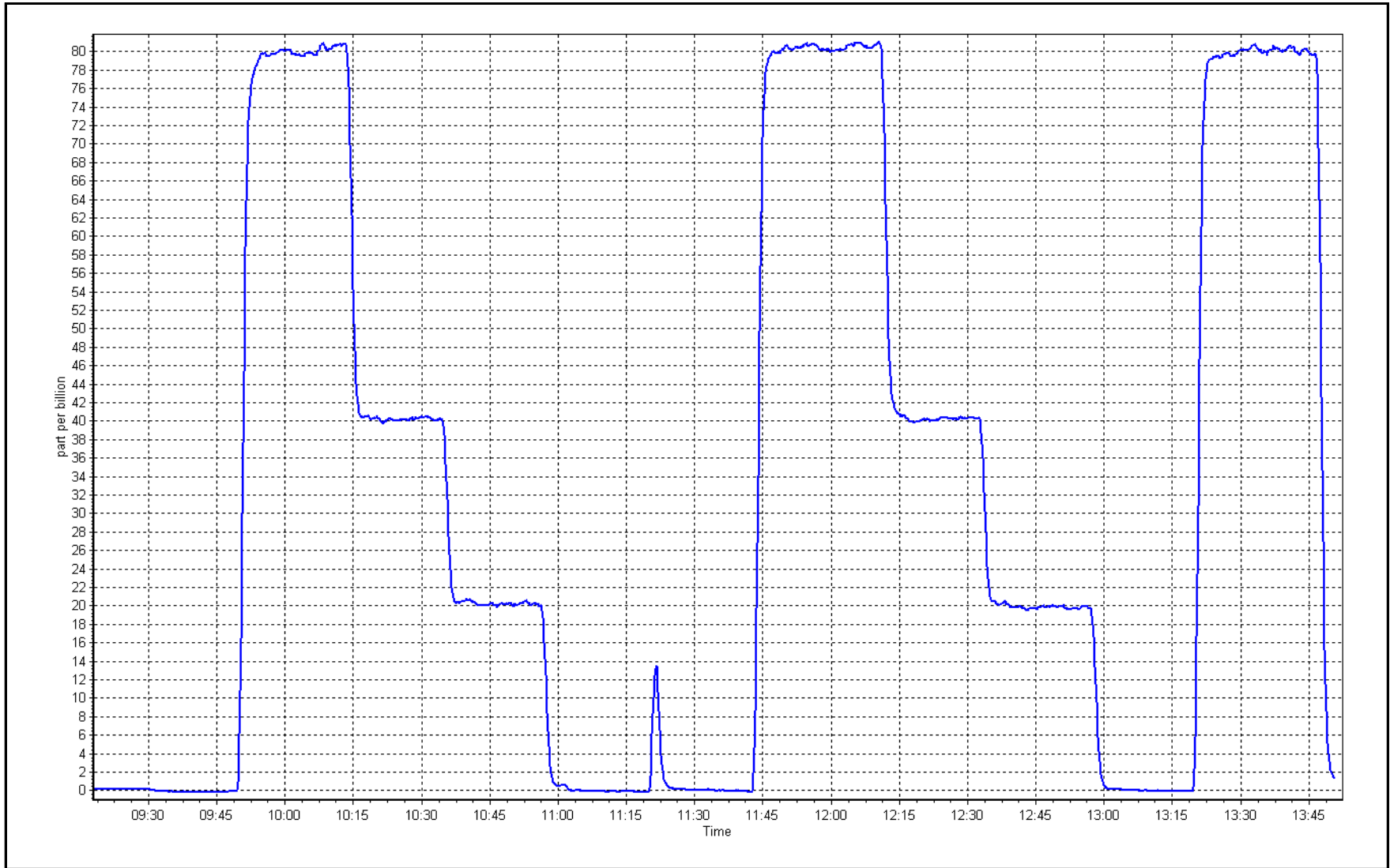
### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 16, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:27	End Time (MST):	13:50
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	12113311966

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999988	$\geq 0.995$
80.0	80.7	0.9909	Slope	1.011536	$0.90 - 1.10$
40.0	40.3	0.9920	Intercept	-0.198204	$\pm 3$
20.0	19.9	1.0070			







# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number:	AMS 01
Calibration Date:	May 6, 2026	Last Cal Date:	April 16, 2026
Start time (MST):	9:27	End time (MST):	13:50
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.84	ppm	Cal Gas Exp Date:	September 5, 2027
Cal Gas Cylinder #:	CC738239			
Removed Cal Gas Conc:	4.84	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	3565
ZAG Make/Model:	Teledyne API T701		Serial Number:	146

### Analyzer Information

Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	1200326167
Converter make:	CD Nova	Converter serial #:	2022-221
Analyzer Range	0 - 100 ppb	Converter Temp:	315 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998386	1.004818	Backgd or Offset:	2.13	2.16
Calibration intercept:	0.061993	-0.138118	Coeff or Slope:	1.035	1.035

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4917	82.6	80.0	80.9	0.986
As found Mid point	4959	41.3	40.0	40.2	0.990
As found Low point	4979	20.7	20.0	20.1	0.987
New cylinder response					
Baseline Corr As found:	81.1	Prev response:	79.90	*% change:	1.5%
Baseline Corr 2nd AF pt:	40.4	AF Slope:	1.014112	AF Intercept:	-0.238351
Baseline Corr 3rd AF pt:	20.3	AF Correlation:	0.999996	<i>* = +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4917	82.6	80.0	80.2	0.997
Mid point	4959	41.3	40.0	40.1	0.997
Low point	4979	20.7	20.0	19.9	1.007
As left zero	5000	0.0	0.0	-0.1	----
As left span	4917	82.6	80.0	79.6	1.005
SO <sub>2</sub> Scrubber Check	4919	81.3	813.0	0.0	----
Date of last scrubber change:	January 25, 2024			Ave Corr Factor	1.000
Date of last converter efficiency test:	November 7, 2024			107.9%	efficiency

Notes: Inlet filter and averaging time changed to 90 seconds after as founds. No adjustments were made. Scrubber check completed and passed.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

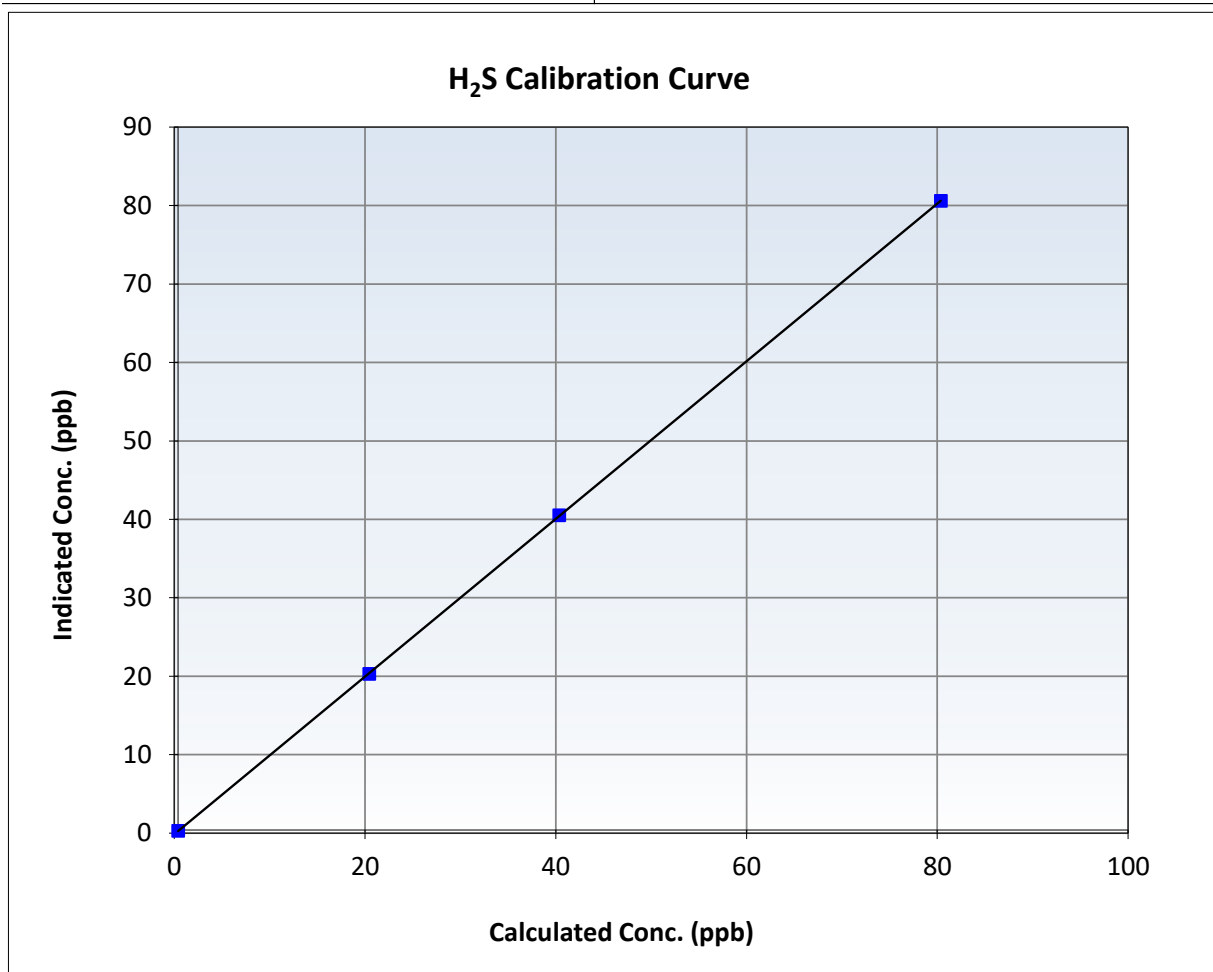
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 16, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:27	End Time (MST):	13:50
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	1200326167

### Calibration Data

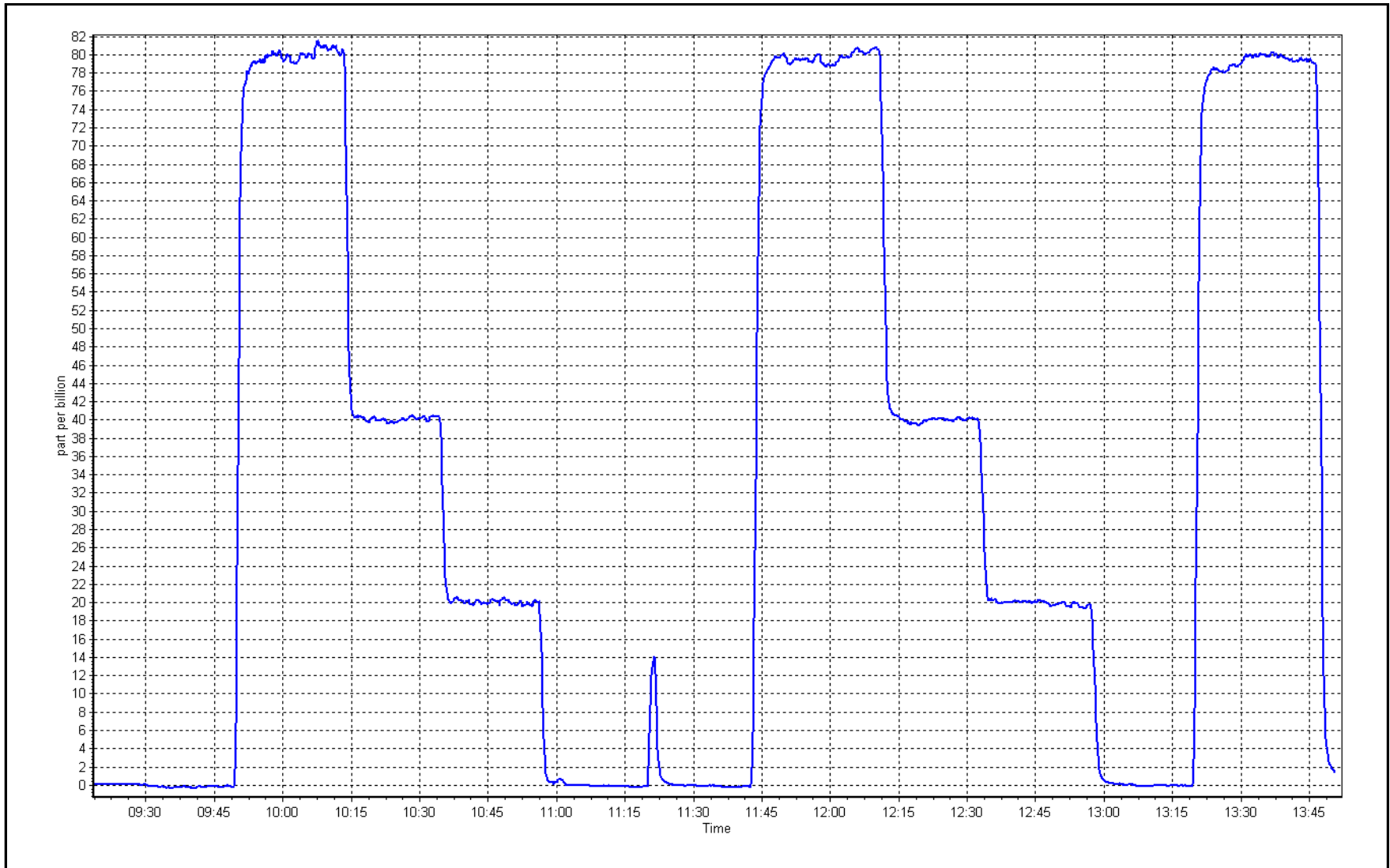
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999996	≥0.995
80.0	80.2	0.9970	Slope	1.004818	0.90 - 1.10
40.0	40.1	0.9969	Intercept	-0.138118	+/-3
20.0	19.9	1.0070			



H<sub>2</sub>S Calibration Plot

Date: May 6, 2026

Location: Bertha Ganter-Fort McKay





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number:	AMS 01
Calibration Date:	May 19, 2026	Last Cal Date:	April 17, 2026
Start time (MST):	9:47	End time (MST):	13:52
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC418809	Cal Gas Expiry Date:	March 10, 2031
CH4 Cal Gas Conc.	497.2 ppm	CH4 Equiv Conc.	1061.8 ppm
C3H8 Cal Gas Conc.	205.3 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	497.2 ppm	CH4 Equiv Conc.	1061.8 ppm
Removed C3H8 Conc.	205.3 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3565
Zero Air Gen model:	Teledyne API T701	Serial Number:	146

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1193585648
THC Range: 0 - 20 ppm	NMHC/CH4 Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.43E-04	2.43E-04	NMHC SP Ratio:	4.74E-05	4.74E-05
CH4 Retention time:	15.0	15.0	NMHC Peak Area:	193738	193738
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	81.3	17.27	17.19	1.005
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.19	Prev response	17.28	*% change	-0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	81.3	17.27	17.17	1.006
Mid point	4959	40.7	8.64	8.59	1.007
Low point	4979	20.3	4.31	4.29	1.004
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	81.3	17.27	17.18	1.005
Average Correction Factor					1.006

Notes: Sample inlet filter was changed after as founds. No adjustments made.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	81.3	9.18	9.10	1.009
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.10	Prev response	9.18	*% change	-0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	81.3	9.18	9.08	1.012
Mid point	4959	40.7	4.60	4.56	1.008
Low point	4979	20.3	2.29	2.28	1.007
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	81.3	9.18	9.10	1.009
Average Correction Factor					1.009

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	81.3	8.09	8.08	1.000
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.08	Prev response	8.10	*% change	-0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	81.3	8.09	8.09	0.999
Mid point	4959	40.7	4.05	4.03	1.006
Low point	4979	20.3	2.02	2.02	1.000
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	81.3	8.09	8.08	1.000
Average Correction Factor					1.002

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.000773	0.993904
THC Cal Offset:	-0.001252	0.002142
CH <sub>4</sub> Cal Slope:	1.001749	1.000405
CH <sub>4</sub> Cal Offset:	-0.003929	-0.005926
NMHC Cal Slope:	1.000137	0.988279
NMHC Cal Offset:	0.002278	0.007668

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

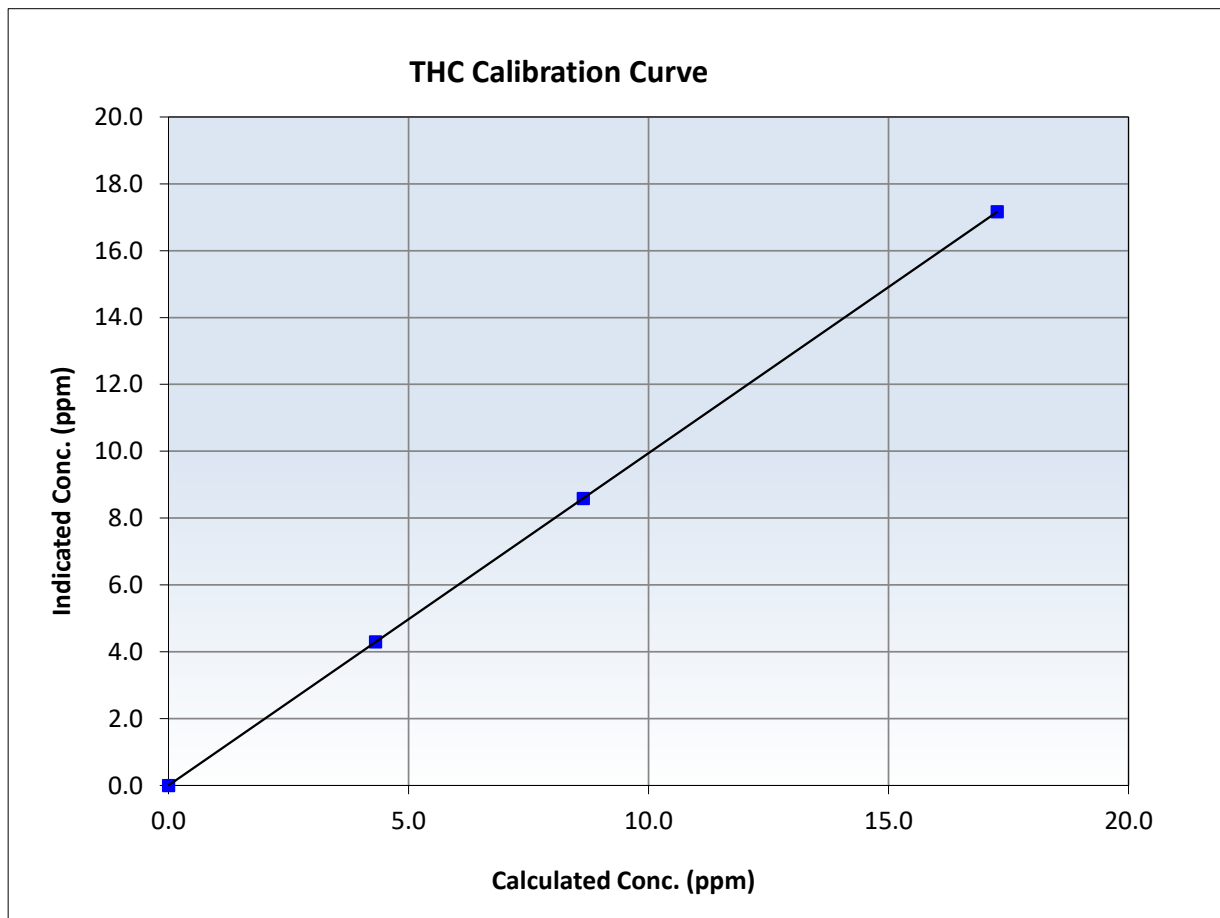
## THC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:47	End Time (MST):	13:52
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585648

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999999	<span style="color: red;">≥0.995</span>
17.27	17.17	1.0059	Slope	0.993904	<span style="color: red;">0.90 - 1.10</span>
8.64	8.59	1.0066	Intercept	0.002142	<span style="color: red;">+/-0.5</span>
4.31	4.29	1.0041			





# Wood Buffalo Environmental Association

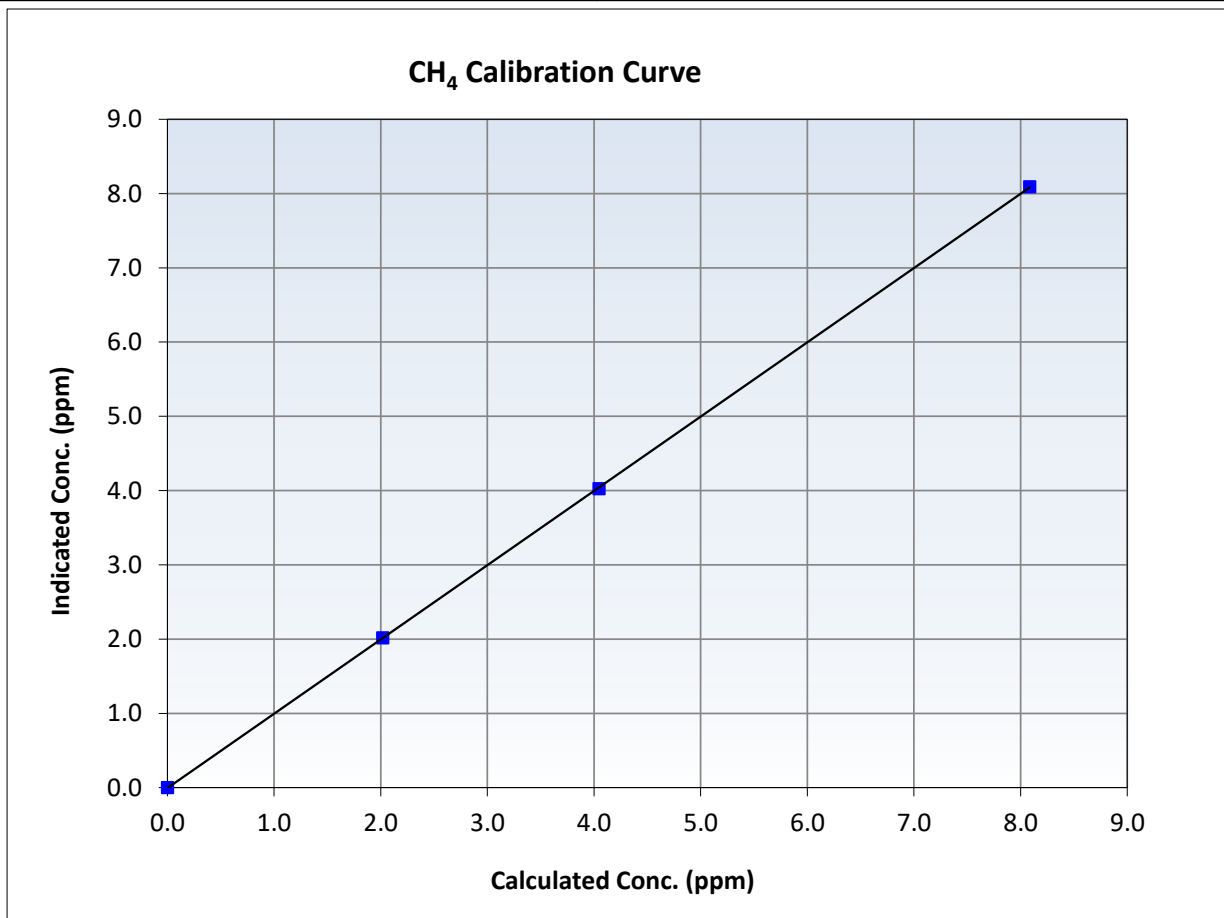
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:47	End Time (MST):	13:52
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585648

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999988	<i>≥0.995</i>
8.09	8.09	0.9993	Slope	1.000405	<i>0.90 - 1.10</i>
4.05	4.03	1.0056	Intercept	-0.005926	<i>+/-0.5</i>
2.02	2.02	1.0005			





# Wood Buffalo Environmental Association

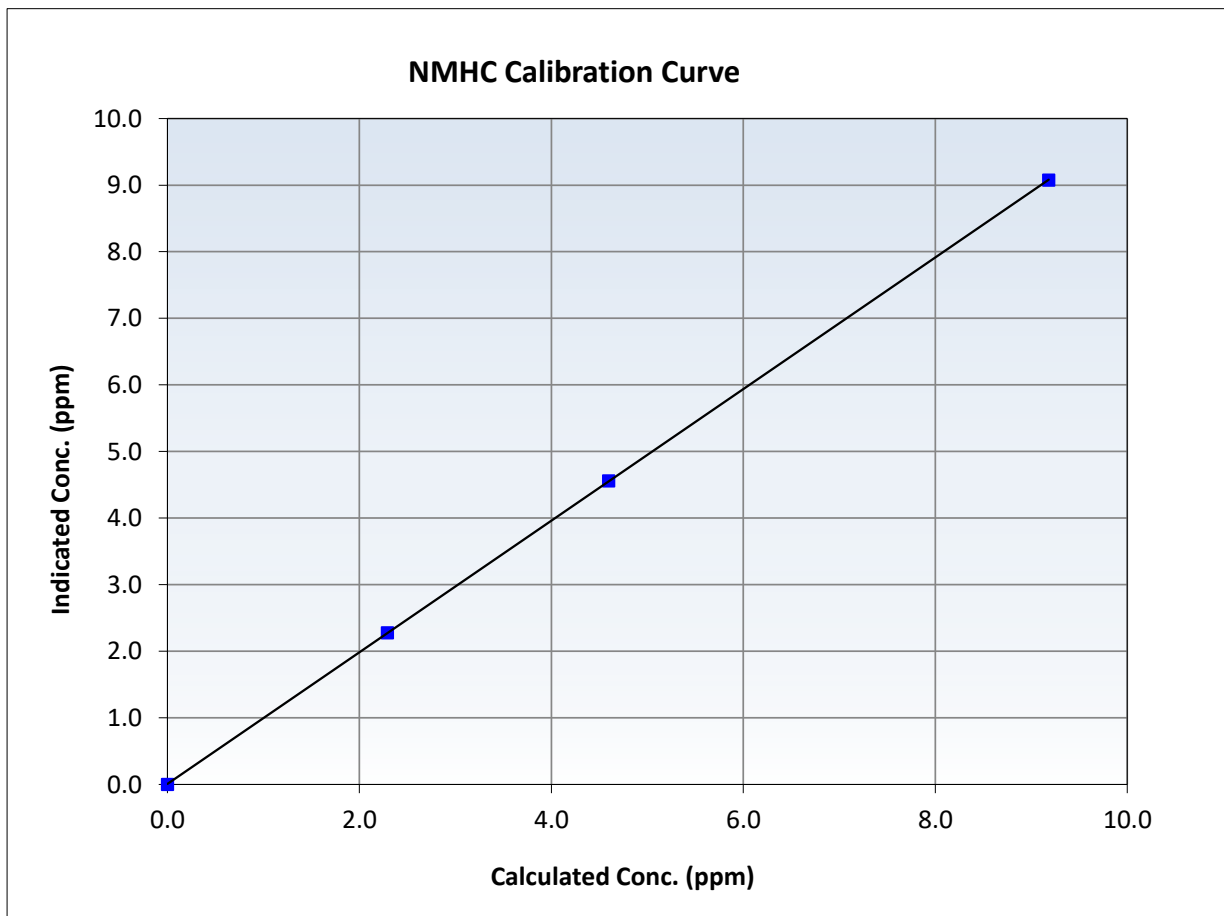
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:47	End Time (MST):	13:52
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585648

### Calibration Data

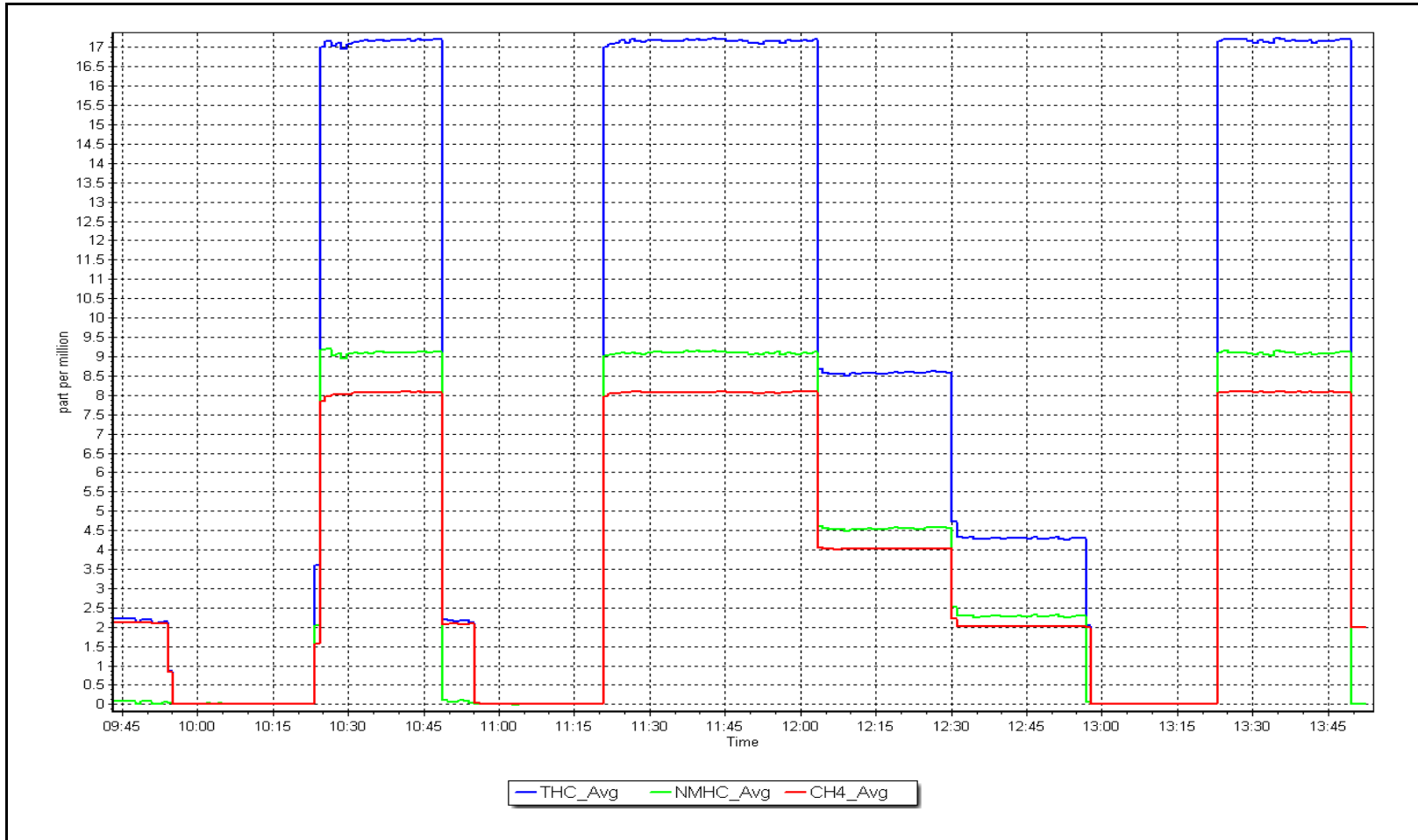
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999995	<i>≥0.995</i>
9.18	9.08	1.0117	Slope	0.988279	<i>0.90 - 1.10</i>
4.60	4.56	1.0077	Intercept	0.007668	<i>+/-0.5</i>
2.29	2.28	1.0072			



NMHC Calibration Plot

Date: May 19, 2026

Location: Bertha Ganter-Fort McKay





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Bertha Ganter-Fort McKay  
 Station number: AMS 01  
 Calibration Date: May 21, 2026  
 Last Cal Date: April 15, 2026  
 Start time (MST): 8:55  
 End time (MST): 13:47  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC335700  
 NOX Cal Gas Conc: 59.40 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 59.40 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: September 1, 2032  
 NO Cal Gas Conc: 59.20 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 59.20 ppm  
 NO gas Diff:  
 Serial Number: 3565  
 Serial Number: 146

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.6	0.1	0.5	----	----
AF High point	4932	67.6	803.1	800.4	2.7	801.1	793.6	7.4	1.0032	1.0087
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 802.4 ppb	NO = 798.0 ppb				<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.2%	
Baseline Corr 1st pt	NO <sub>x</sub> = 800.5 ppb	NO = 793.5 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -0.6%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1336160088

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.748	0.753	NO bkgnd or offset:	2.2	2.2
NOX coeff or slope:	1.001	1.001	NOX bkgnd or offset:	2.3	2.3
NO2 coeff or slope:	0.999	0.999	Reaction cell Press:	161.8	162.6

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.998517	0.998830
NO <sub>x</sub> Cal Offset:	0.520000	0.360000
NO Cal Slope:	0.998364	0.998235
NO Cal Offset:	-1.120000	-1.100000
NO <sub>2</sub> Cal Slope:	1.013841	0.997384
NO <sub>2</sub> Cal Offset:	-0.333851	0.979226

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.6	0.1	0.5	----	----
High point	4932	67.6	803.1	800.4	2.7	802.5	798.4	4.1	1.0007	1.0025
Mid point	4966	33.8	401.5	400.2	1.4	401.7	398.0	3.7	0.9996	1.0055
Low point	4983	16.9	200.8	200.1	0.7	200.4	197.3	3.2	1.0019	1.0142
As left zero	5000	0.0	0.0	0.0	0.0	0.6	0.0	0.6	----	----
As left span	4932	67.6	803.1	401.9	401.2	801.0	401.9	399.1	1.0026	1.0000
Average Correction Factor									1.0007	1.0074

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.5	----	----
High GPT point	795.9	397.6	401.0	400.6	1.0010	99.9%
Mid GPT point	795.9	600.2	198.4	199.4	0.9950	100.5%
Low GPT point	795.9	699.0	99.6	100.6	0.9901	101.0%
Average Correction Factor					0.9954	100.5%

Notes: Changed the sample inlet filter after as founds. Span adjusted.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

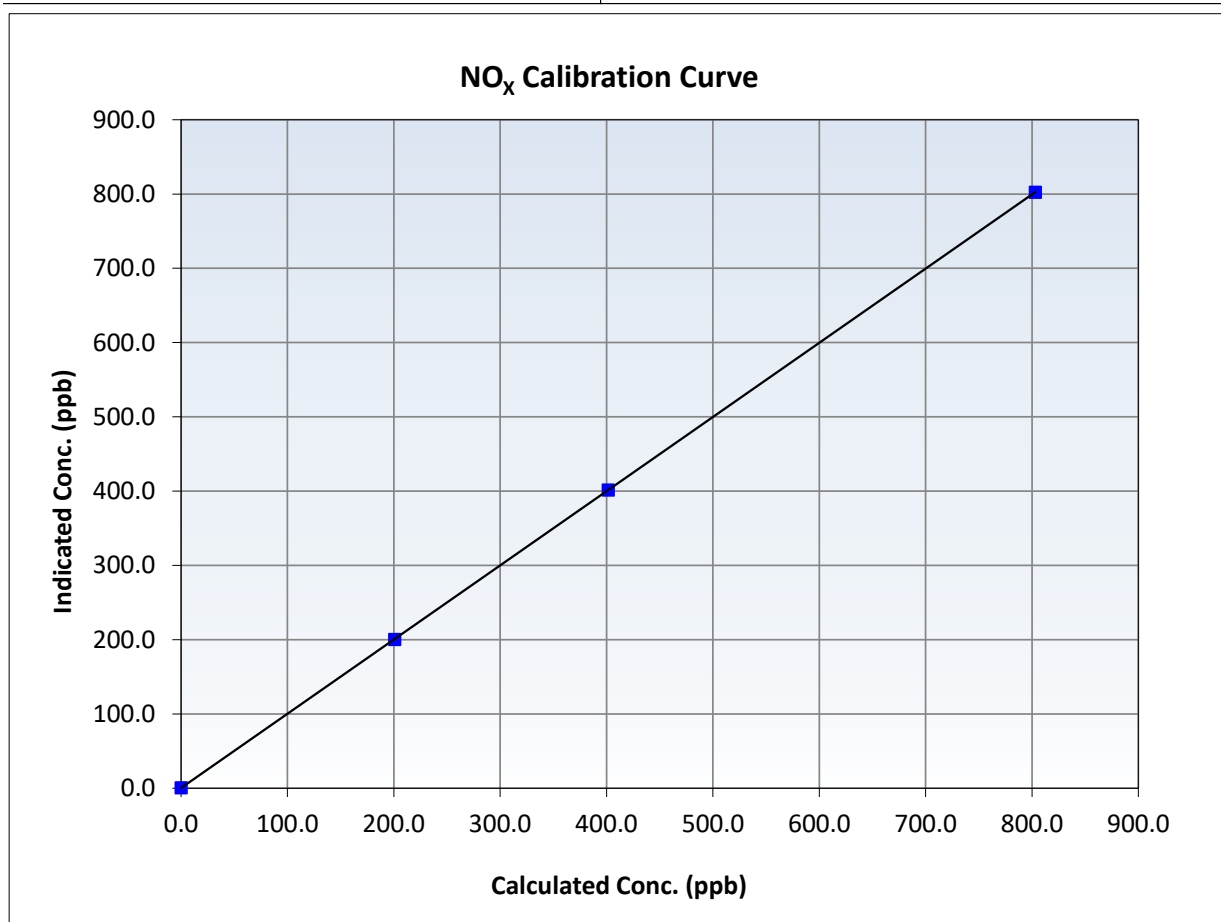
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 15, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	8:55	End Time (MST):	13:47
Analyzer make:	Thermo 42i	Analyzer serial #:	1336160088

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.6	----	Correlation Coefficient	0.999999	≥0.995
803.1	802.5	1.0007	Slope	0.998830	0.90 - 1.10
401.5	401.7	0.9996	Intercept	0.360000	+/-20
200.8	200.4	1.0019			





# Wood Buffalo Environmental Association

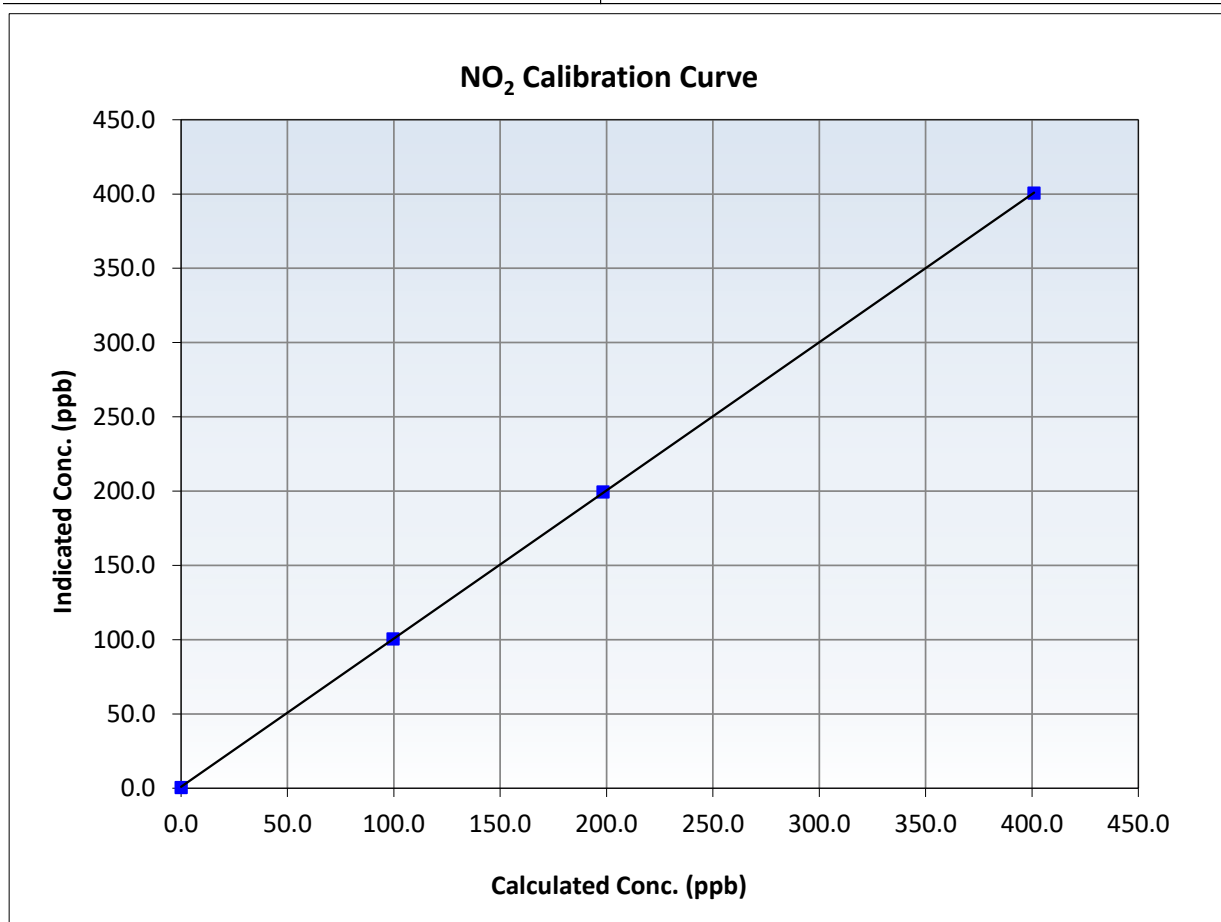
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 15, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	8:55	End Time (MST):	13:47
Analyzer make:	Thermo 42i	Analyzer serial #:	1336160088

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.5	----	Correlation Coefficient	0.999992	<i>≥0.995</i>
401.0	400.6	1.0010	Slope	0.997384	<i>0.90 - 1.10</i>
198.4	199.4	0.9950	Intercept	0.979226	<i>+/-20</i>
99.6	100.6	0.9901			





# Wood Buffalo Environmental Association

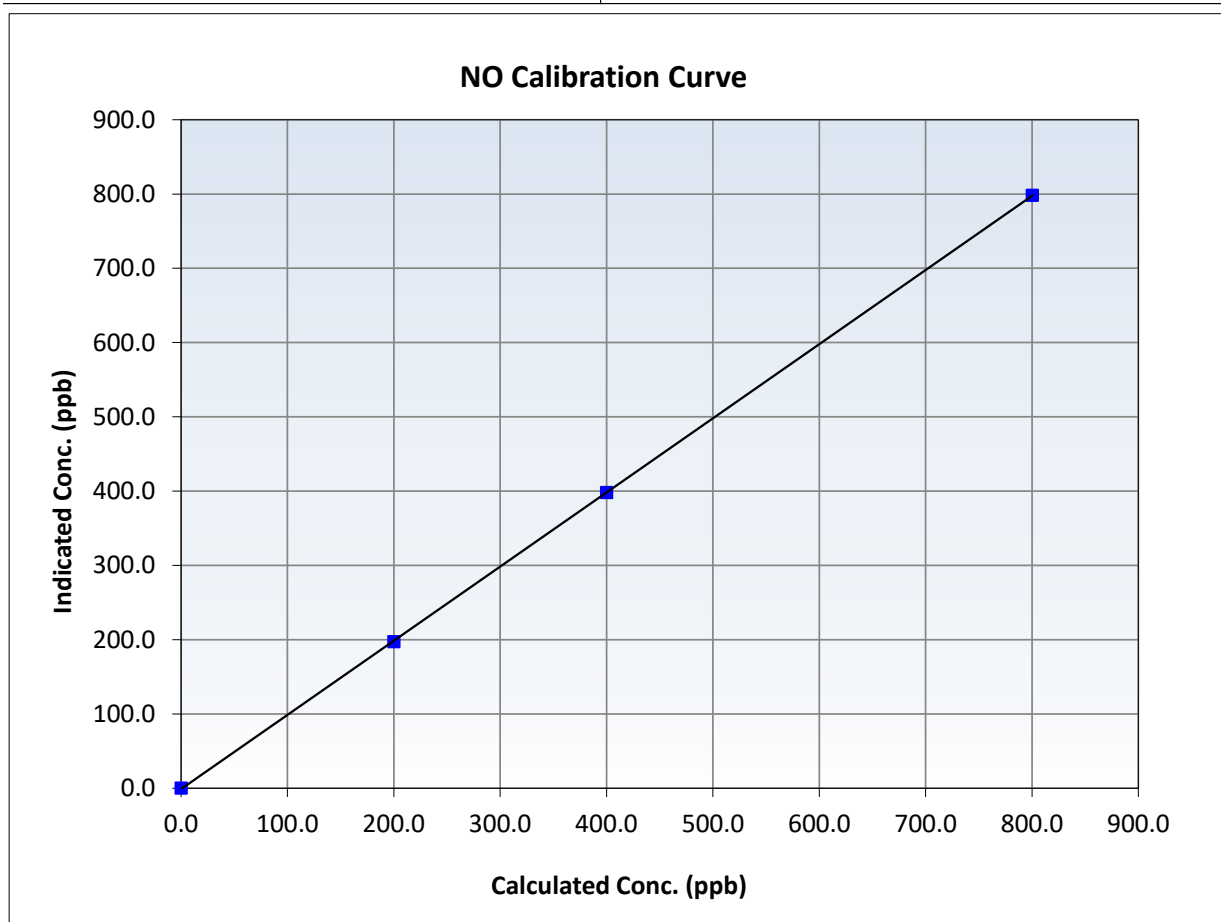
## NO Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 15, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	8:55	End Time (MST):	13:47
Analyzer make:	Thermo 42i	Analyzer serial #:	1336160088

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999989	<span style="color: red;">≥0.995</span>
800.4	798.4	1.0025	Slope	0.998235	<span style="color: red;">0.90 - 1.10</span>
400.2	398.0	1.0055	Intercept	-1.100000	<span style="color: red;">+/-20</span>
200.1	197.3	1.0142			



NO<sub>x</sub> Calibration Plot

Date: May 21, 2026

Location: Bertha Ganter-Fort McKay





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number: AMS 01
Calibration Date:	May 4, 2026	Last Cal Date: April 9, 2026
Start time (MST):	9:59	End time (MST): 15:11
Reason:	Routine	

### Calibration Standards

O3 generation mode:	Photometer	
Calibrator Make/Model:	Teledyne API T700	Serial Number: 3565
ZAG Make/Model:	Teledyne API T701	Serial Number: 146

### Analyzer Information

Analyzer make:	Teledyne API T400	Analyzer serial #: 7045
Analyzer Range	0 - 500 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997543	0.991086	Backgd or Offset:	2.8	2.8
Calibration intercept:	1.780000	1.760000	Coeff or Slope:	1.163	1.182

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	5000	874.8	400.0	386.9	1.034
As found Mid point					
As found Low point					
Baseline Corr As found:	386.8	Previous response	400.8	*% change	-3.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	5000	874.8	400.0	397.4	1.007
Mid point	5000	744.0	200.0	200.9	0.996
Low point	5000	651.7	100.0	102.2	0.978
As left zero	5000	0.0	0.0	0.1	----
As left span	5000	874.8	400.0	400.9	0.998
Average Correction Factor					0.994

Notes: Changed the inlet filter after as founds. Adjusted span only. Power outage occurred in the middle of the calibration.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

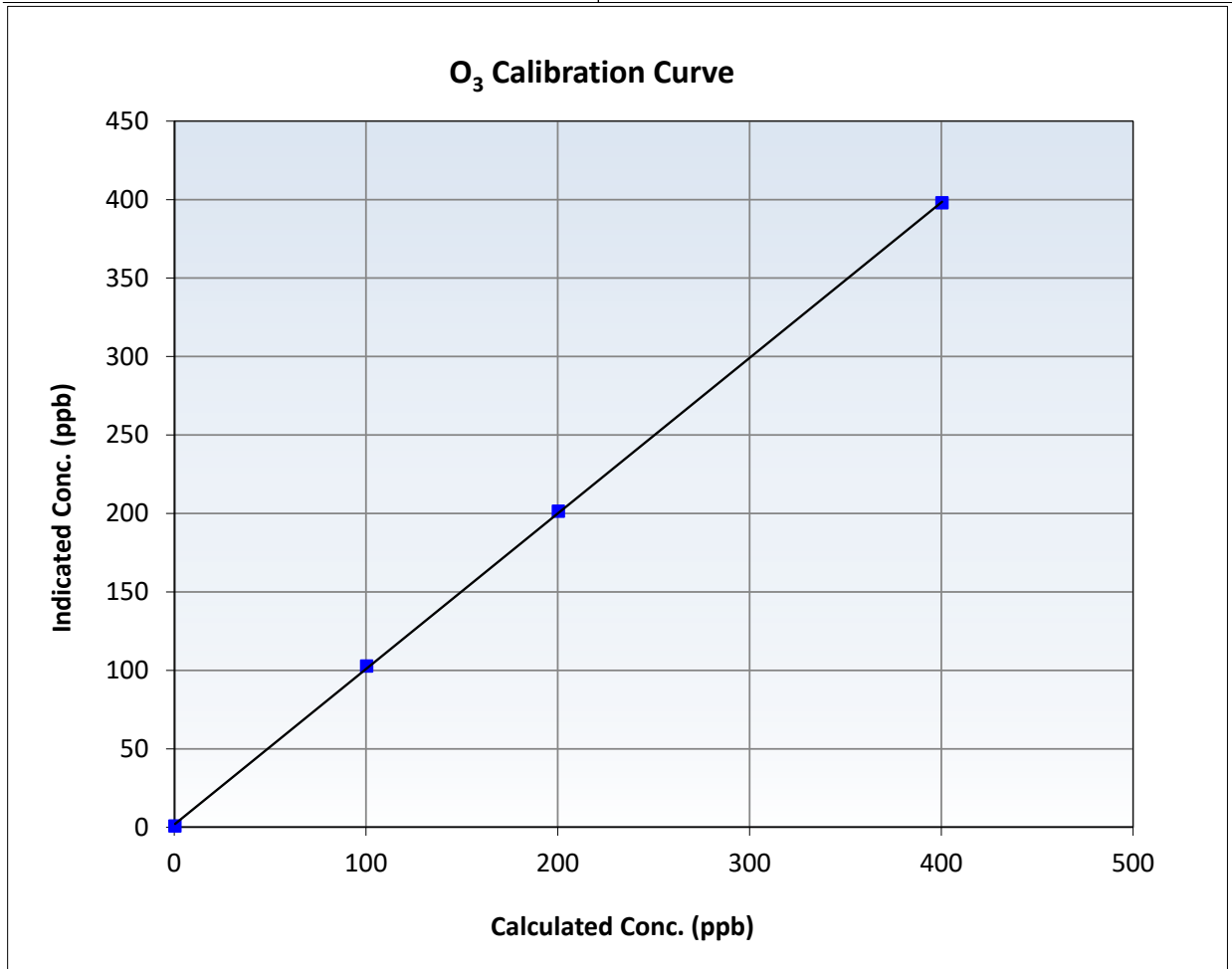
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 4, 2026	Previous Calibration:	April 9, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:59	End Time (MST):	15:11
Analyzer make:	Teledyne API T400	Analyzer serial #:	7045

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999937	<b>≥0.995</b>
400.0	397.4	1.0065	Slope	0.991086	<b>0.90 - 1.10</b>
200.0	200.9	0.9955	Intercept	1.760000	<b>+/- 5</b>
100.0	102.2	0.9785			



O<sub>3</sub> Calibration Plot

Date: May 4, 2026

Location: Bertha Ganter-Fort McKay





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Fort McKay - Bertha Ganter Station number: AMS 01  
Calibration Date: May 26, 2026 Last Cal Date: April 16, 2026  
Start time (MST): 11:54 End time (MST): 13:17

Analyzer Make: Teledyne API T640 S/N: 323  
Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388749  
Temp/RH standard: Alicat FP-25BT S/N: 388749

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	26.90	27.0	26.90	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	734.50	733.46	734.50	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.01	4.94	5.01	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	30		30	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	5.90	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: 6/10/2024  
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	9.2	10.9	10.9	<input type="checkbox"/>	10.9 +/- 0.5

Date Optical Chamber Cleaned: May 26, 2026  
Date Disposable Filter Changed: May 26, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: February 24, 2026  
Date RH/T Sensor Cleaned: February 24, 2026

Notes: Flow, temperature, and pressure were verified. No adjustments made. Leak check passed. PMT peak test passed.

Calibration by: Param Kaur



# Wood Buffalo Environmental Association

## Nt - NOX - NH3 Calibration Report

### Station Information

Station Name:	Bertha Ganter-Fort McKay	Station number:	AMS 01
NOX Cal Date:	May 25, 2026	Last Cal Date:	April 20, 2026
Start time (MST):	9:56	End time (MST):	14:40
NH3 Cal Date:	May 26, 2026	Last Cal Date:	April 21, 2026
Start time (MST):	9:00	End time (MST):	13:17
Reason:	Routine		

### Calibration Standards

NOX Cal Gas Conc:	59.40	ppm	NO Gas Cylinder #:	CC335700
NO Cal Gas Conc:	59.20	ppm	NO Cal Gas Expiry:	September 1, 2032
Removed NOX Conc:	59.40	ppm	Removed Cylinder #:	NA
Removed NO Conc:	59.20	ppm	Removed cyl Expiry:	NA
NOX gas Diff:			NO gas Diff:	
NH3 Cal Gas Conc:	76.58	ppm	NH3 Gas Cylinder #:	CC482625
Removed NH3 Conc:	76.58	ppm	NH3 Cal Gas Expiry:	September 10, 2026
NH3 gas Diff:			Removed Cylinder #:	NA
Calibrator Model:	API T700		Removed cyl Expiry:	NA
ZAG make/model:	API T701		Serial Number:	3565
			Serial Number:	146

### Analyzer Information

Analyzer model:	API T201	Analyzer serial #:	152
Converter model:	API T501	Converter serial #:	484
NH3 Range (ppb):	0 - 2000 ppb	Reaction cell Press:	8.2
NOX Range (ppb):	0 - 1000 ppb	Sample Flow:	562

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coefficient:	0.999	0.999	Nt coefficient:	1.011	1.011
NOX coefficient:	1.010	1.010	NO bkgnd:	0.0	0.0
NO2 coefficient:	1.000	1.000	NOX bkgnd:	0.0	0.0
NH3 coefficient:	0.971	0.971	Nt bkgnd:	0.0	0.0

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.985766	0.995742
NO <sub>x</sub> Cal Offset:	1.000000	-0.680000
NO Cal Slope:	0.985327	0.991767
NO Cal Offset:	-0.380000	-1.060000
NO <sub>2</sub> Cal Slope:	0.995945	0.996618
NO <sub>2</sub> Cal Offset:	1.808214	1.617423
NH3 Cal Slope:	1.010629	0.995183
NH3 Cal Offset:	-2.970330	1.175347
Nt Cal Slope:	1.012960	0.997463
Nt Cal Offset:	-2.668162	1.493497



# Wood Buffalo Environmental Association

## NO<sub>x</sub> - NO - NO<sub>2</sub> Calibration Report

### NO<sub>x</sub> / NO / Nt As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	Baseline corr NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>	Baseline corr NO Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.4	0.0	-0.2	----	----
As found span	4932	67.6	803.1	800.4	803.1	800.3	793.0	800.7	1.0035	1.0093
AF GPT span	4932	67.6	803.1	-----	803.1	803.7	-----	801.2	0.9992	-----
new NO cyl rp										

Baseline Corr As Fd      Nt = 800.9 ppb      NO<sub>x</sub> = 799.9 ppb      NO = 793.0 ppb  
 Previous Response      Nt = 810.83 ppb      NO<sub>x</sub> = 792.7 ppb      NO = 788.3 ppb

\*\*NO<sub>x</sub> Δ (NO to GPT response) = 0.6%

\* \* = > +/-2% difference initiates investigation

\*Percent Change      Nt<sub>(NO)</sub> = -1.2%

\*Percent Change      NO<sub>x</sub> = 0.9%

\*Percent Change      NO = 0.6%

\* = > +/-5% change initiates investigation

### NO<sub>x</sub> / NO / Nt Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	0.0	-0.1	0.2	----	----
High point	4932	67.6	803.1	800.4	803.1	799.3	792.9	797.9	1.0047	1.0094
Mid point	4966	33.8	401.5	400.2	401.5	398.9	396.3	398.0	1.0066	1.0098
Low point	4983	16.9	200.8	200.1	200.8	198.5	195.8	198.1	1.0114	1.0219
Average Correction Factor									1.0076	1.0137

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found zero	----	----	0.0	0.4	----	----
Calibration zero	----	----	0.0	0.1	----	----
High GPT point (400 ppb O3)	793.0	392.9	402.8	402.3	1.0013	99.9%
Mid GPT point (200 ppb O3)	793.0	596.6	199.1	200.8	0.9916	100.9%
Low GPT point (100 ppb O3)	793.0	693.3	102.4	105.2	0.9734	102.7%
Average Correction Factor					0.9887	101.2%



## Wood Buffalo Environmental Association NH<sub>3</sub> - N<sub>T</sub> Calibration Report

### NH<sub>3</sub> As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH <sub>3</sub> concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH <sub>3</sub> concentration (ppb) (Ic)	Baseline corr Nt Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>	Baseline corr NH <sub>3</sub> Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.7	0.4	0.3	----	----
AF High point	2930	70.5	1799.3	0.0	1799.3	1796.6	4.1	1792.3	1.002	1.004
AF Mid point										
AF Low point										
new NH <sub>3</sub> cyl rp										
Baseline Corr As Fd	Nt = 1795.9 ppb	NH <sub>3</sub> = 1792.0 ppb							*Percent Change	Nt <sub>(NH<sub>3</sub>)</sub> = -1.3%
Previous Response	Nt = 1820.0 ppb	NH <sub>3</sub> = 1815.5 ppb							*Percent Change	NH <sub>3</sub> = -1.3%

\* = > +/-5% change initiates investigation

### NH<sub>3</sub> Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH <sub>3</sub> concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH <sub>3</sub> concentration (ppb) (Ic)	Nt Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NH <sub>3</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	0.2	0.0	0.1	----	----
High point	2930	70.5	1799.6	0.0	1799.6	1796.6	4.1	1792.3	1.002	1.004
Mid point	2961	39.2	1000.6	0.0	1000.6	998.2	2.5	995.5	1.002	1.005
Low point	2980	19.6	500.3	0.0	500.3	503.2	1.7	501.5	0.994	0.998
Average Correction Factor									0.9995	1.0023
NH <sub>3</sub> Previous Converter Efficiency =	97.1 %									
NH <sub>3</sub> Current Converter Efficiency =	97.1 %									

Notes: Changed the sample inlet filter after as founds. No adjustments made. Used 2nd high NO point for GPT because of drift.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

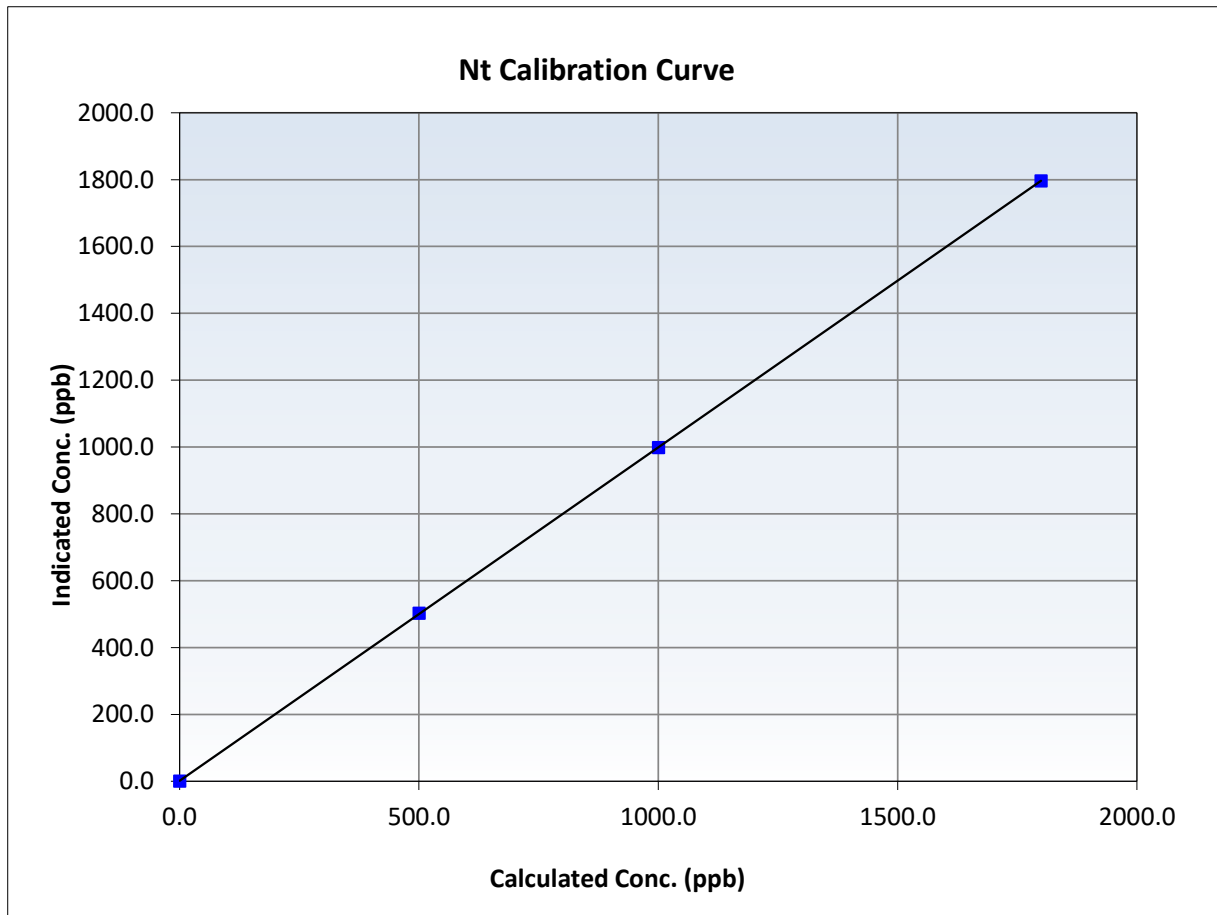
## Nt Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 20, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:00	End Time (MST):	13:17
Analyzer make:	API T201	Analyzer serial #:	152

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999994	<i>≥0.995</i>
1799.6	1796.6	1.0017	Slope	0.997463	<i>0.90 - 1.10</i>
1000.6	998.2	1.0024	Intercept	1.493497	<i>+/-20</i>
500.3	503.2	0.9943			





# Wood Buffalo Environmental Association

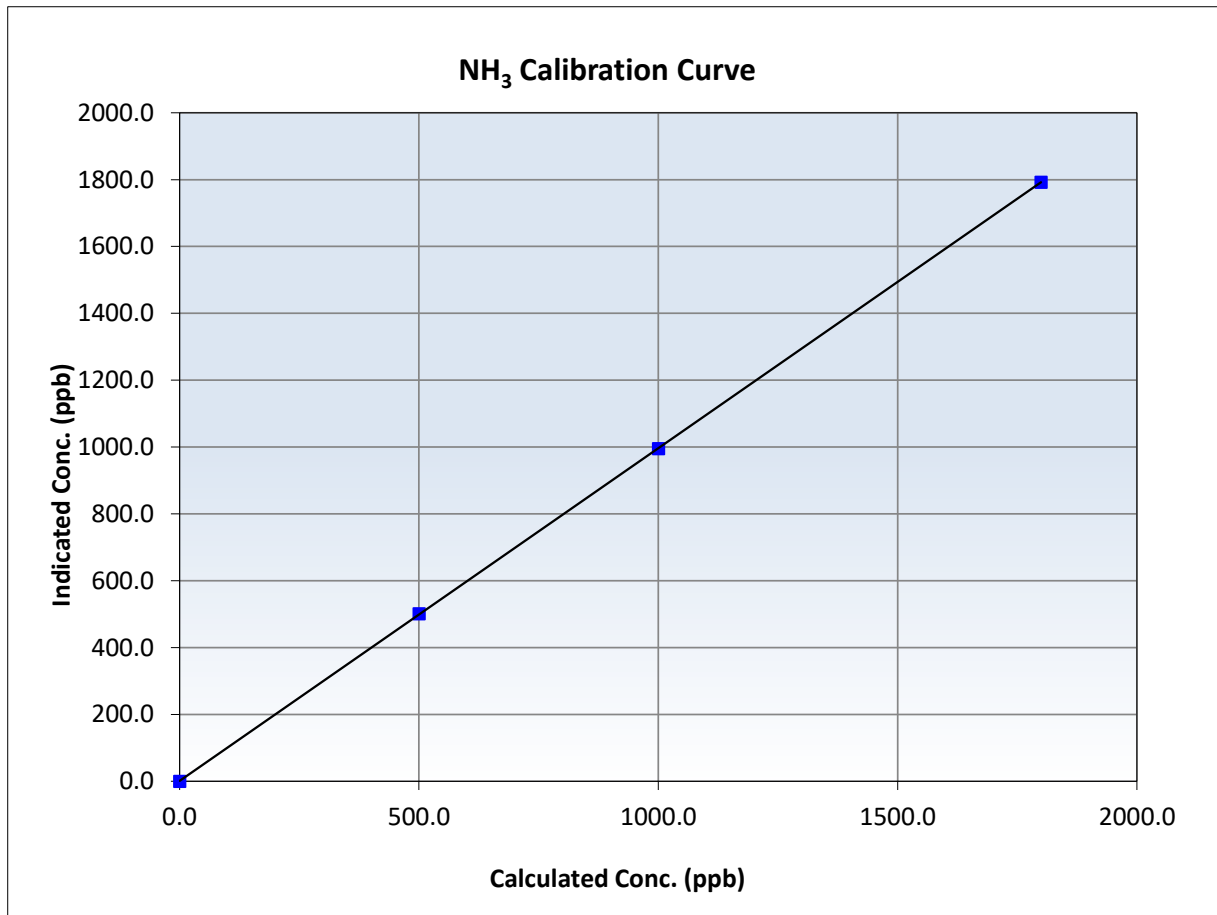
## NH<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 20, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:00	End Time (MST):	13:17
Analyzer make:	API T201	Analyzer serial #:	152

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999995	≥0.995
1799.6	1792.3	1.0041	Slope	0.995183	0.90 - 1.10
1000.6	995.5	1.0052	Intercept	1.175347	+/-20
500.3	501.5	0.9977			





# Wood Buffalo Environmental Association

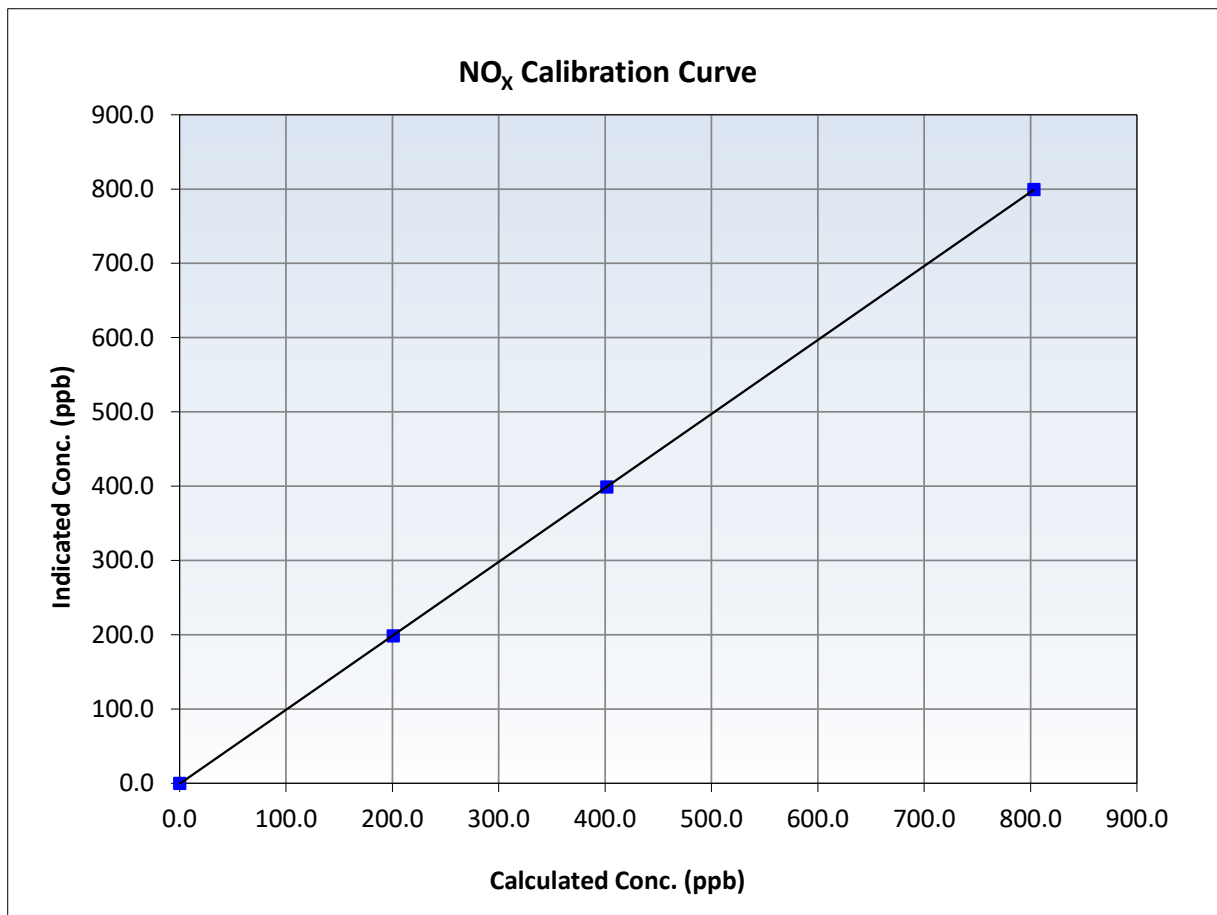
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 20, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:56	End Time (MST):	14:40
Analyzer make:	API T201	Analyzer serial #:	152

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
803.1	799.3	1.0047	Slope	0.995742	<i>0.90 - 1.10</i>
401.5	398.9	1.0066	Intercept	-0.680000	<i>+/-20</i>
200.8	198.5	1.0114			





# Wood Buffalo Environmental Association

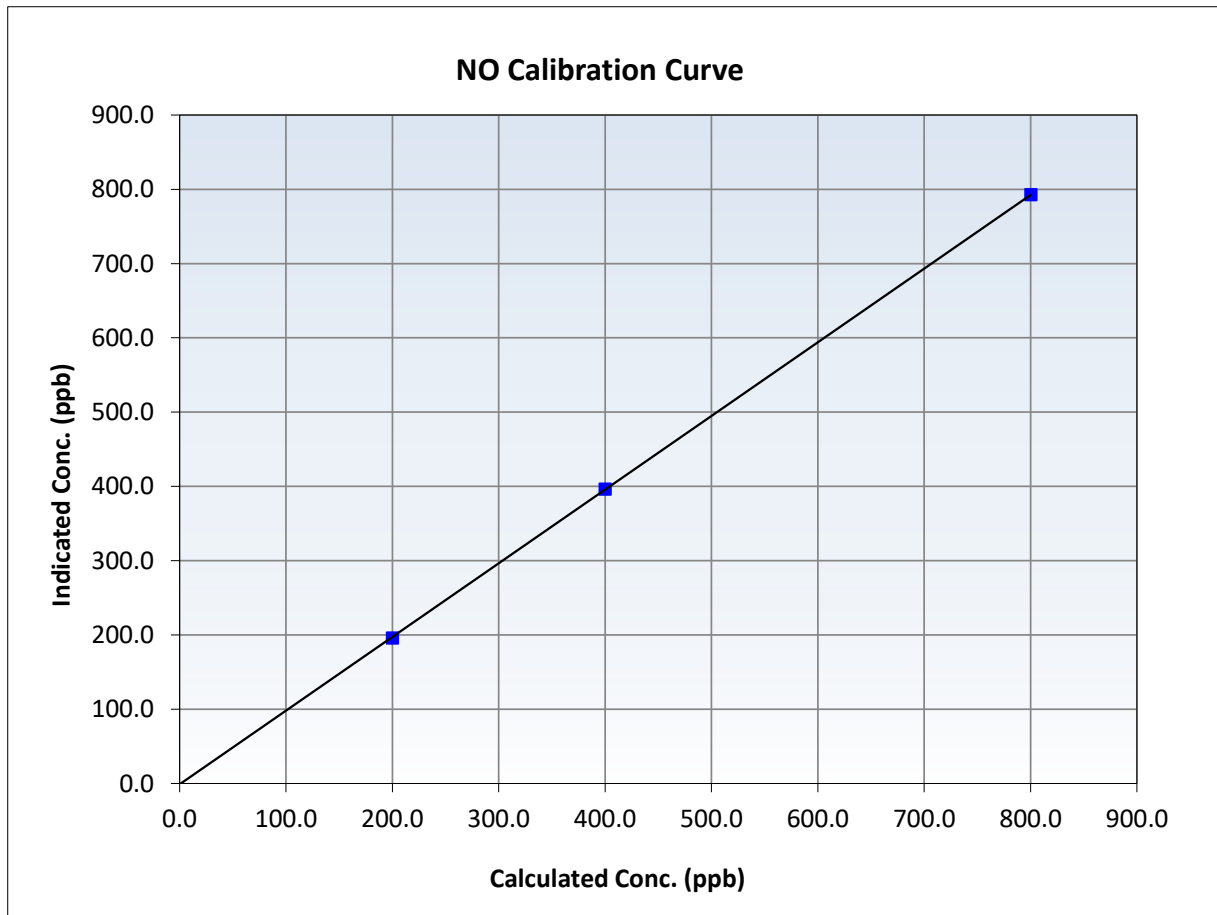
## NO Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 20, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:56	End Time (MST):	14:40
Analyzer make:	API T201	Analyzer serial #:	152

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999989	$\geq 0.995$
800.4	792.9	1.0094	Slope	0.991767	0.90 - 1.10
400.2	396.3	1.0098	Intercept	-1.060000	+/-20
200.1	195.8	1.0219			





# Wood Buffalo Environmental Association

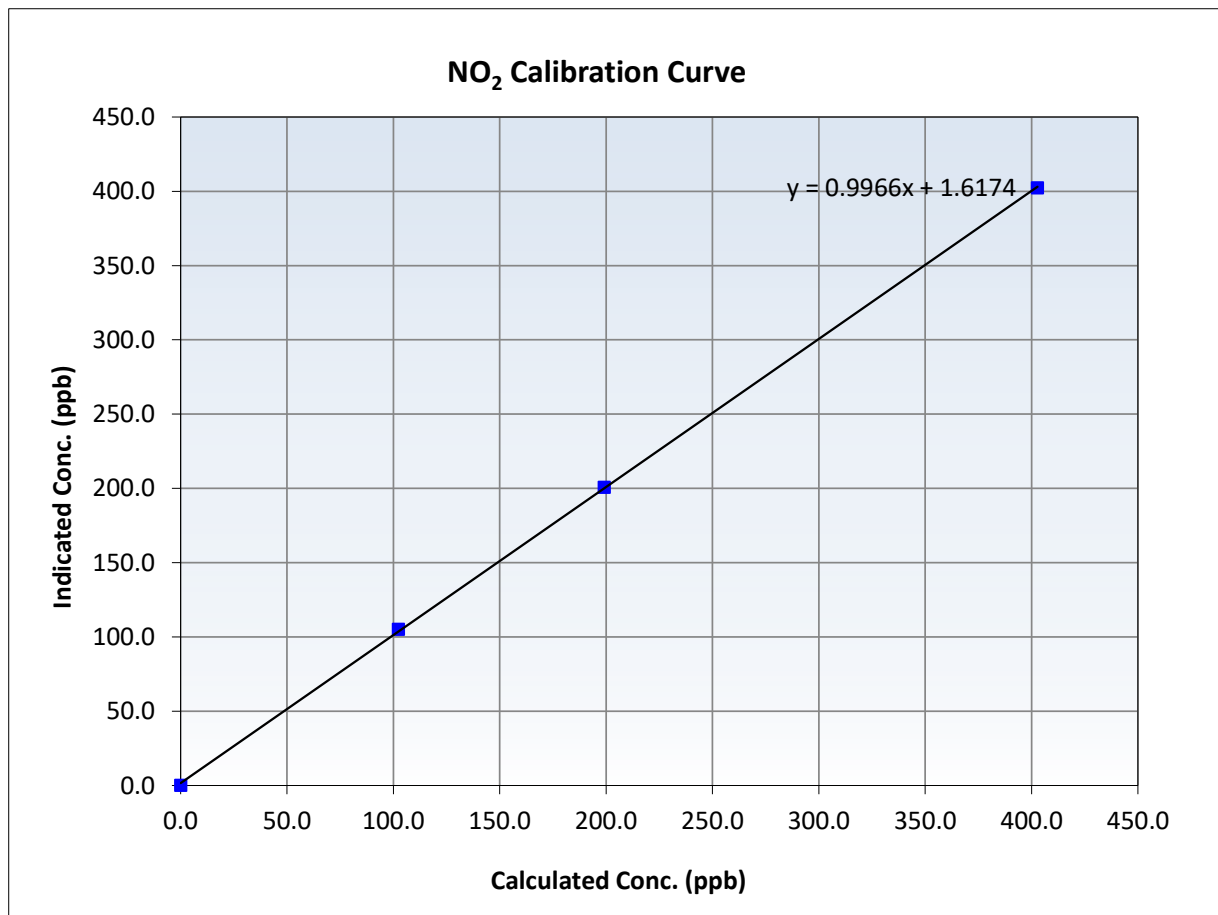
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 20, 2026
Station Name:	Bertha Ganter-Fort McKay	Station Number:	AMS 01
Start Time (MST):	9:56	End Time (MST):	14:40
Analyzer make:	API T201	Analyzer serial #:	152

### Calibration Data

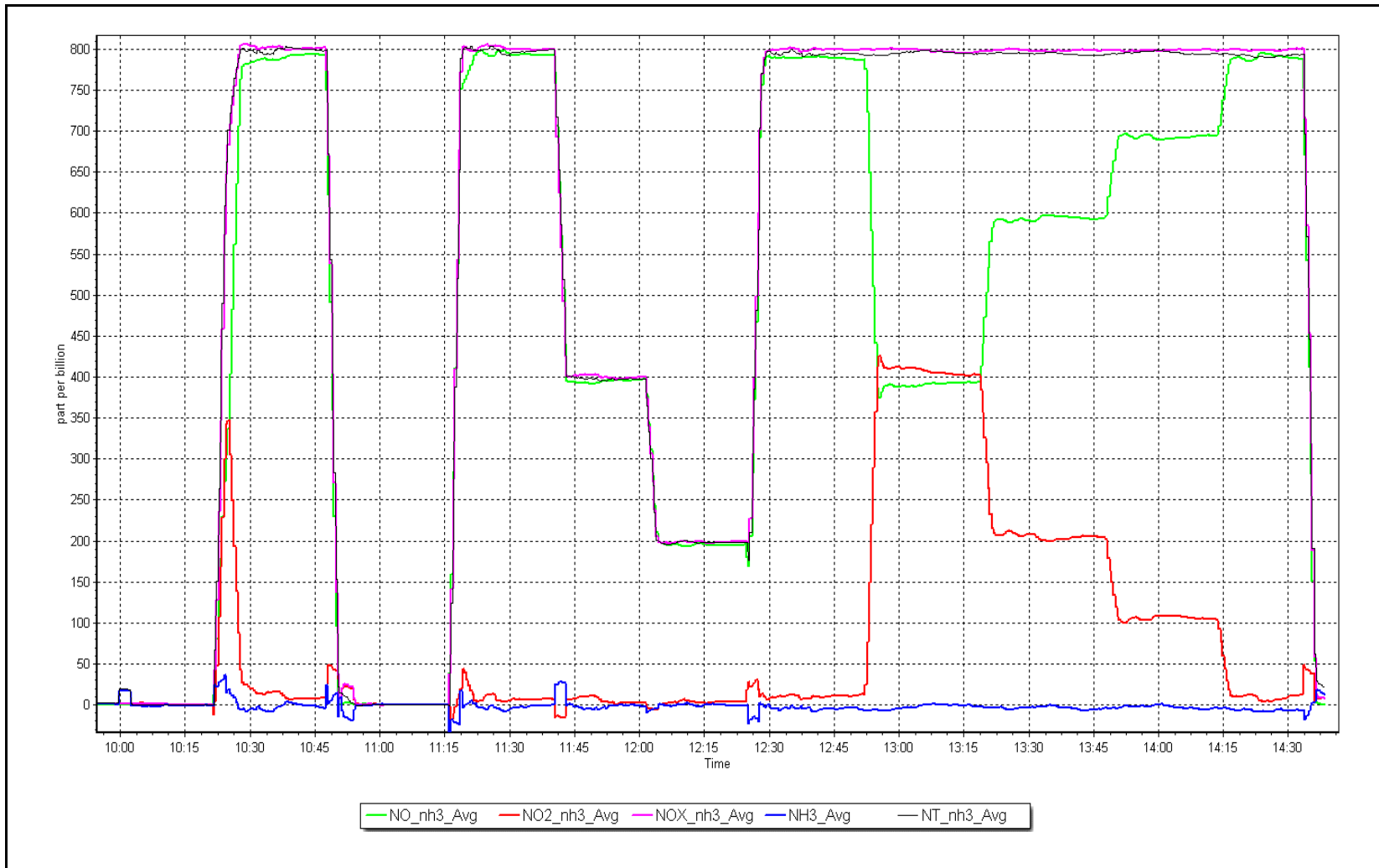
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999934	<i>≥0.995</i>
402.8	402.3	1.0013	Slope	0.996618	<i>0.90 - 1.10</i>
199.1	200.8	0.9916	Intercept	1.617423	<i>+/-20</i>
102.4	105.2	0.9734			



NO<sub>x</sub> Calibration Plot

Date: May 25, 2026

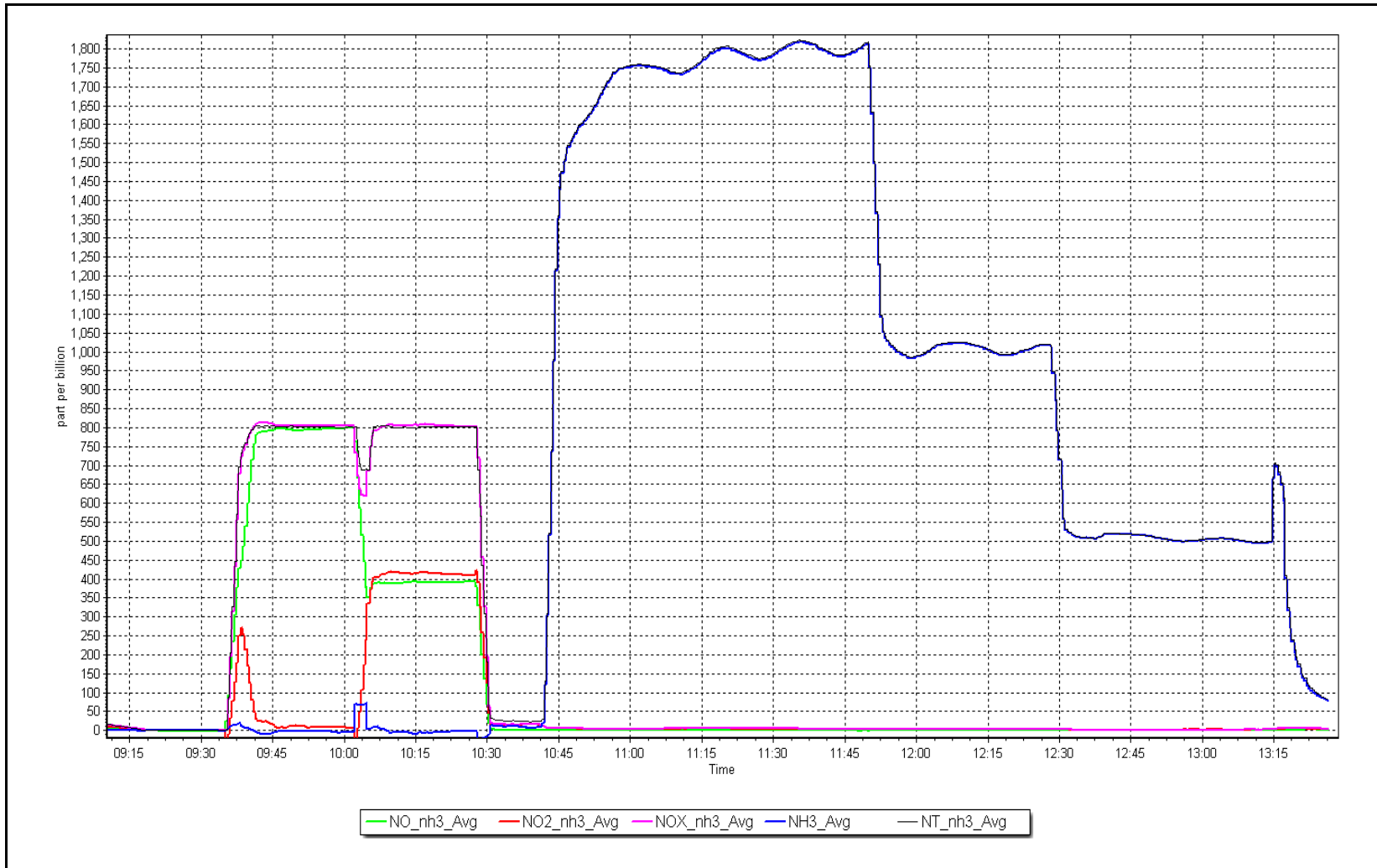
Location: Bertha Ganter-Fort McKay



NH<sub>3</sub> Calibration Plot

Date: May 26, 2026

Location: Bertha Ganter-Fort McKay





## **WOOD BUFFALO ENVIRONMENTAL ASSOCIATION**

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS04 BUFFALO VIEWPOINT MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Buffalo Viewpoint	Station number:	AMS 04
Calibration Date:	May 5, 2026	Last Cal Date:	April 14, 2026
Start time (MST):	9:45	End time (MST):	13:27
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.06	ppm	Cal Gas Exp Date: January 5, 2029
Cal Gas Cylinder #:	CC147416		
Removed Cal Gas Conc:	50.87	ppm	Rem Gas Exp Date: March 10, 2031
Removed Gas Cyl #:	CC446753		Diff between cyl: 0.2%
Calibrator Model:	Teledyne API T700		Serial Number: 3808
Zero Air Gen Model:	Teledyne API T701		Serial Number: 362

### Analyzer Information

Analyzer make:	Thermo 43i-LTE	Serial Number: 1410661331
Analyzer Range:	0-1000ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001871	1.003596	Backgd or Offset:	1.6	1.6
Calibration intercept:	0.275229	0.520000	Coeff or Slope:	1.016	1.014

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4921	78.6	799.7	802.1	0.997
As found Mid point					
As found Low point					
New cylinder response	4920	80.0	801.0	804.9	0.995
Baseline Corr As found:	802.2	Previous response	801.5	*% change	0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4920	80.0	801.0	804.1	0.996
Mid point	4960	40.0	400.5	403.0	0.994
Low point	4980	20.0	200.2	201.4	0.994
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	80.0	801.0	806.2	0.994
Average Correction Factor:					0.995

Notes: Calibration cylinder changed out. Span adjusted slightly.

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

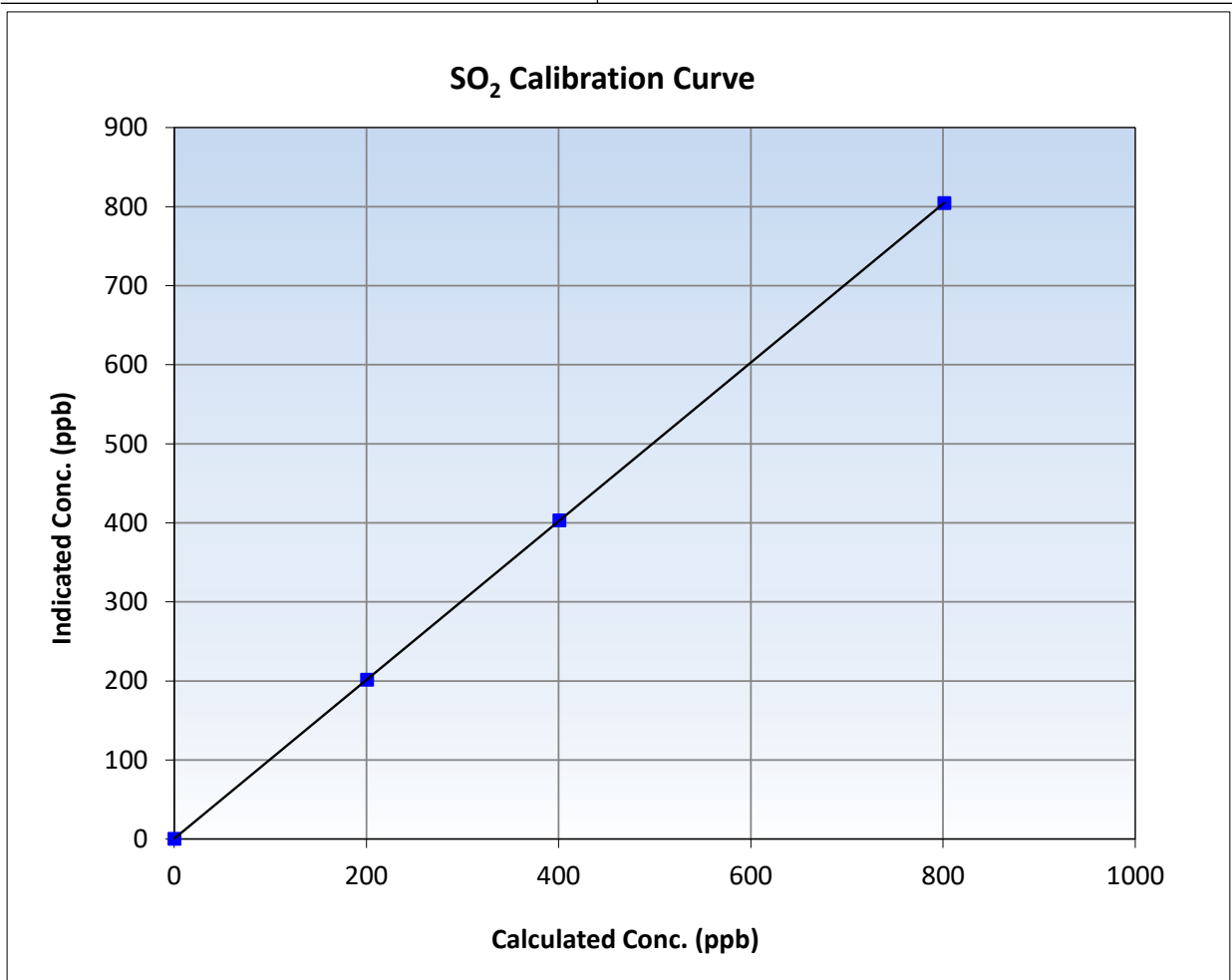
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 14, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	13:27
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1410661331

### Calibration Data

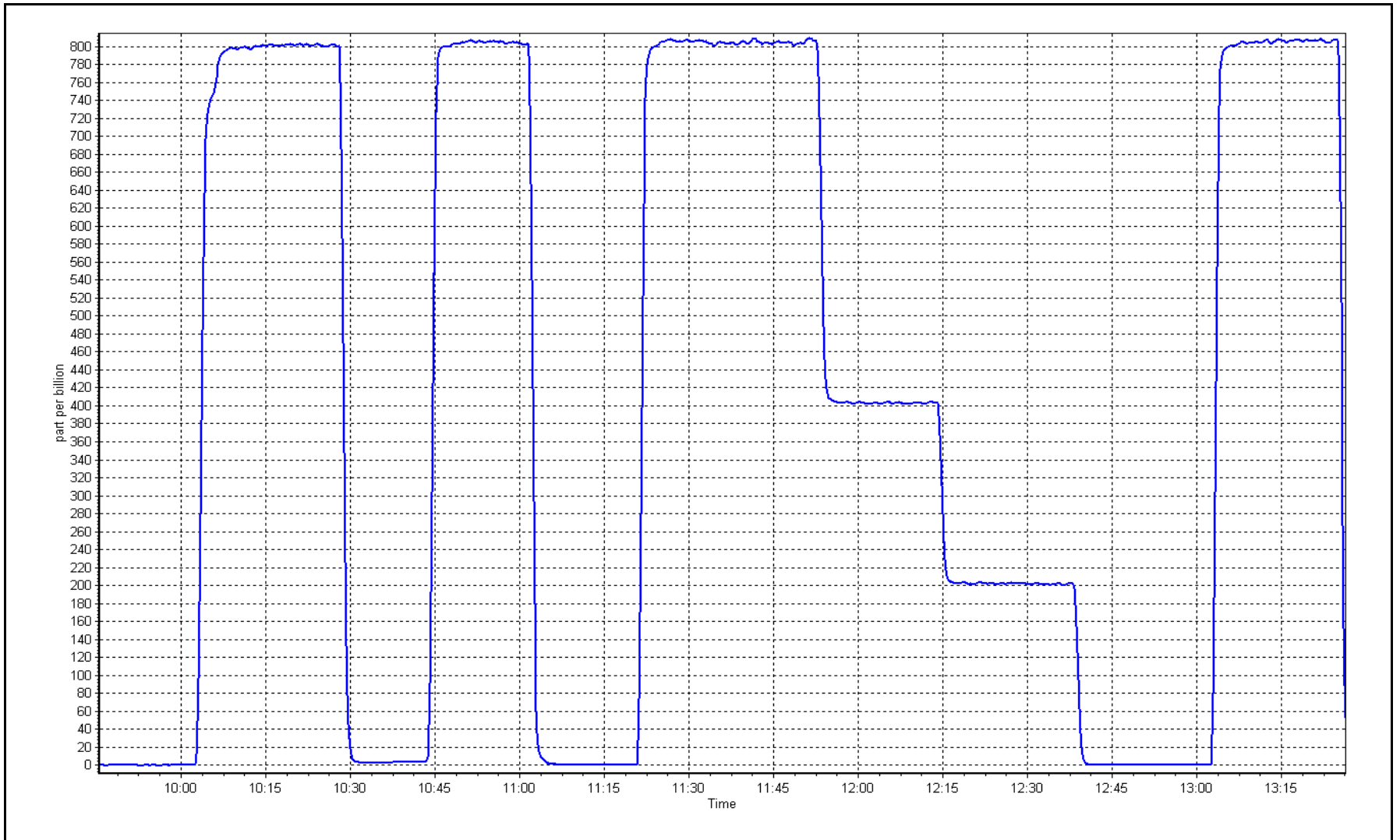
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.3	----	Correlation Coefficient	0.999999	<b>≥0.995</b>
801.0	804.1	0.9961	Slope	1.003596	<b>0.90 - 1.10</b>
400.5	403.0	0.9937	Intercept	0.520000	<b>+/-30</b>
200.2	201.4	0.9942			



SO2 Calibration Plot

Date: May 5, 2026

Location: Buffalo Viewpoint





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name: Buffalo Viewpoint	Station number: AMS 04
Calibration Date: May 7, 2026	Last Cal Date: April 20, 2026
Start time (MST): 9:53	End time (MST): 14:19
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 4.80 ppm	Cal Gas Exp Date: August 28, 2027
Cal Gas Cylinder #: DT0037528	
Removed Cal Gas Conc: 4.80 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	Diff between cyl:
Calibrator Make/Model: Teledyne API T700	Serial Number: 3808
ZAG Make/Model: Teledyne API T701H	Serial Number: 362

### Analyzer Information

Analyzer make: Thermo 43i-LTE	Analyzer serial #: 1008841400
Converter make: Global	Converter serial #: 2022-200
Analyzer Range: 0 - 100 ppb	Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001719	1.014293	Backgd or Offset:	2.18	2.18
Calibration intercept:	-0.101762	-0.041753	Coeff or Slope:	1.126	1.126

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4917	83.3	80.0	81.3	0.982
As found Mid point	4958	41.7	40.0	40.6	0.984
As found Low point	4979	20.8	20.0	20.0	0.993
New cylinder response					
Baseline Corr As found:	81.4	Prev response:	80.00	*% change:	1.7%
Baseline Corr 2nd AF pt:	40.7	AF Slope:	1.018868	AF Intercept:	-0.201831
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999991	* = > +/-5% change initiates investigation	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4917	83.3	80.0	81.1	0.986
Mid point	4958	41.7	40.0	40.5	0.989
Low point	4979	20.8	20.0	20.2	0.989
As left zero	5000	0.0	0.0	-0.1	----
As left span	4917	83.3	80.0	81.5	0.981
SO2 Scrubber Check	4920	80.0	800.0	0.0	----
Date of last scrubber change:	12-Mar-26			Ave Corr Factor	0.988
Date of last converter efficiency test:					

Notes: No adjustments needed.

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

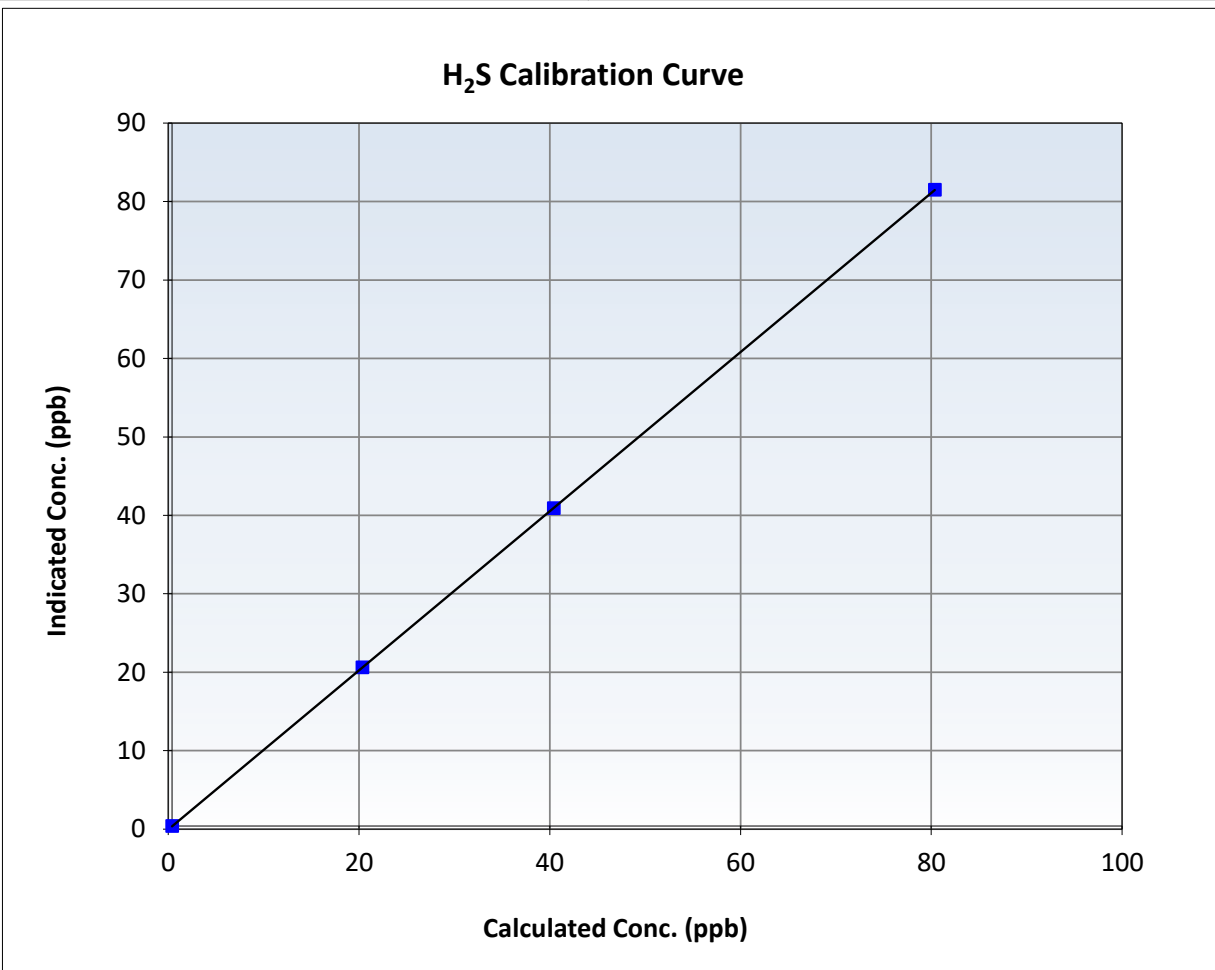
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 20, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:53	End Time (MST):	14:19
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1008841400

### Calibration Data

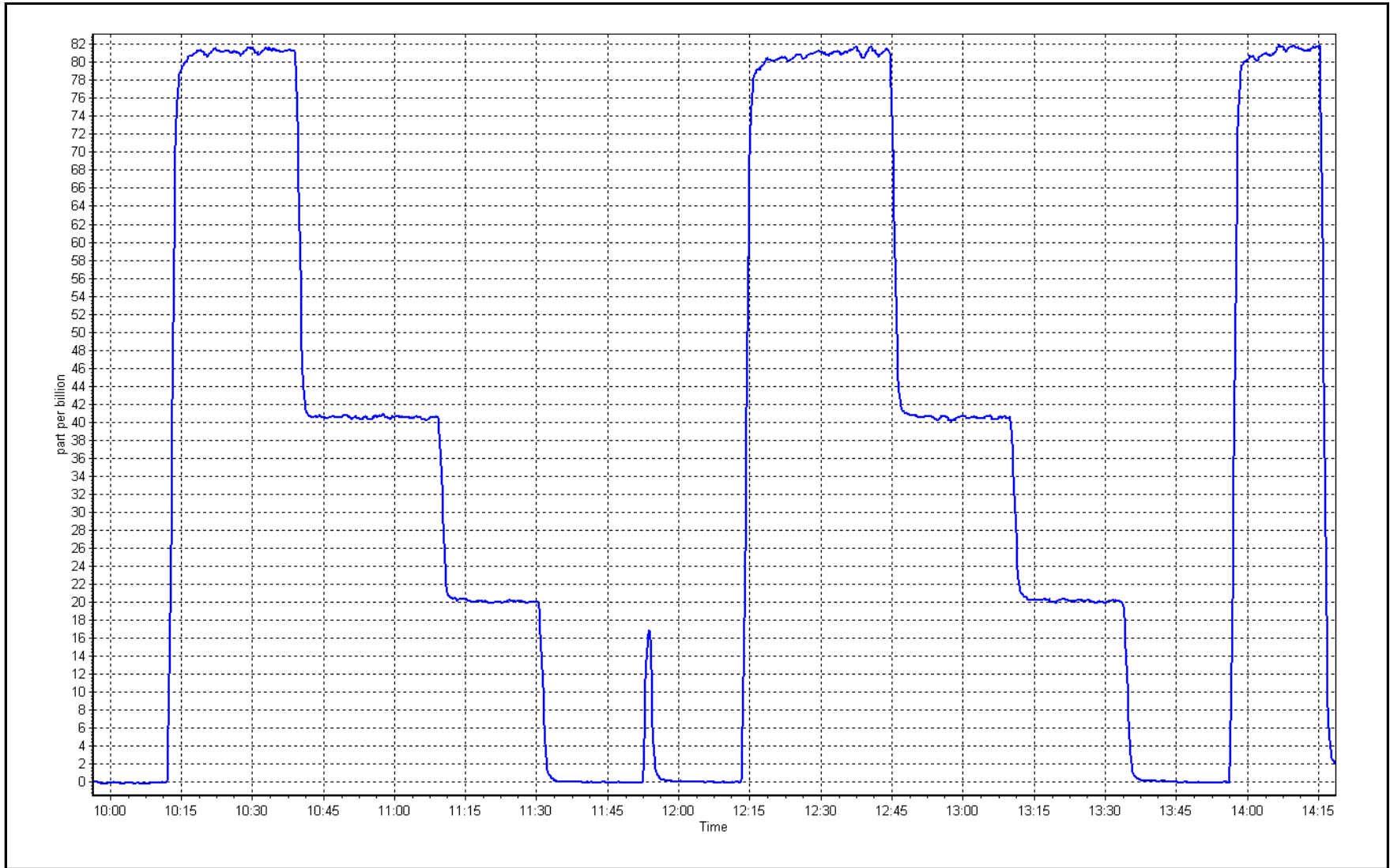
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999998	≥0.995
80.0	81.1	0.9860	Slope	1.014293	0.90 - 1.10
40.0	40.5	0.9885	Intercept	-0.041753	+/-3
20.0	20.2	0.9886			



H<sub>2</sub>S Calibration Plot

Date: May 7, 2026

Location: Buffalo Viewpoint





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Buffalo Viewpoint	Station number:	AMS 04
Calibration Date:	May 5, 2026	Last Cal Date:	April 14, 2026
Start time (MST):	9:45	End time (MST):	13:27
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC147416	Cal Gas Expiry Date:	January 5, 2029
CH4 Cal Gas Conc.	498.9 ppm	CH4 Equiv Conc.	1070.9 ppm
C3H8 Cal Gas Conc.	208.0 ppm		
Removed Gas Cert:	CC446753	Removed Gas Expiry:	March 10, 2031
Removed CH4 Conc.	497.2 ppm	CH4 Equiv Conc.	1058.2 ppm
Removed C3H8 Conc.	204.0 ppm	Diff between cyl (THC):	-1.7%
Diff between cyl (CH <sub>4</sub> ):	-0.1%	Diff between cyl (NM):	-3.2%
Calibrator Model:	Teledyne API T700	Serial Number:	3808
Zero Air Gen model:	Teledyne API T701	Serial Number:	362

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320038
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.33E-04	2.36E-04	4.42E-05	4.60E-05
CH4 Retention time:	11.2	11.4	199327	198789
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.6	16.64	16.50	1.008
As found Mid point					
As found Low point					
New cylinder response	4920	80.0	17.13	16.71	1.025
Baseline Corr AF:	16.50	Prev response	16.66	*% change	-0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.0	17.13	17.13	1.000
Mid point	4960	40.0	8.57	8.58	0.998
Low point	4980	20.0	4.28	4.28	1.002
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	17.13	17.23	0.995
Average Correction Factor					1.000

Notes: H2 cylinder changed out before calibration since flame was out. Cal cylinder changed out. Span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.6	8.82	8.76	1.007
As found Mid point					
As found Low point					
New cylinder response	4920	80.0	9.15	8.81	1.039
Baseline Corr AF:	8.76	Prev response	8.82	*% change	-0.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.0	9.15	9.15	1.001
Mid point	4960	40.0	4.58	4.60	0.996
Low point	4980	20.0	2.29	2.30	0.995
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	9.15	9.21	0.994
Average Correction Factor					0.997

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.6	7.82	7.74	1.010
As found Mid point					
As found Low point					
New cylinder response	4920	80.0	7.98	7.89	1.011
Baseline Corr AF:	7.74	Prev response	7.83	*% change	-1.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.0	7.98	7.98	1.000
Mid point	4960	40.0	3.99	3.99	1.001
Low point	4980	20.0	2.00	1.98	1.010
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	7.98	8.02	0.995
Average Correction Factor					1.004

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.001646	0.999827
THC Cal Offset:	-0.008140	0.001000
CH <sub>4</sub> Cal Slope:	1.002960	1.000659
CH <sub>4</sub> Cal Offset:	-0.007505	-0.008600
NMHC Cal Slope:	1.000196	0.999013
NMHC Cal Offset:	-0.000036	0.010200

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

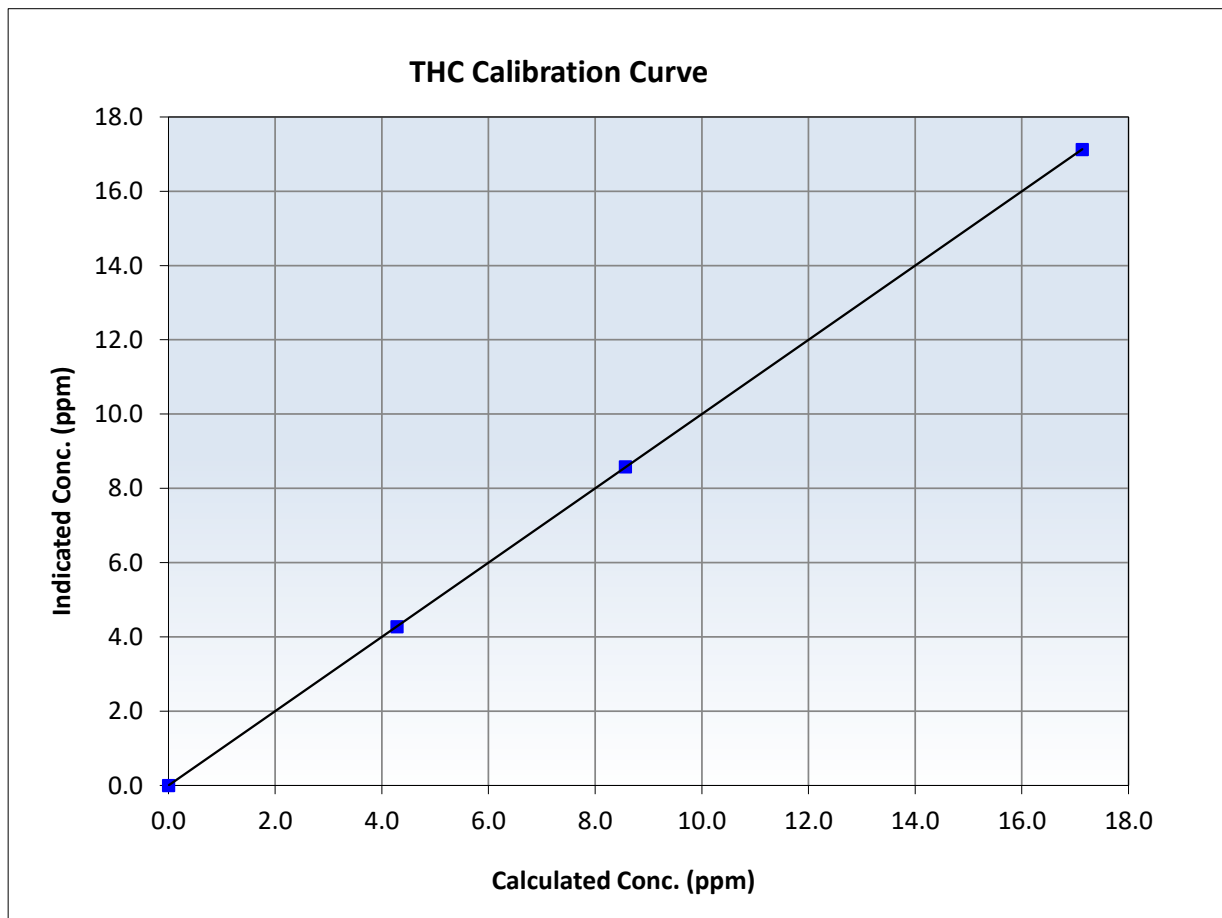
## THC Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 14, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	13:27
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320038

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999998	<i>≥0.995</i>
17.13	17.13	1.0004	Slope	0.999827	<i>0.90 - 1.10</i>
8.57	8.58	0.9983	Intercept	0.001000	<i>+/-0.5</i>
4.28	4.28	1.0020			





# Wood Buffalo Environmental Association

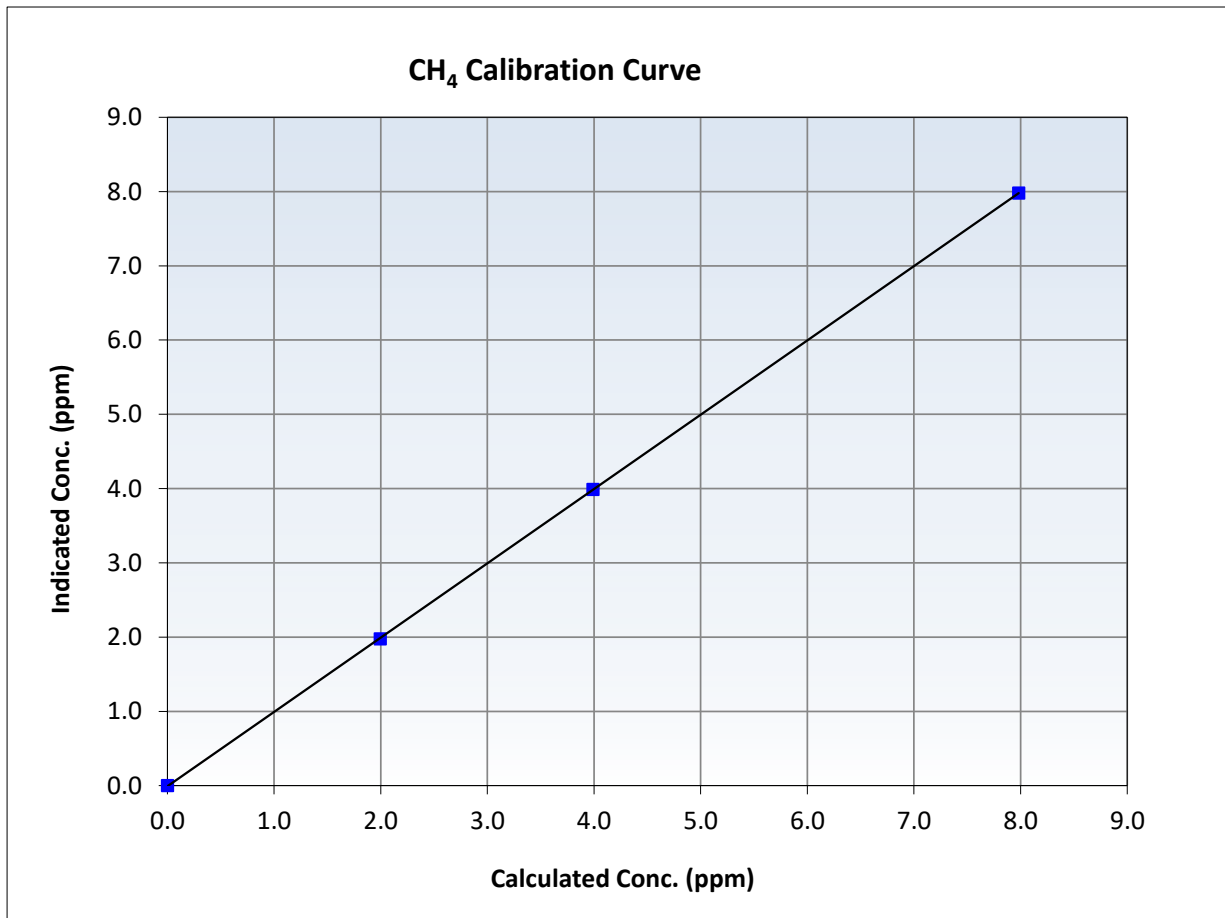
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 14, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	13:27
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320038

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999992	<i>≥0.995</i>
7.98	7.98	1.0002	Slope	1.000659	<i>0.90 - 1.10</i>
3.99	3.99	1.0008	Intercept	-0.008600	<i>+/-0.5</i>
2.00	1.98	1.0104			





# Wood Buffalo Environmental Association

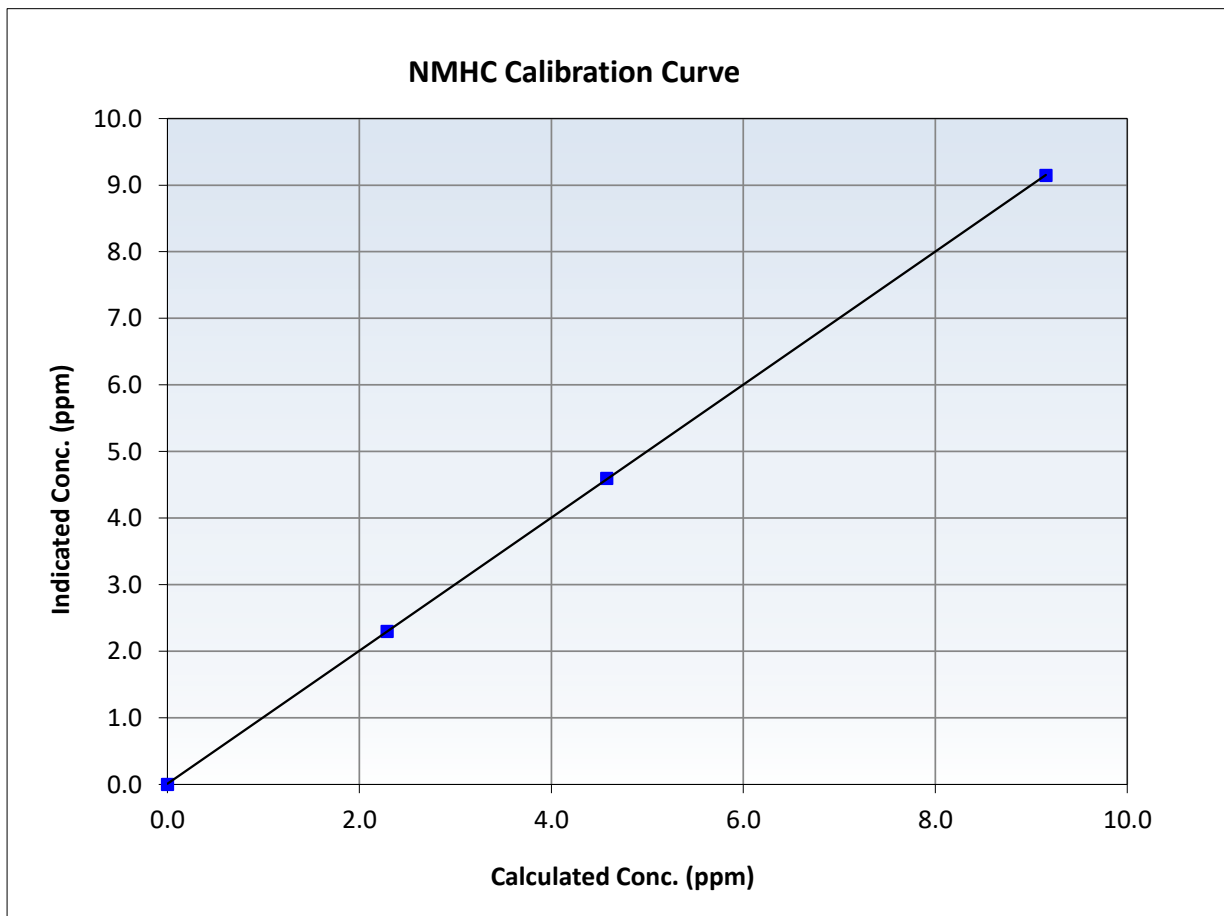
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 14, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	13:27
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320038

### Calibration Data

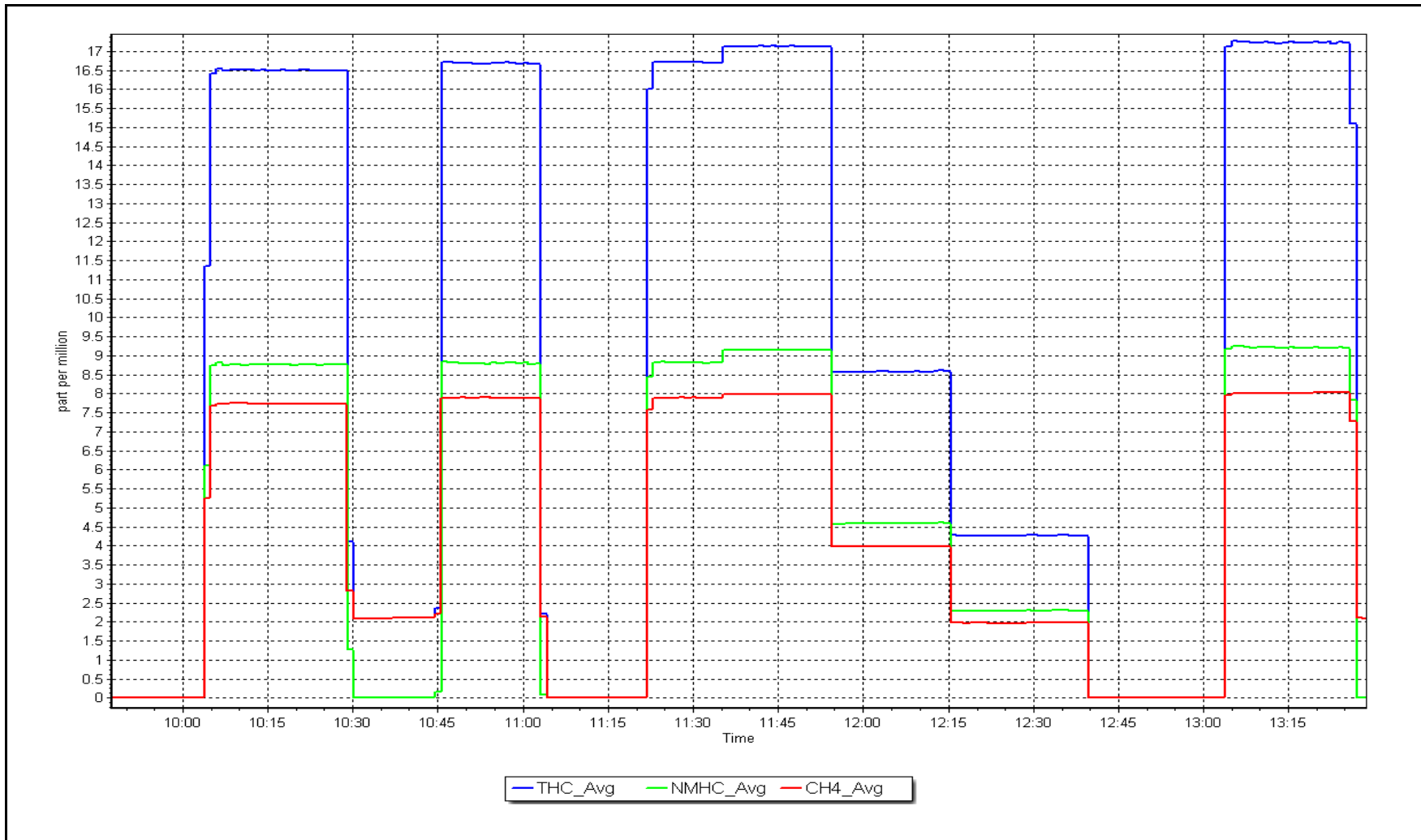
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999991	<i>≥0.995</i>
9.15	9.15	1.0008	Slope	0.999013	<i>0.90 - 1.10</i>
4.58	4.60	0.9956	Intercept	0.010200	<i>+/-0.5</i>
2.29	2.30	0.9948			



NMHC Calibration Plot

Date: May 5, 2026

Location: Buffalo Viewpoint





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Buffalo Viewpoint	Station number:	AMS 04
Calibration Date:	May 22, 2026	Last Cal Date:	May 5, 2026
Start time (MST):	10:32	End time (MST):	12:21
Reason:	Cylinder Change		

### Calibration Standards

Gas Cert Reference:	CC147416	Cal Gas Expiry Date:	January 5, 2029
CH4 Cal Gas Conc.	498.9 ppm	CH4 Equiv Conc.	1070.9 ppm
C3H8 Cal Gas Conc.	208.0 ppm		
Removed Gas Cert:	CC446753	Removed Gas Expiry:	March 10, 2031
Removed CH4 Conc.	497.2 ppm	CH4 Equiv Conc.	1058.2 ppm
Removed C3H8 Conc.	204.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3808
Zero Air Gen model:	Teledyne API T701	Serial Number:	362

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320038
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.36E-04	2.36E-04	NMHC SP Ratio:	4.60E-05	4.60E-05
CH4 Retention time:	11.4	11.4	NMHC Peak Area:	198789	198789
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.6	16.64	17.15	0.970
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.15	Prev response	16.63	*% change	3.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	17.13	17.06	1.004
Average Correction Factor					1.004

Notes: Pressure sensor added to H2 regulator. N2 changed out.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.6	8.82	9.12	0.968
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.12	Prev response	8.82	*% change	3.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	9.15	9.06	1.010
Average Correction Factor					

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.6	7.82	8.04	0.973
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.04	Prev response	7.81	*% change	2.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.0	7.98	8.01	0.997
Average Correction Factor					

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.999827	
THC Cal Offset:	0.001000	
CH <sub>4</sub> Cal Slope:	1.000659	
CH <sub>4</sub> Cal Offset:	-0.008600	
NMHC Cal Slope:	0.999013	
NMHC Cal Offset:	0.010200	

Calibration Performed By: Aswin Sasi Kumar

NMHC Calibration Plot

Date: May 22, 2026

Location: Buffalo Viewpoint





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Buffalo Viewpoint  
 Station number: AMS 04  
 Calibration Date: May 19, 2026  
 Last Cal Date: April 15, 2026  
 Start time (MST): 9:45  
 End time (MST): 14:45  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC324979  
 NOX Cal Gas Conc: 48.90 ppm  
 Removed Cylinder #:  
 Removed Gas NOX Conc: 48.90 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: November 3, 2032  
 NO Cal Gas Conc: 48.80 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 48.80 ppm  
 NO gas Diff:  
 Serial Number: 3808  
 Serial Number: 362

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.4	0.3	0.0	----	----
AF High point	4918	81.8	800.0	798.4	1.6	783.3	780.6	2.7	1.0219	1.0232
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 800.0 ppb	NO = 798.1 ppb				<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -2.2%	
Baseline Corr 1st pt	NO <sub>x</sub> = 782.9 ppb	NO = 780.3 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -2.3%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1218153357

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.000152	0.997209
NO <sub>x</sub> Cal Offset:	-0.113548	0.766108
NO Cal Slope:	1.001574	0.999913
NO Cal Offset:	-1.594500	-0.914509
NO <sub>2</sub> Cal Slope:	1.003983	1.005441
NO <sub>2</sub> Cal Offset:	0.151329	0.159348

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.920	0.940	NO bkgnd or offset:	6.3	6.4
NOX coeff or slope:	0.993	0.993	NOX bkgnd or offset:	6.3	6.5
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	235.1	233.3

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.5	0.5	0.1	----	----
High point	4918	81.8	800.0	798.4	1.6	798.2	798.0	0.2	1.0023	1.0005
Mid point	4959	40.9	400.0	399.2	0.8	400.5	397.9	2.5	0.9988	1.0032
Low point	4980	20.4	199.5	199.1	0.4	199.5	196.5	2.9	1.0000	1.0132
As left zero	5000	0.0	0.0	0.5	-0.5	0.5	0.5	0.0	----	----
As left span	4918	81.8	800.0	400.9	800.0	800.0	400.9	399.4	1.0000	1.0000
Average Correction Factor									1.0004	1.0056

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	792.2	401.6	392.2	394.3	0.9948	100.5%
Mid GPT point	792.2	596.7	197.1	199.0	0.9906	100.9%
Low GPT point	792.2	693.2	100.6	101.0	0.9964	100.4%
Average Correction Factor					0.9939	100.6%

Notes:

Span adjusted.

Calibration Performed By:

Aswin Sasi Kumar



# Wood Buffalo Environmental Association

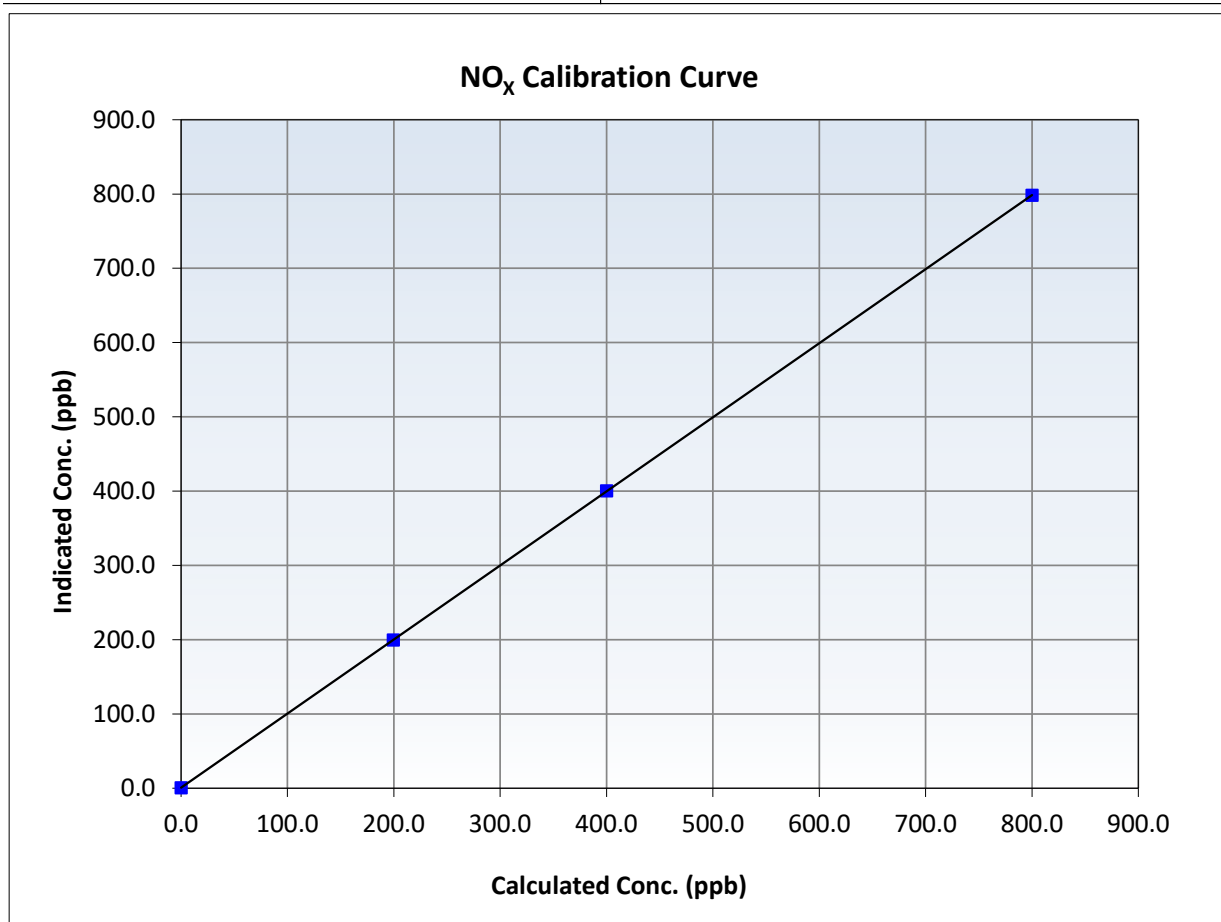
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 15, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	14:45
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153357

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.5	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
800.0	798.2	1.0023	Slope	0.997209	<i>0.90 - 1.10</i>
400.0	400.5	0.9988	Intercept	0.766108	<i>+/-20</i>
199.5	199.5	1.0000			





# Wood Buffalo Environmental Association

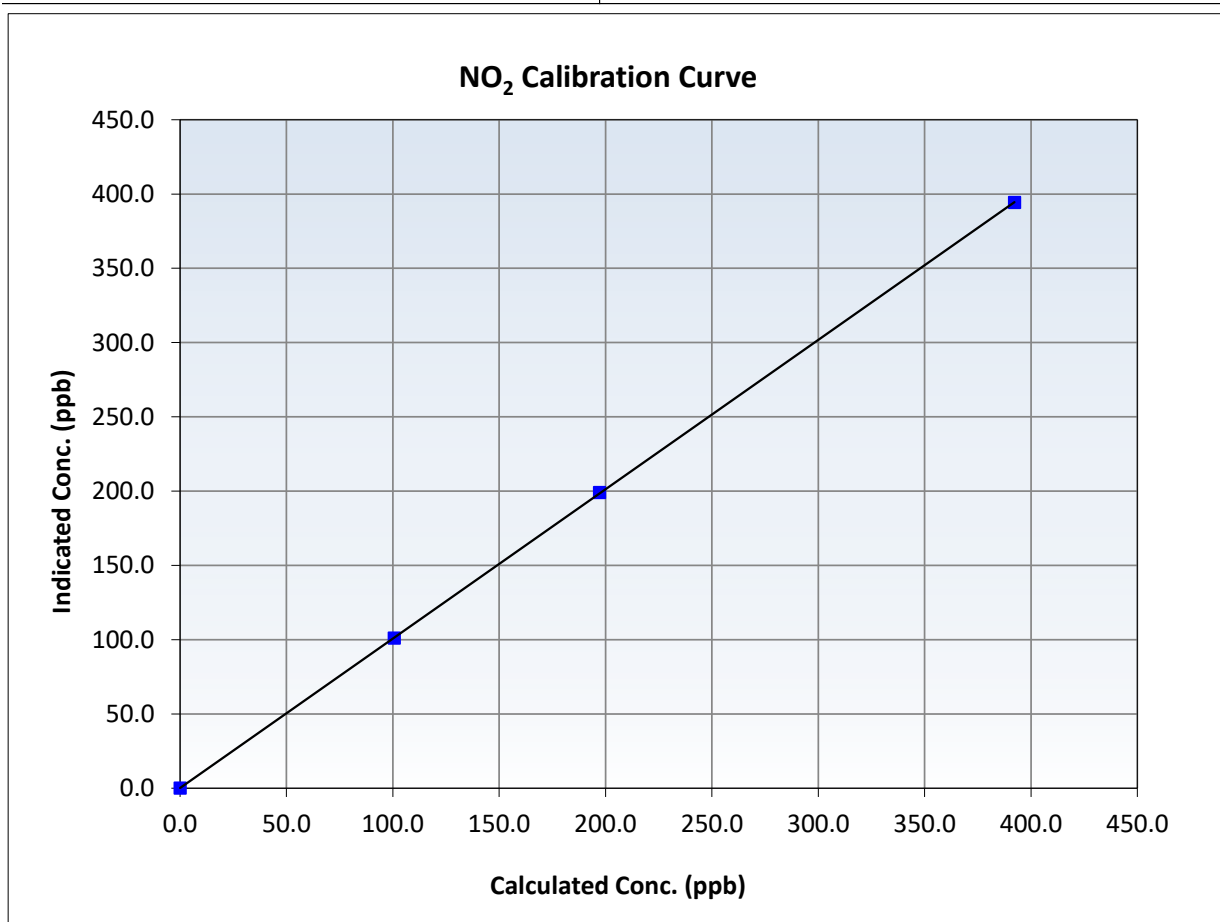
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 15, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	14:45
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153357

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999993	<i>≥0.995</i>
392.2	394.3	0.9948	Slope	1.005441	<i>0.90 - 1.10</i>
197.1	199.0	0.9906	Intercept	0.159348	<i>+/-20</i>
100.6	101.0	0.9964			





# Wood Buffalo Environmental Association

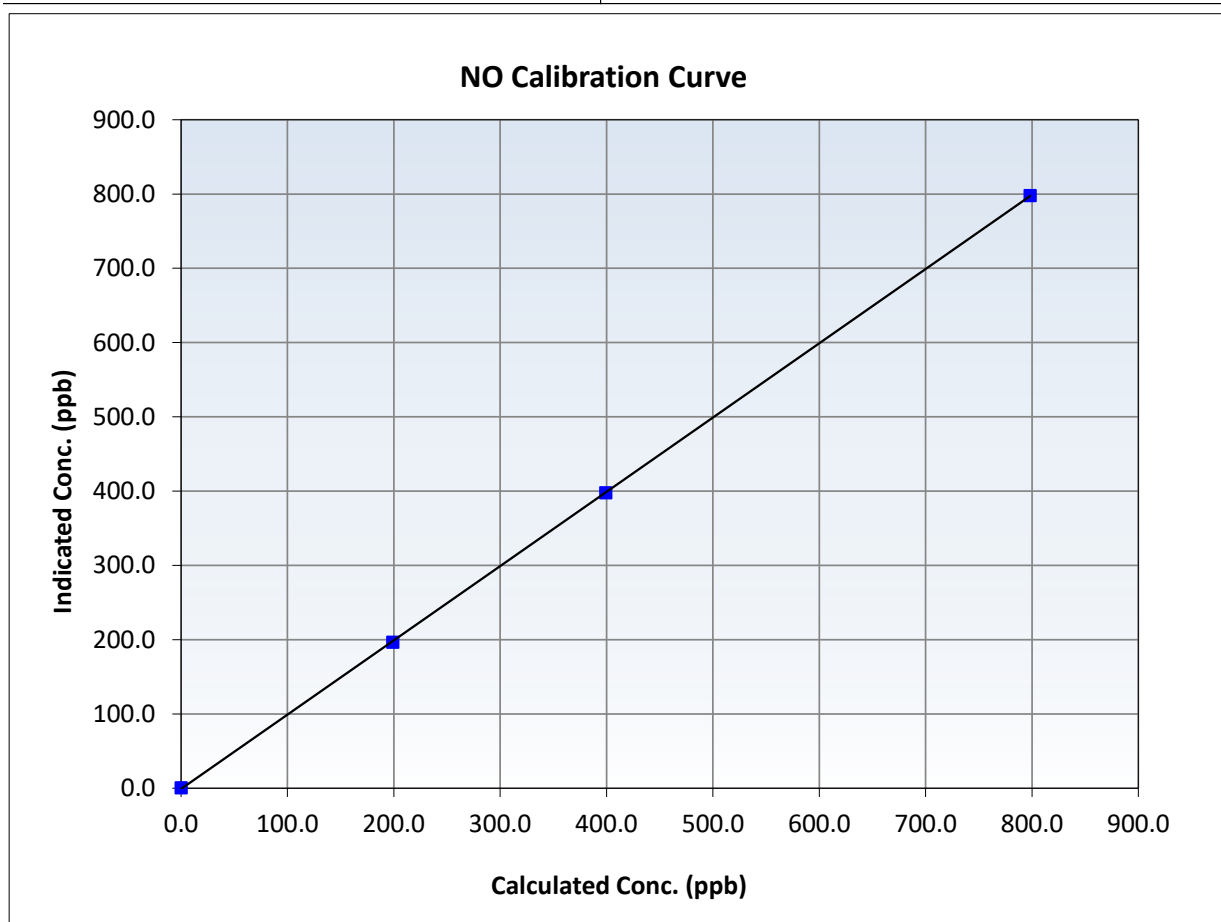
## NO Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 15, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:45	End Time (MST):	14:45
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153357

### Calibration Data

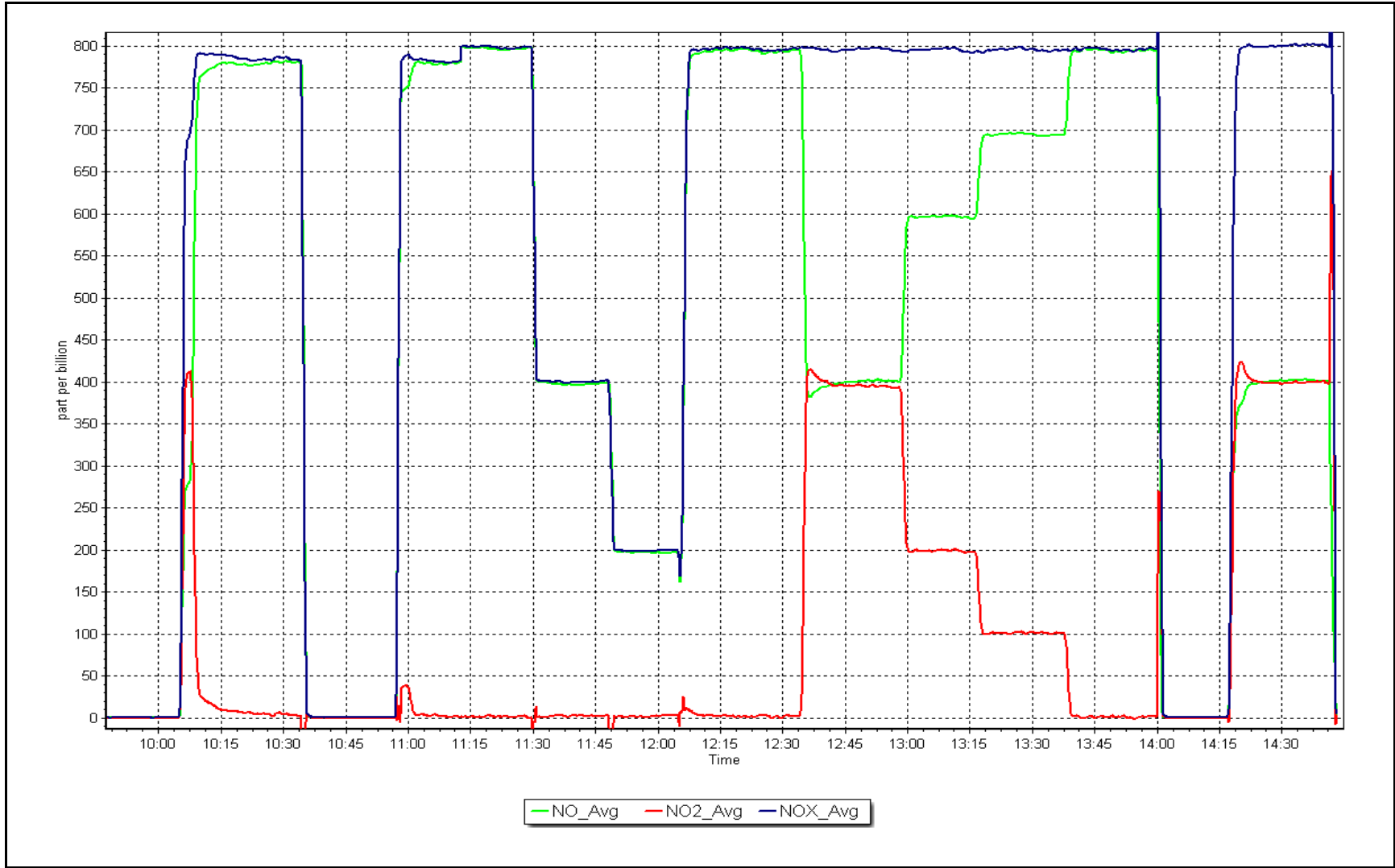
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.5	----	Correlation Coefficient	0.999985	<i>≥0.995</i>
798.4	798.0	1.0005	Slope	0.999913	<i>0.90 - 1.10</i>
399.2	397.9	1.0032	Intercept	-0.914509	<i>+/-20</i>
199.1	196.5	1.0132			



NO<sub>x</sub> Calibration Plot

Date: May 19, 2026

Location: Buffalo Viewpoint





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Buffalo Viewpoint	Station number:	AMS 04
Calibration Date:	May 4, 2026	Last Cal Date:	April 10, 2026
Start time (MST):	9:58	End time (MST):	13:26
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	3808
Calibrator Make/Model:	Teledyne API T700	Serial Number:	362
ZAG Make/Model:	Teledyne API T701H		

### Analyzer Information

Analyzer make:	Teledyne API T400	Analyzer serial #:	2961
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002000	1.001886	Backgd or Offset:	-0.2	-0.1
Calibration intercept:	0.300000	-0.080000	Coeff or Slope:	1.020	1.020

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	5000	1071.2	400.0	399.5	1.001
As found Mid point					
As found Low point					
Baseline Corr As found:	399.7	Previous response	401.1	*% change	-0.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	5000	1072.6	400.0	400.7	0.998
Mid point	5000	864.1	200.0	200.1	1.000
Low point	5000	742.1	100.0	100.4	0.996
As left zero	5000	0.0	0.0	-0.4	----
As left span	5000	1072.4	400.0	403.6	0.991
Average Correction Factor					<b>0.998</b>

Notes: Zero adjusted.

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

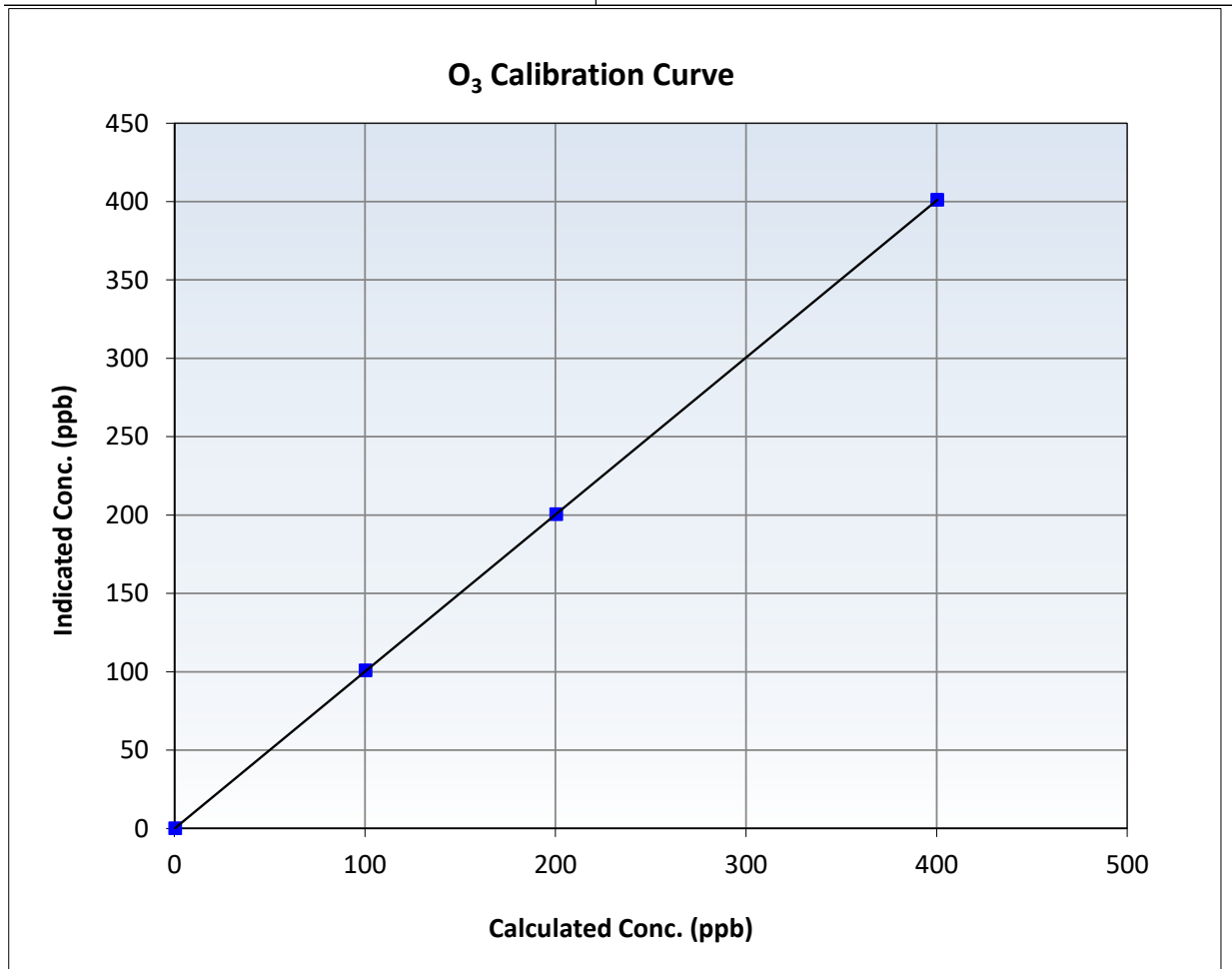
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 4, 2026	Previous Calibration:	April 10, 2026
Station Name:	Buffalo Viewpoint	Station Number:	AMS 04
Start Time (MST):	9:58	End Time (MST):	13:26
Analyzer make:	Teledyne API T400	Analyzer serial #:	2961

### Calibration Data

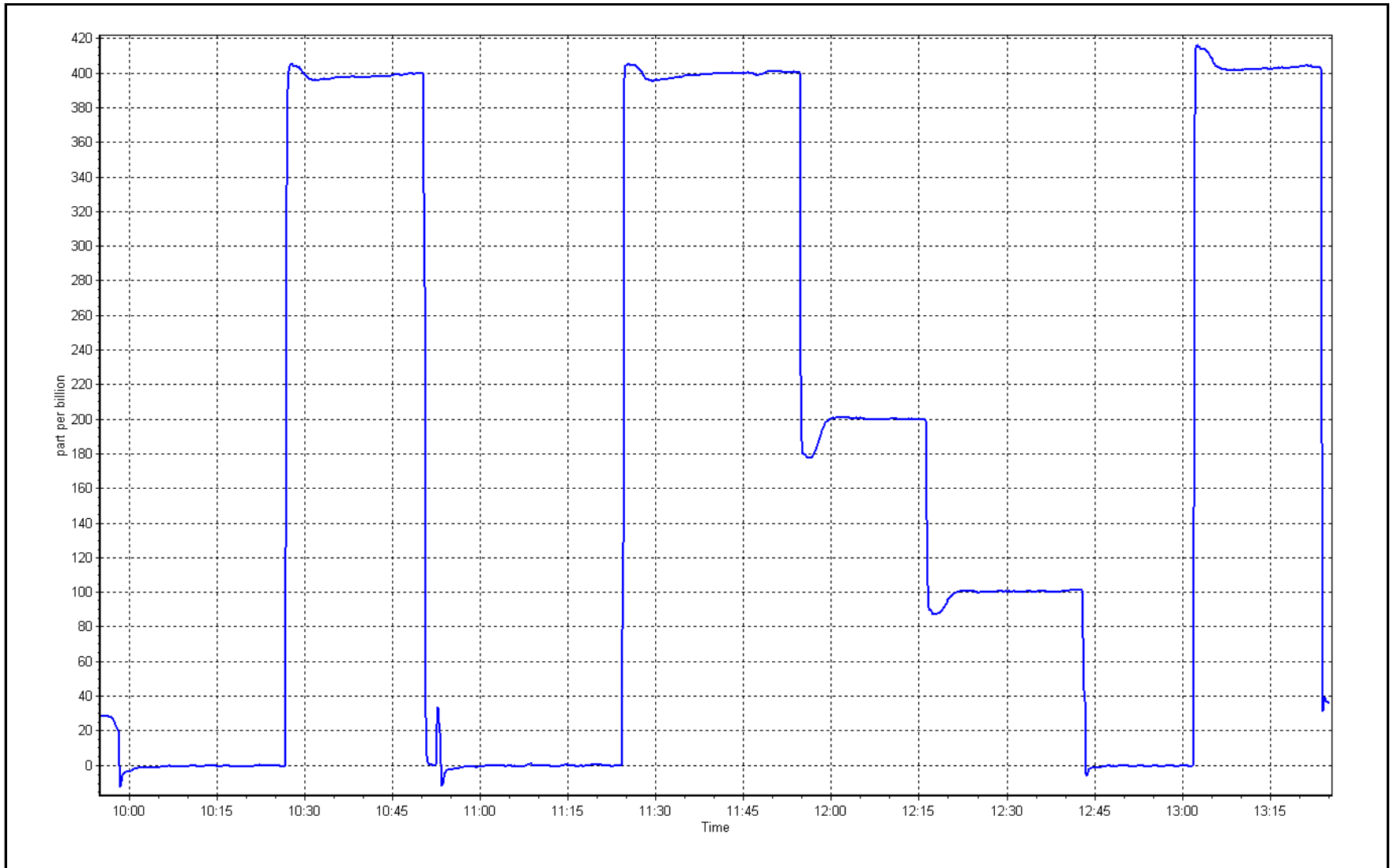
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999998	<span style="color: red;">≥0.995</span>
400.0	400.7	0.9983	Slope	1.001886	<span style="color: red;">0.90 - 1.10</span>
200.0	200.1	0.9995	Intercept	-0.080000	<span style="color: red;">+/- 5</span>
100.0	100.4	0.9960			



O<sub>3</sub> Calibration Plot

Date: May 4, 2026

Location: Buffalo Viewpoint





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Buffalo Viewpoint Station number: AMS 04  
 Calibration Date: May 22, 2026 Last Cal Date: April 20, 2026  
 Start time (MST): 12:15 End time (MST): 13:12

Analyzer Make: Teledyne API T640 S/N: 321  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388748  
 Temp/RH standard: Alicat FP-25BT S/N: 388748

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	22.2	22.4	22.2	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	722.8	724.2	722.8	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	4.96	4.93	4.96	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	35	----	35	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	6.1	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: **10.9** Expiry Date: 30-Jan-27  
 Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: \_\_\_\_\_ March 12, 2026  
 Date Disposable Filter Changed: \_\_\_\_\_ March 12, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: \_\_\_\_\_ December 18, 2025  
 Date RH/T Sensor Cleaned: \_\_\_\_\_ December 18, 2025

Monthly checks done.

Notes:

Calibration by: Aswin Sasi Kumar



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS05  
MANNIX  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Mannix	Station number:	AMS 05
Calibration Date:	May 11, 2026	Last Cal Date:	April 15, 2026
Start time (MST):	9:22	End time (MST):	12:40
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.06	ppm	Cal Gas Exp Date:	October 22, 2032
Cal Gas Cylinder #:	CC308040			
Removed Cal Gas Conc:	50.06	ppm	Rem Gas Exp Date:	October 22, 2032
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Model:	API T700		Serial Number:	5470
Zero Air Gen Model:	API T701		Serial Number:	361

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1008841399
Analyzer Range:	1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003192	0.998564	Backgd or Offset:	11.5	11.5
Calibration intercept:	-2.516303	-1.796000	Coeff or Slope:	0.923	0.923

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4920	79.9	800.0	787.4	1.016
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	787.7	Previous response	800.0	*% change	-1.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4920	79.9	800.0	797.8	1.003
Mid point	4960	40.0	400.5	397.5	1.007
Low point	4980	20.0	200.2	196.3	1.020
As left zero	5000	0.0	0.0	0.0	----
As left span	4920	79.9	800.0	800.3	1.000
Average Correction Factor:					1.010

Notes: Sample inlet filter was changed after as founds. No adjustments performed.

Calibration Performed By: Kelly Baragar



# Wood Buffalo Environmental Association

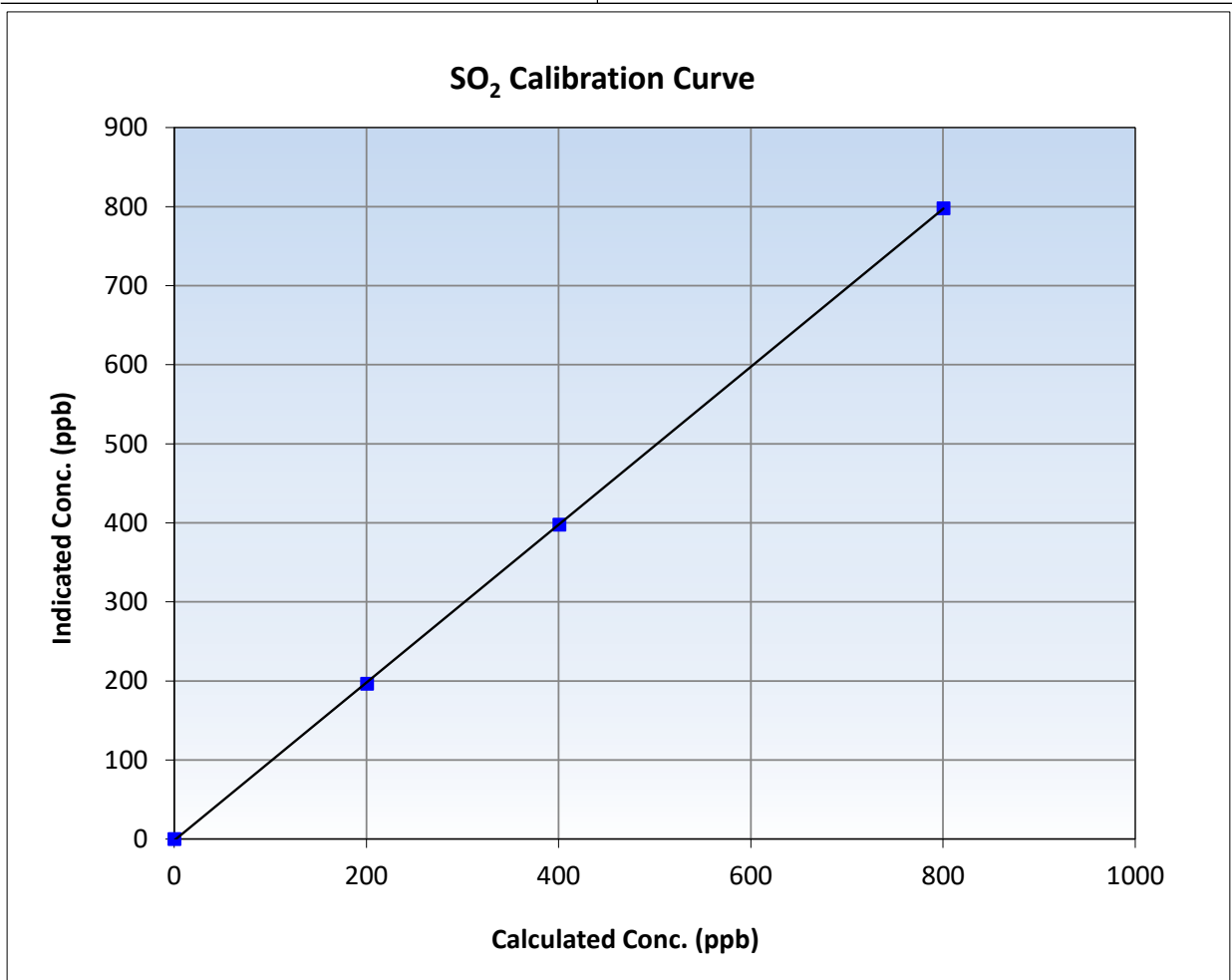
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 15, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	9:22	End Time (MST):	12:40
Analyzer make:	Thermo 43i	Analyzer serial #:	1008841399

### Calibration Data

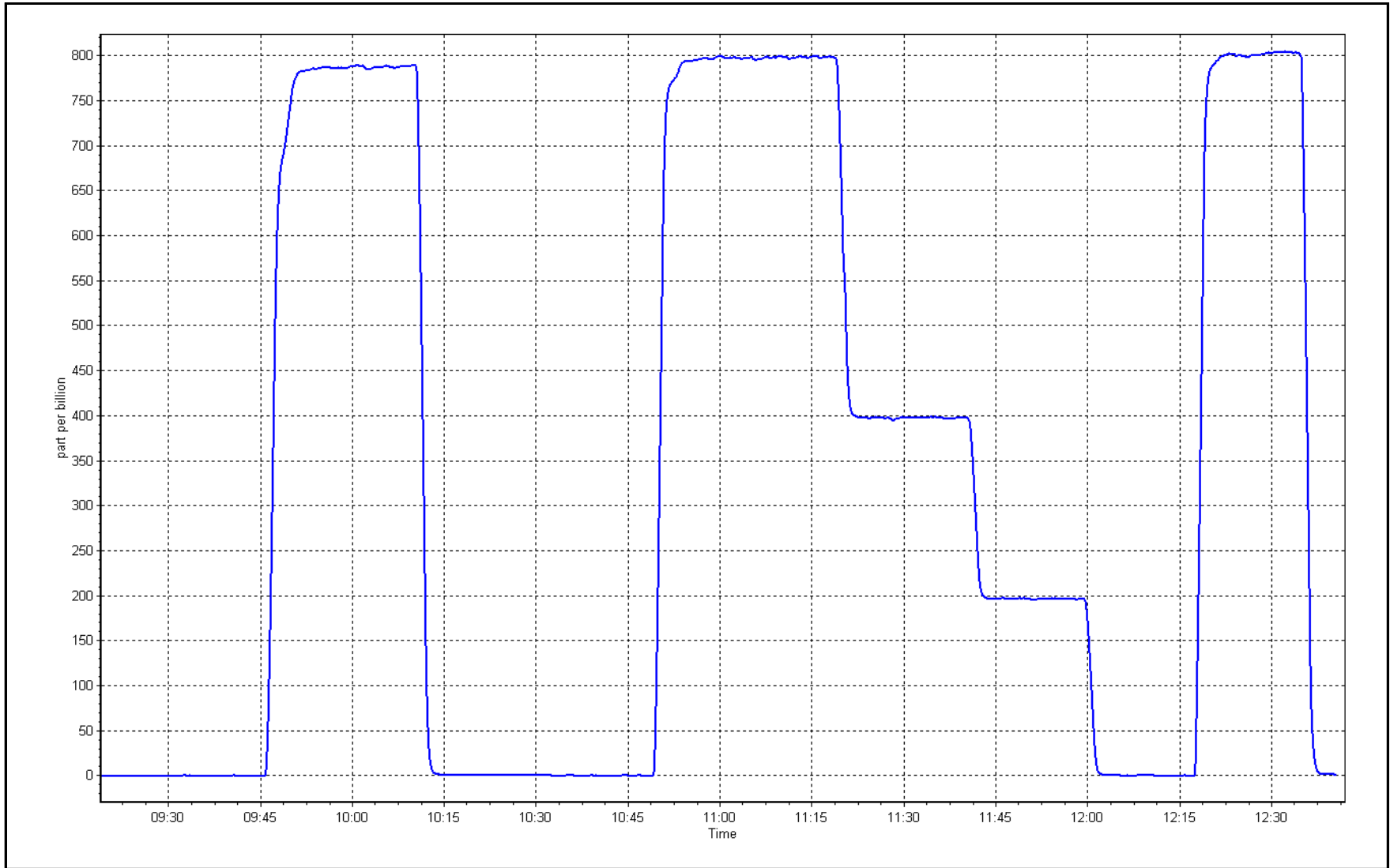
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	-0.1	----	Correlation Coefficient	0.999979	<b>≥0.995</b>
800.0	797.8	1.0027	Slope	0.998564	<b>0.90 - 1.10</b>
400.5	397.5	1.0075	Intercept	-1.796000	<b>+/-30</b>
200.2	196.3	1.0201			



SO2 Calibration Plot

Date: May 11, 2026

Location: Mannix





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Mannix	Station number:	AMS 05
Calibration Date:	May 21, 2026	Last Cal Date:	April 16, 2026
Start time (MST):	10:21	End time (MST):	15:14
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.96	ppm	Cal Gas Exp Date:	November 15, 2026
Cal Gas Cylinder #:	DT0037363			
Removed Cal Gas Conc:	4.96	ppm	Rem Gas Exp Date:	N/A
Removed Gas Cyl #:	N/A		Diff between cyl:	
Calibrator Make/Model:	API T700		Serial Number:	5470
ZAG Make/Model:	API T701		Serial Number:	361

### Analyzer Information

Analyzer make:	Thermo 43iQ	Analyzer serial #:	1200326169
Converter make:	Global	Converter serial #:	2022-225
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.993254	0.992540	Backgd or Offset:	1.24	1.24
Calibration intercept:	0.142478	0.042438	Coeff or Slope:	1.020	1.020

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4919	80.6	80.0	80.0	1.001
As found Mid point	4960	40.3	40.0	39.9	1.004
As found Low point	4980	20.2	20.0	20.0	1.007
New cylinder response					
Baseline Corr As found:	79.9	Prev response:	79.56	*% change:	0.4%
Baseline Corr 2nd AF pt:	39.8	AF Slope:	0.999547	AF Intercept:	0.022267
Baseline Corr 3rd AF pt:	19.9	AF Correlation:	0.999995	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4919	80.6	80.0	79.4	1.007
Mid point	4960	40.3	40.0	39.8	1.004
Low point	4980	20.2	20.0	19.8	1.012
As left zero	5000	0.0	0.0	0.2	----
As left span	4919	80.6	80.0	79.7	1.003
SO2 Scrubber Check	4920	80.3	803.0	0.0	----
Date of last scrubber change:				Ave Corr Factor	1.008
Date of last converter efficiency test:					

Notes: Changed the sample inlet filter after the multi point as founds. Scrubber check done after the calibrator zero. No adjustments made.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

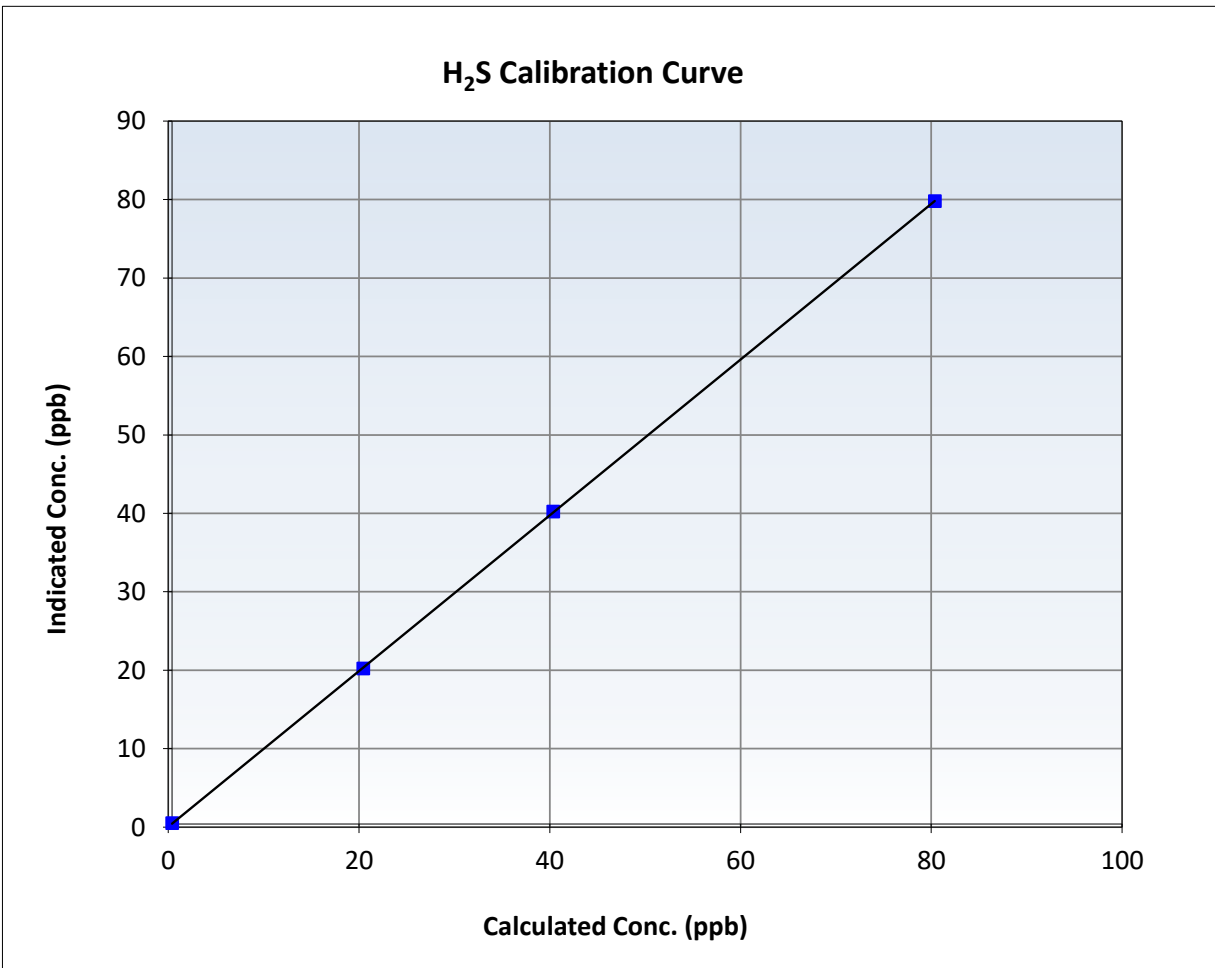
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 16, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	10:21	End Time (MST):	15:14
Analyzer make:	Thermo 43iQ	Analyzer serial #:	1200326169

### Calibration Data

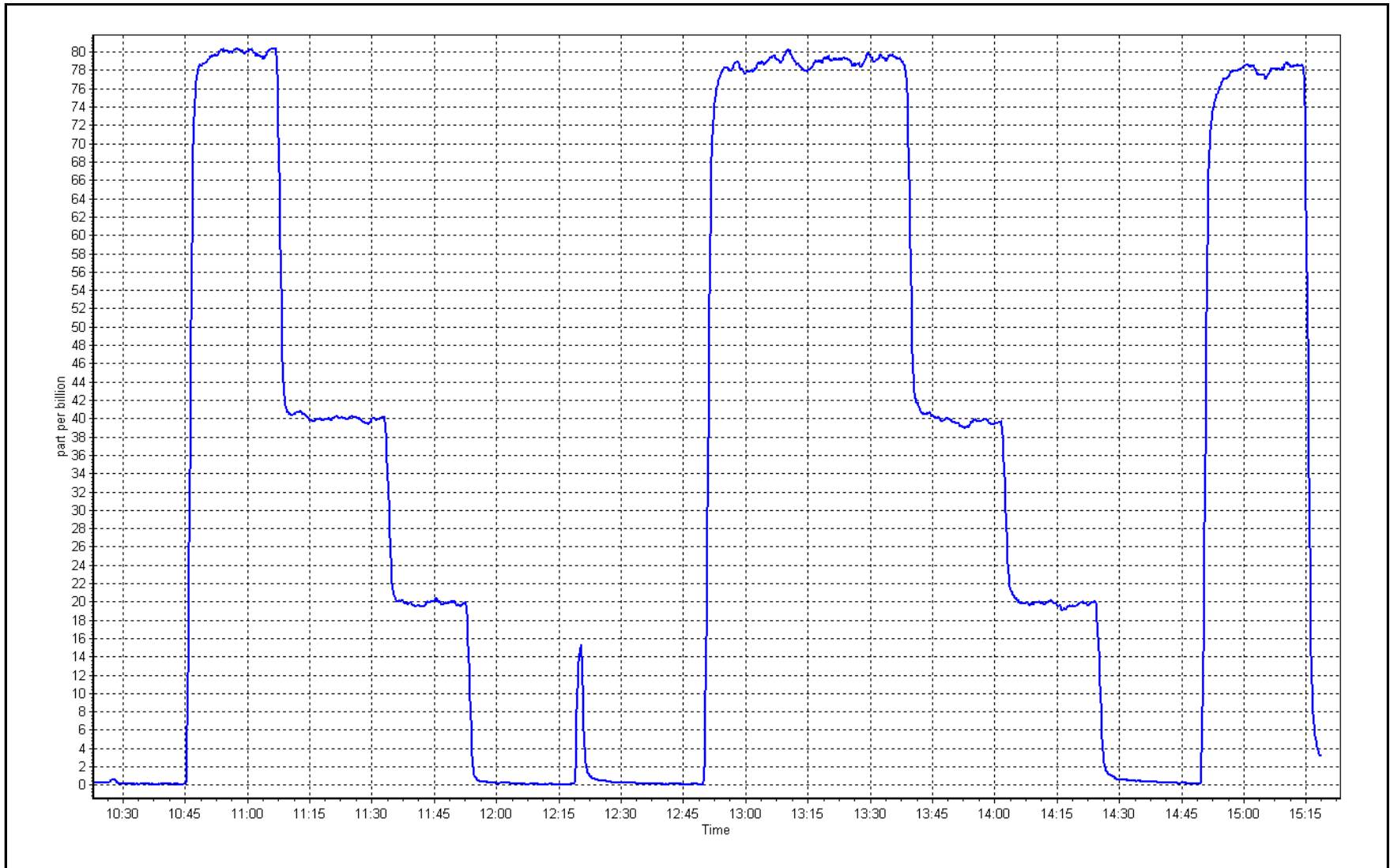
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999992	≥0.995
80.0	79.4	1.0071	Slope	0.992540	0.90 - 1.10
40.0	39.8	1.0044	Intercept	0.042438	+/-3
20.0	19.8	1.0120			



H<sub>2</sub>S Calibration Plot

Date: May 21, 2026

Location: Mannix





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Mannix	Station number:	AMS 05
Calibration Date:	May 11, 2026	Last Cal Date:	April 15, 2026
Start time (MST):	9:22	End time (MST):	12:40
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC308040	Cal Gas Expiry Date:	October 22, 2032
CH4 Cal Gas Conc.	500.3 ppm	CH4 Equiv Conc.	1047.6 ppm
C3H8 Cal Gas Conc.	199.0 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	500.3 ppm	CH4 Equiv Conc.	1047.6 ppm
Removed C3H8 Conc.	199.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5470
Zero Air Gen model:	API T701	Serial Number:	361

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 15005164381
THC Range: 0 - 20 ppm	NMHC/CH4 Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.62E-04	2.64E-04	NMHC SP Ratio:	5.01E-05	5.11E-05
CH4 Retention time:	13.9	13.9	NMHC Peak Area:	174527	171353
Zero Chromatogram:	OFF	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.9	16.74	16.60	1.009
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.60	Prev response	16.76	*% change	-1.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.9	16.74	16.76	0.999
Mid point	4960	40.0	8.38	8.34	1.005
Low point	4980	20.0	4.19	4.13	1.014
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.9	16.74	16.83	0.994
Average Correction Factor					1.006

Notes: Sample inlet filter was changed and H2/N2 replaced after as founds. Slight span adjustment performed.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.9	8.75	8.68	1.008
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.68	Prev response	8.77	*% change	-1.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.9	8.75	8.75	1.000
Mid point	4960	40.0	4.38	4.35	1.006
Low point	4980	20.0	2.19	2.16	1.013
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.9	8.75	8.82	0.991
Average Correction Factor					1.007

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.9	7.99	7.92	1.009
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.92	Prev response	7.99	*% change	-0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.9	7.99	8.01	0.998
Mid point	4960	40.0	4.00	3.99	1.004
Low point	4980	20.0	2.00	1.97	1.015
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.9	7.99	8.01	0.998
Average Correction Factor					1.005

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.003209	1.001933
THC Cal Offset:	-0.037711	-0.035112
CH <sub>4</sub> Cal Slope:	1.002390	1.003366
CH <sub>4</sub> Cal Offset:	-0.026752	-0.018167
NMHC Cal Slope:	1.003984	1.000741
NMHC Cal Offset:	-0.010560	-0.017145

Calibration Performed By: Kelly Baragar



# Wood Buffalo Environmental Association

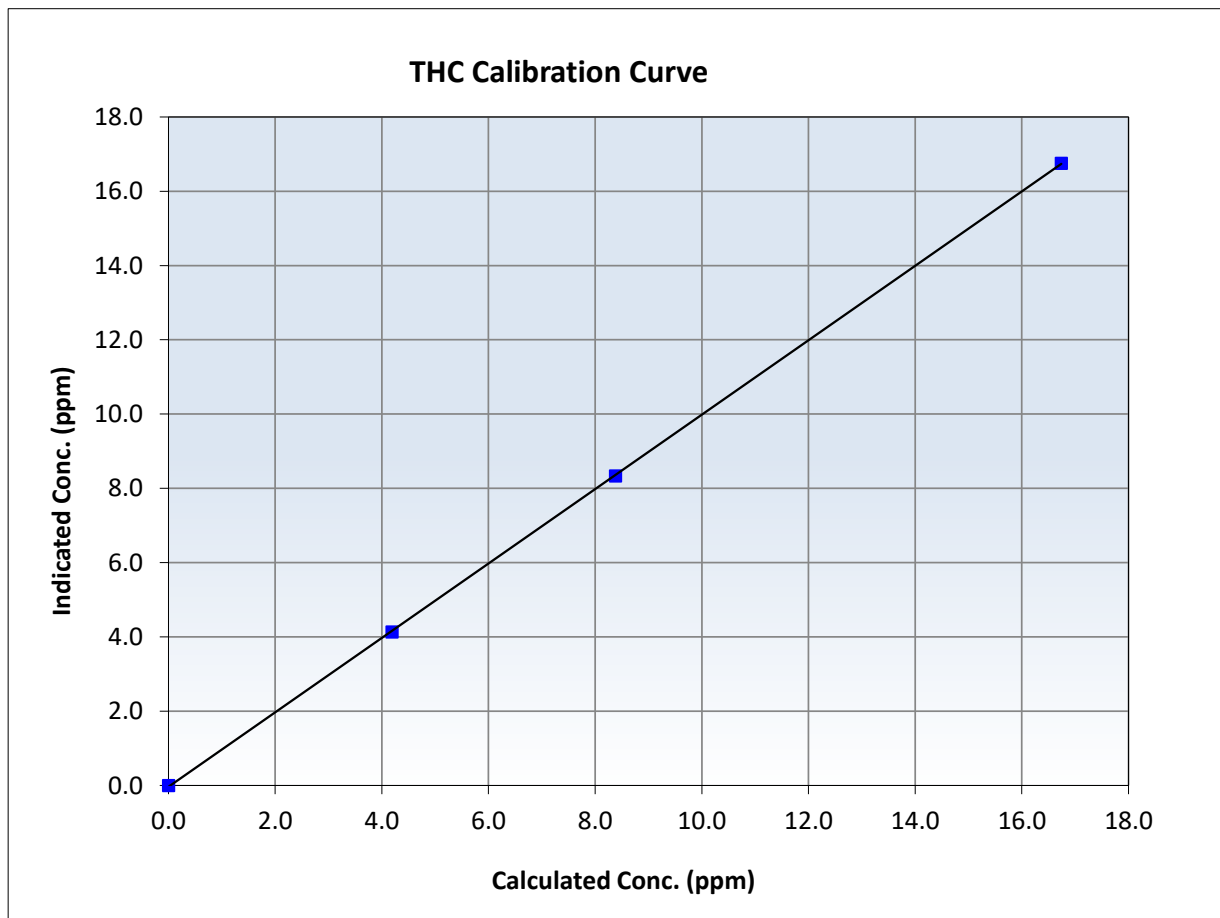
## THC Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 15, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	9:22	End Time (MST):	12:40
Analyzer make:	Thermo 55i	Analyzer serial #:	15005164381

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999980	<i>&gt;0.995</i>
16.74	16.76	0.9990	Slope	1.001933	<i>0.90 - 1.10</i>
8.38	8.34	1.0051	Intercept	-0.035112	<i>+/-0.5</i>
4.19	4.13	1.0141			





# Wood Buffalo Environmental Association

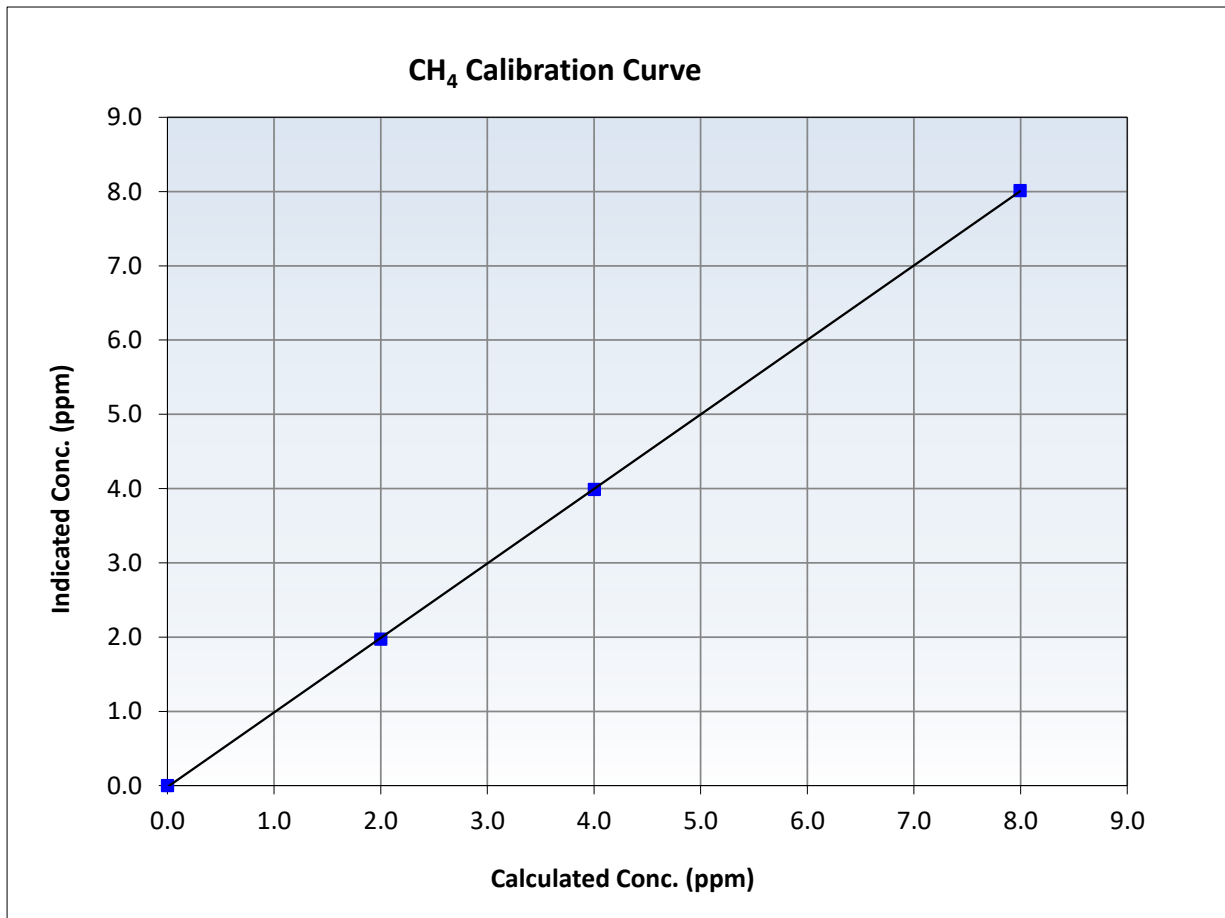
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 15, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	9:22	End Time (MST):	12:40
Analyzer make:	Thermo 55i	Analyzer serial #:	15005164381

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999977	<i>&gt;0.995</i>
7.99	8.01	0.9977	Slope	1.003366	<i>0.90 - 1.10</i>
4.00	3.99	1.0036	Intercept	-0.018167	<i>+/-0.5</i>
2.00	1.97	1.0148			





# Wood Buffalo Environmental Association

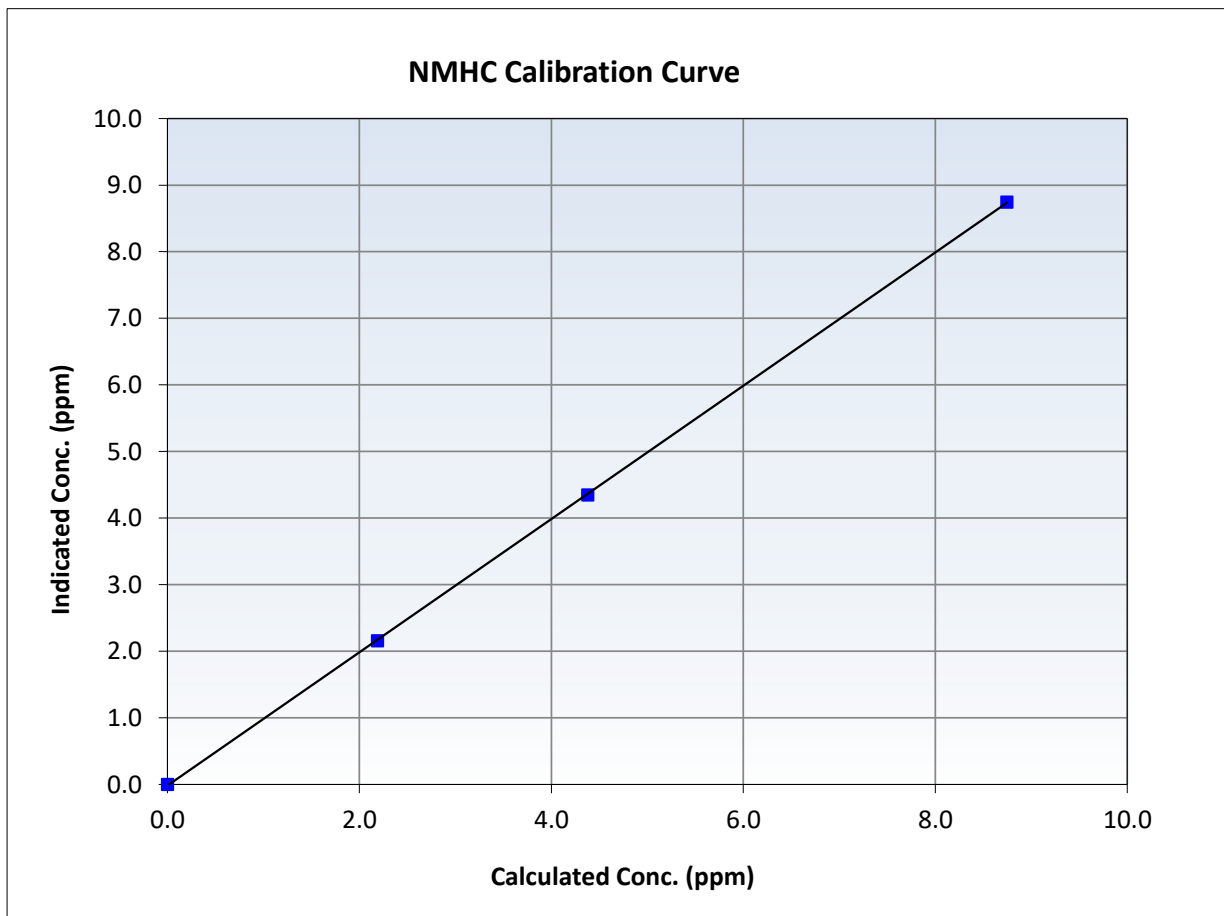
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 15, 2026
Station Name:	Mannix	Station Number:	AMS 05
Start Time (MST):	9:22	End Time (MST):	12:40
Analyzer make:	Thermo 55i	Analyzer serial #:	15005164381

### Calibration Data

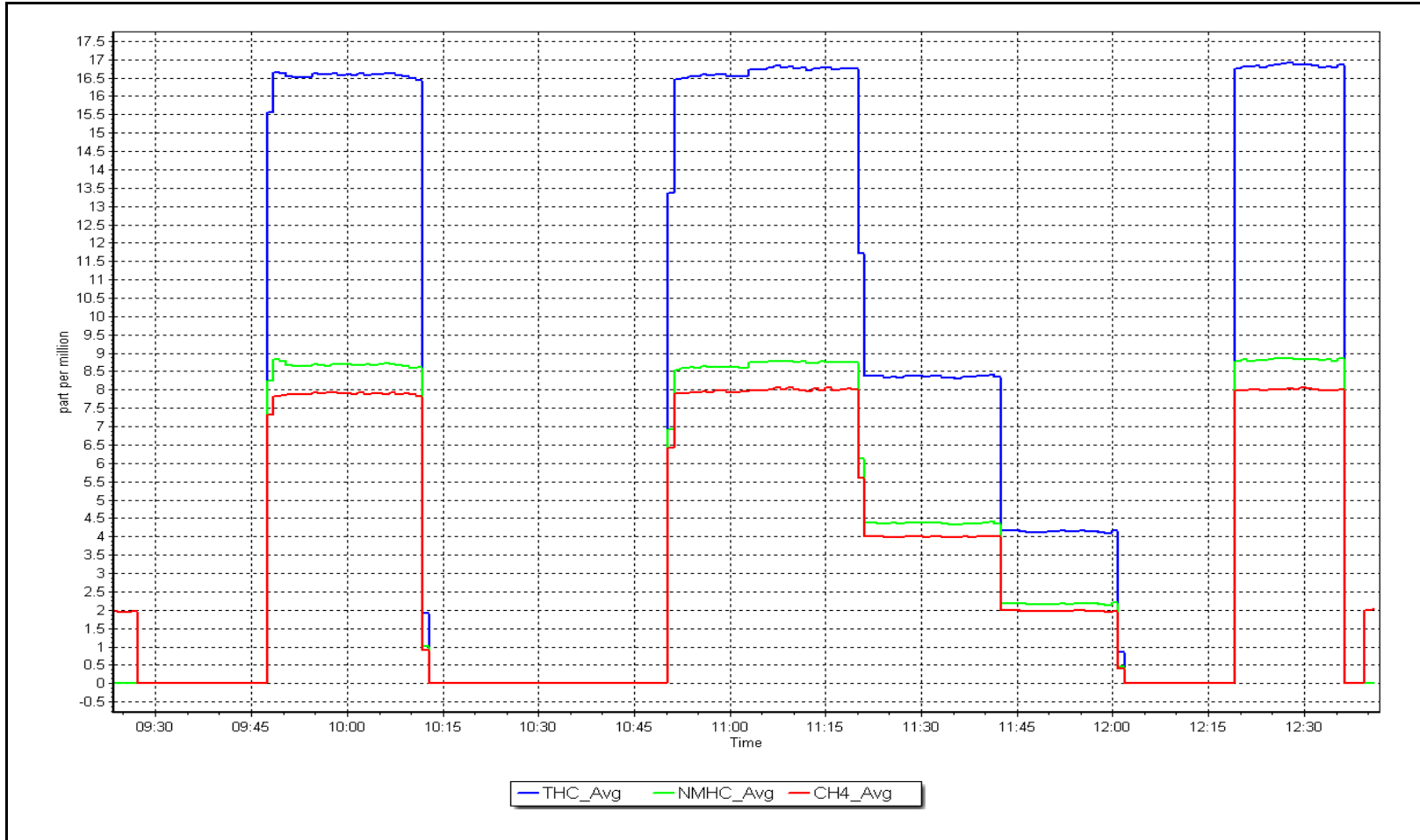
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999981	<i>&gt;0.995</i>
8.75	8.75	1.0000	Slope	1.000741	<i>0.90 - 1.10</i>
4.38	4.35	1.0064	Intercept	-0.017145	<i>+/-0.5</i>
2.19	2.16	1.0134			



NMHC Calibration Plot

Date: May 11, 2026

Location: Mannix





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS06**  
**PATRICIA MCINNES**  
**MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Patricia McInnes	Station number:	AMS 06
Calibration Date:	May 19, 2026	Last Cal Date:	April 28, 2026
Start time (MST):	10:00	End time (MST):	14:02
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.08	ppm	Cal Gas Exp Date: October 22, 2032
Cal Gas Cylinder #:	CC255448		
Removed Cal Gas Conc:	50.08	ppm	Rem Gas Exp Date:
Removed Gas Cyl #:			Diff between cyl:
Calibrator Model:	API T700		Serial Number: 5240
Zero Air Gen Model:	API T701		Serial Number: 4602

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1160290013
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997743	0.993214	Backgd or Offset:	28.7	28.2
Calibration intercept:	-0.478682	-0.734342	Coeff or Slope:	1.016	1.016

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.5	----
As found High point	4920	79.9	800.3	795.3	1.006
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	795.8	Previous response	798.0	*% change	-0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4920	80.2	803.3	797.5	1.007
Mid point	4960	40.2	402.6	398.6	1.010
Low point	4980	20.2	202.3	199.6	1.014
As left zero	5000	0.0	0.0	0.0	----
As left span	4920	80.2	803.3	795.7	1.009
Average Correction Factor:					1.010

Notes: Swapped sample inlet filter as founds. Adjusted zero.

Calibration Performed By: Braiden Boutilier



# Wood Buffalo Environmental Association

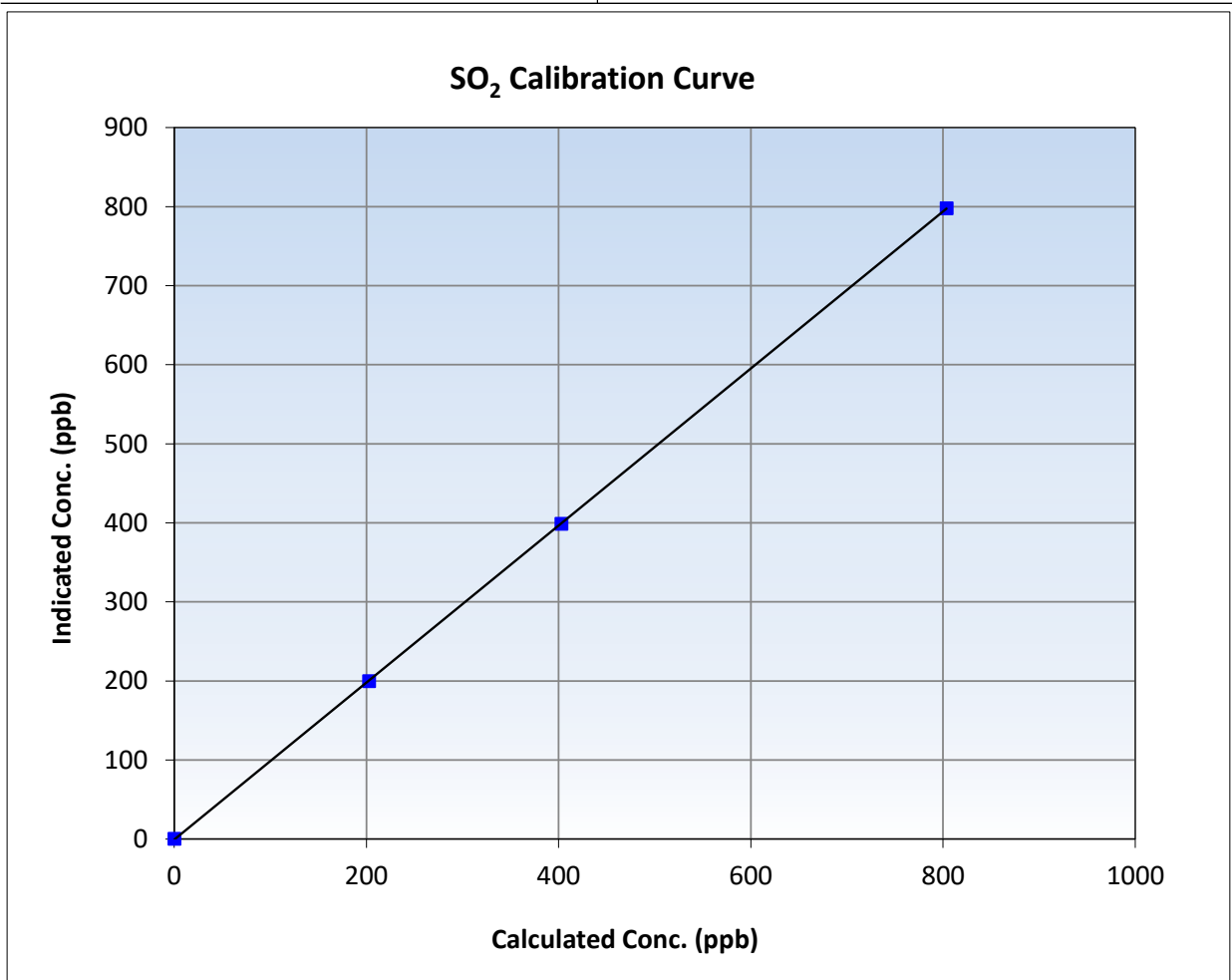
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 28, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:00	End Time (MST):	14:02
Analyzer make:	Thermo 43i	Analyzer serial #:	1160290013

### Calibration Data

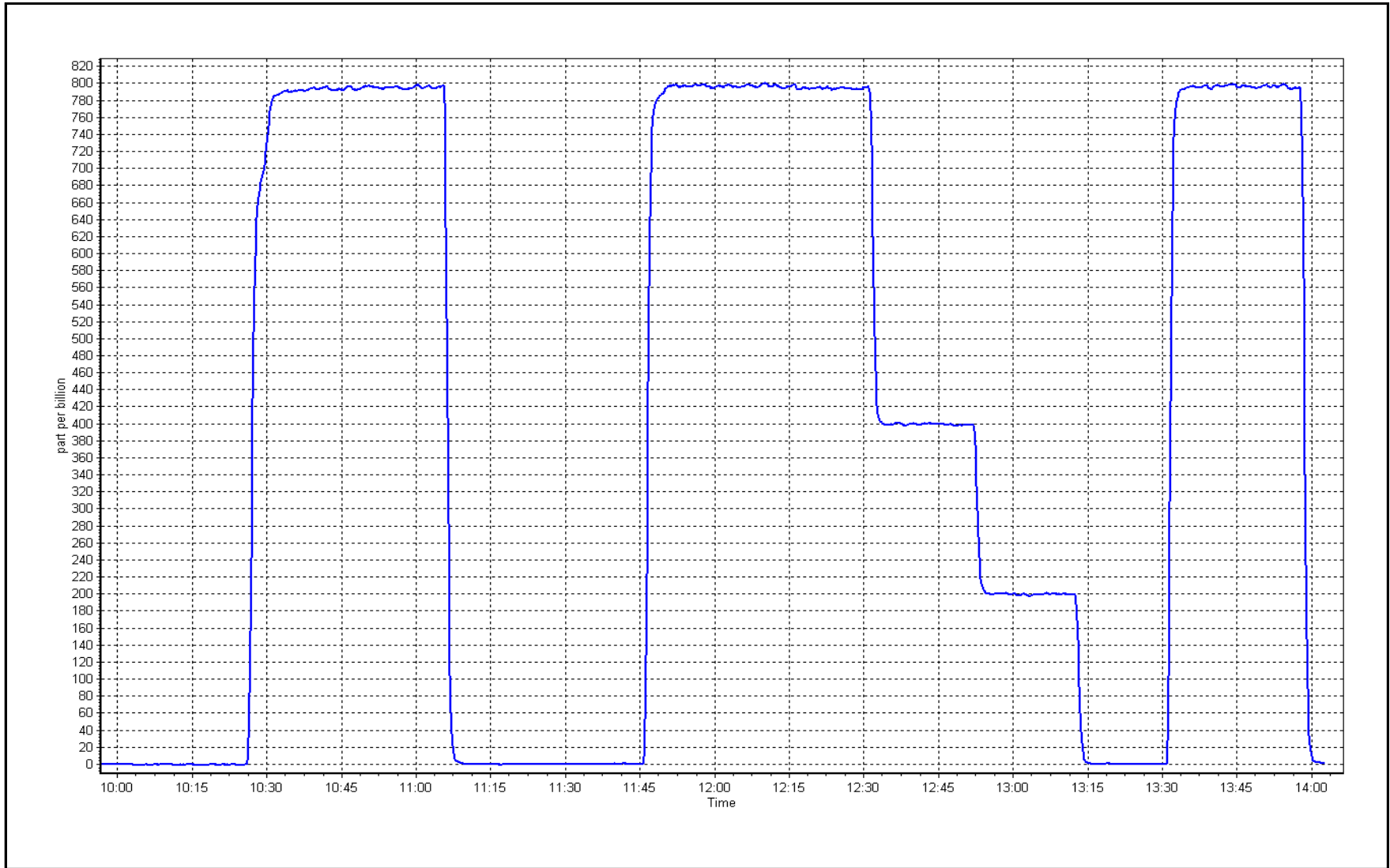
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.0	----	Correlation Coefficient	0.999996	<b>≥0.995</b>
803.3	797.5	1.0072	Slope	0.993214	<b>0.90 - 1.10</b>
402.6	398.6	1.0101	Intercept	-0.734342	<b>+/-30</b>
202.3	199.6	1.0136			



SO2 Calibration Plot

Date: May 19, 2026

Location: Patricia McInnes





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name: Patricia McInnes	Station number: AMS 06
Calibration Date: May 14, 2026	Last Cal Date: April 9, 2026
Start time (MST): 8:44	End time (MST): 14:07
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 4.760 ppm	Cal Gas Exp Date: August 28, 2027
Cal Gas Cylinder #: DT0014585	
Removed Cal Gas Conc: 4.760 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 5240
ZAG Make/Model: API T701	Serial Number: 4602

### Analyzer Information

Analyzer make: Thermo 43i TLE	Analyzer serial #: 1236656116
Converter make: CDN-101	Converter serial #: 621
Analyzer Range: 0 - 100 ppb	Converter Temp: 850 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000543	1.003116	Backgd or Offset:	2.39	2.52
Calibration intercept:	0.020000	0.180000	Coeff or Slope:	1.193	1.258

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4916	84.0	80.0	73.0	1.094
As found Mid point	4958	42.0	40.0	36.5	1.092
As found Low point	4979	21.0	20.0	18.3	1.087
New cylinder response					
Baseline Corr As found:	73.1	Prev response:	80.03	*% change:	-9.5%
Baseline Corr 2nd AF pt:	36.6	AF Slope:	0.913651	AF Intercept:	-0.040000
Baseline Corr 3rd AF pt:	18.4	AF Correlation:	0.999997	* = > +/-5% change initiates investigation	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4916	84.0	80.0	80.3	0.996
Mid point	4958	42.0	40.0	40.4	0.990
Low point	4979	21.0	20.0	20.4	0.980
As left zero				0.0	
As left span	4916	84.0	80.0	81.2	0.985
SO2 Scrubber Check					
Date of last scrubber change:	Wednesday, April 8, 2026			Ave Corr Factor	0.989
Date of last converter efficiency test:					

Notes: Changed sample inlet filter after as founds. Adjusted span.

Calibration Performed By: Braiden Boutilier



# Wood Buffalo Environmental Association

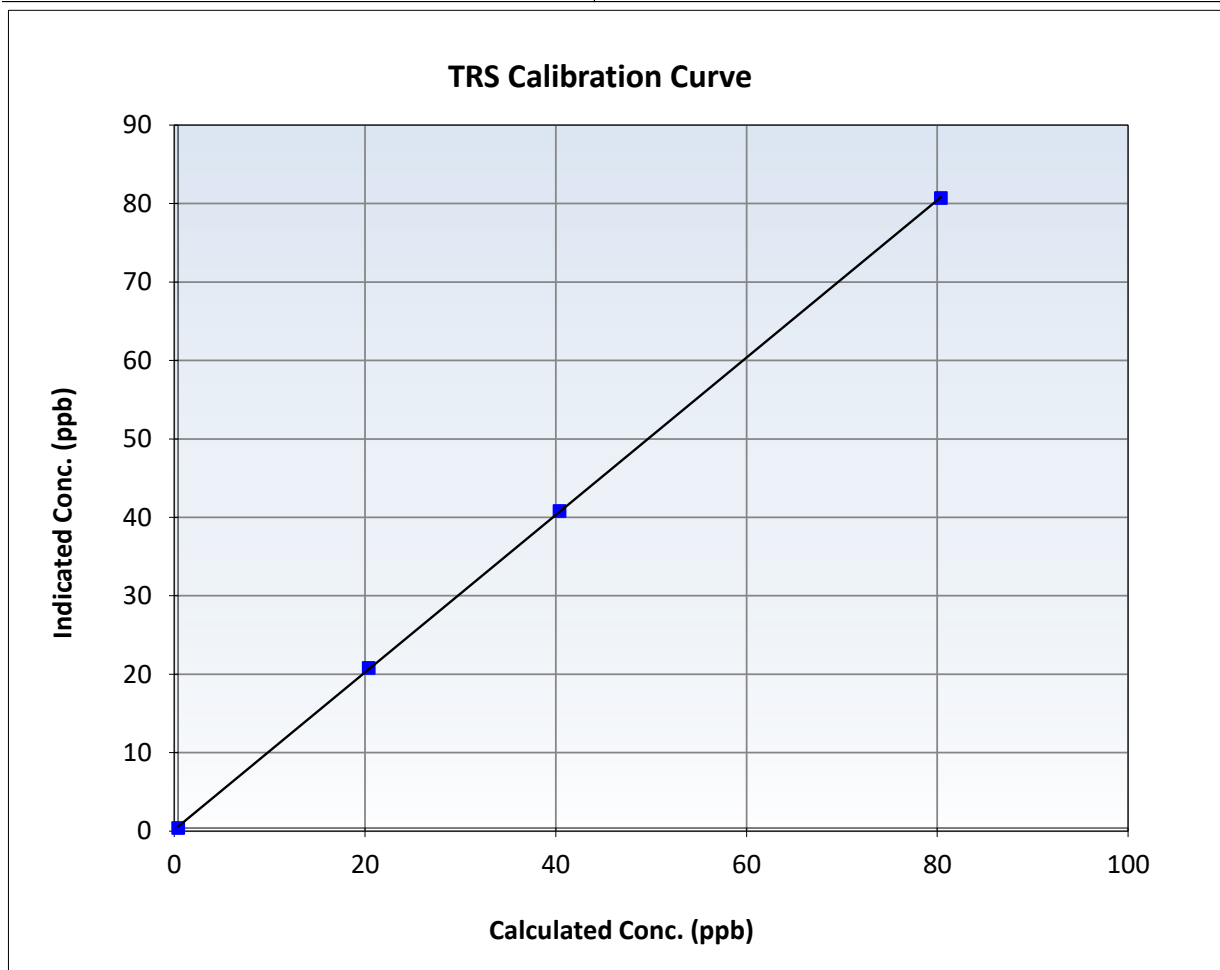
## TRS Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 9, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:44	End Time (MST):	14:07
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1236656116

### Calibration Data

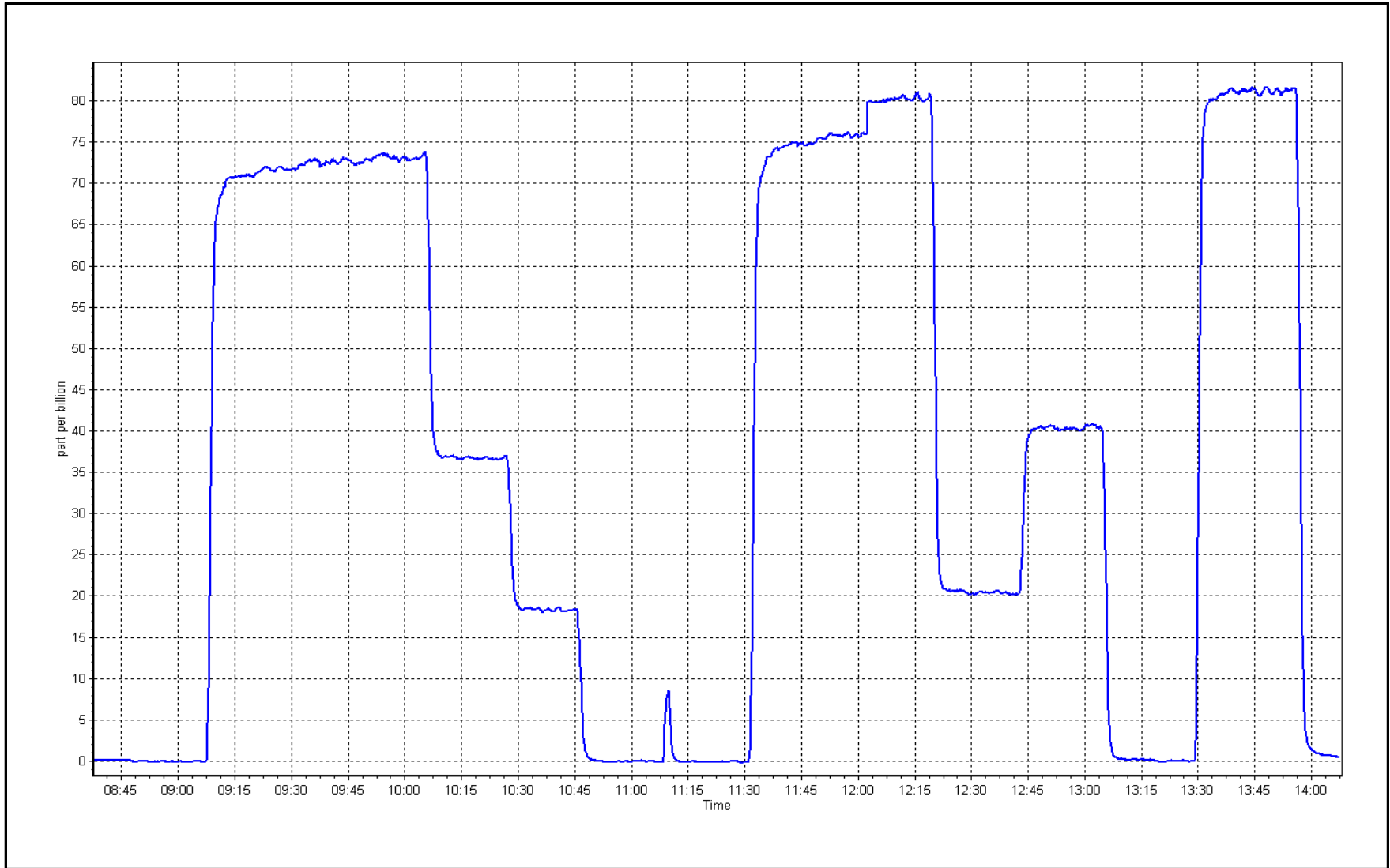
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999977	$\geq 0.995$
80.0	80.3	0.9959	Slope	1.003116	$0.90 - 1.10$
40.0	40.4	0.9897	Intercept	0.180000	$\pm 3$
20.0	20.4	0.9800			



TRS Calibration Plot

Date: May 14, 2026

Location: Patricia McInnes





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Patricia McInnes	Station number:	AMS 06
Calibration Date:	May 19, 2026	Last Cal Date:	April 27, 2026
Start time (MST):	10:00	End time (MST):	14:02
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC255448	Cal Gas Expiry Date:	October 22, 2032
CH <sub>4</sub> Cal Gas Conc.	501.4 ppm	CH <sub>4</sub> Equiv Conc.	1049.5 ppm
C <sub>3</sub> H <sub>8</sub> Cal Gas Conc.	199.3 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH <sub>4</sub> Conc.	501.4 ppm	CH <sub>4</sub> Equiv Conc.	1049.5 ppm
Removed C <sub>3</sub> H <sub>8</sub> Conc.	199.3 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5240
Zero Air Gen model:	API T701	Serial Number:	4602

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1118148494
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH <sub>4</sub> SP Ratio:	3.12E-04	3.18E-04	5.40E-05	5.36E-05
CH <sub>4</sub> Retention time:	15.4	15.6	162095	163272
Zero Chromatogram:	ON	ON	Flat Baseline: OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.2	16.83	16.56	1.016
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.56	Prev response	16.73	*% change	-1.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	16.83	16.86	0.998
Mid point	4960	40.2	8.44	8.40	1.004
Low point	4980	20.2	4.24	4.15	1.021
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	16.83	16.89	0.997
Average Correction Factor					1.008

Notes: Changed nitrogen cylinder and inlet filter after as founds. Adjusted span.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.2	8.79	8.78	1.001
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.78	Prev response	8.75	*% change	0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	8.79	8.79	1.000
Mid point	4960	40.2	4.41	4.42	0.998
Low point	4980	20.2	2.21	2.21	1.004
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	8.79	8.82	0.997
Average Correction Factor					1.001

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.2	8.04	7.77	1.034
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.77	Prev response	7.98	*% change	-2.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.2	8.04	8.08	0.995
Mid point	4960	40.2	4.03	3.98	1.013
Low point	4980	20.2	2.03	1.95	1.040
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.2	8.04	8.07	0.997
Average Correction Factor					1.016

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.996006	1.003156
THC Cal Offset:	-0.037050	-0.047549
CH <sub>4</sub> Cal Slope:	0.996872	1.007414
CH <sub>4</sub> Cal Offset:	-0.035925	-0.048584
NMHC Cal Slope:	0.995162	1.000378
NMHC Cal Offset:	-0.001923	-0.001769

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

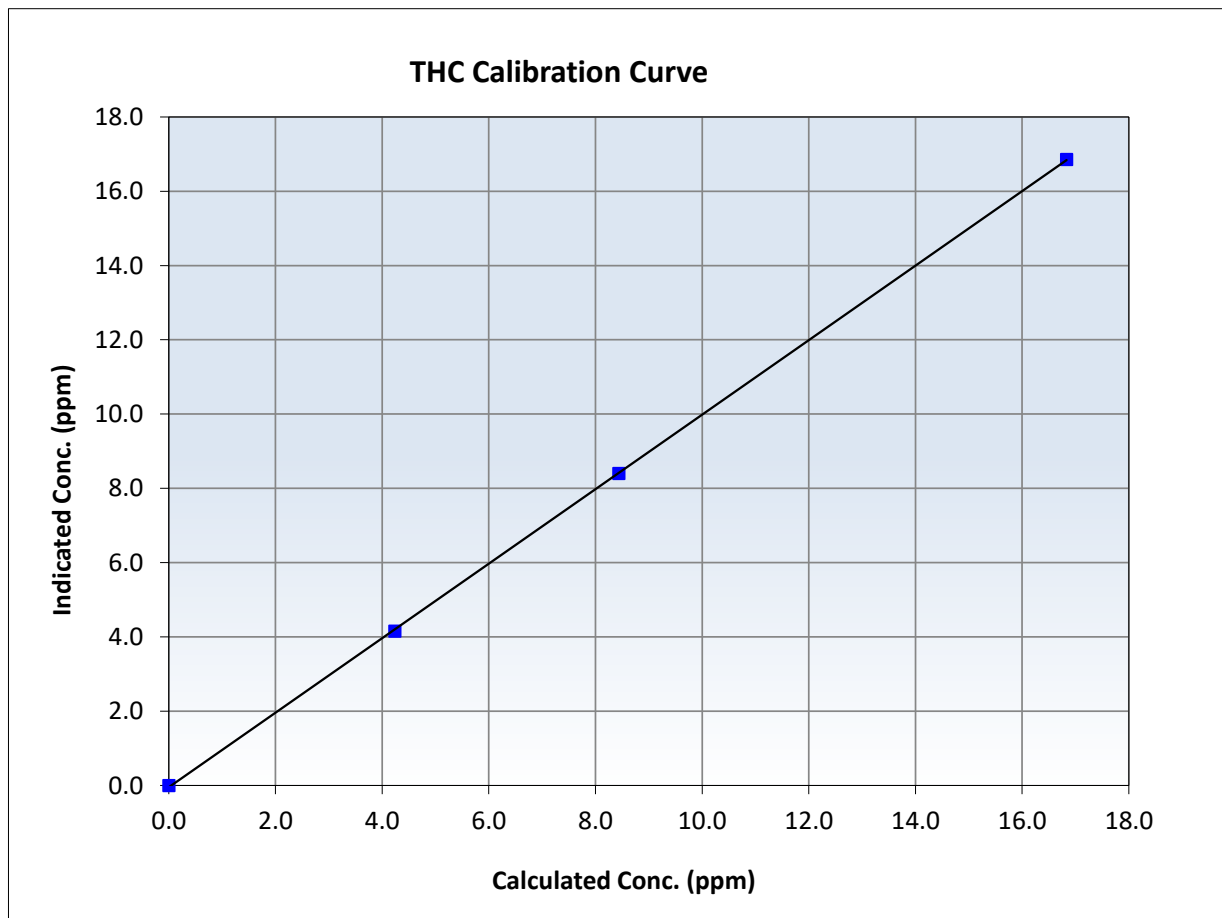
## THC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:00	End Time (MST):	14:02
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999963	<span style="color: red;">≥0.995</span>
16.83	16.86	0.9984	Slope	1.003156	<span style="color: red;">0.90 - 1.10</span>
8.44	8.40	1.0045	Intercept	-0.047549	<span style="color: red;">+/-0.5</span>
4.24	4.15	1.0209			





# Wood Buffalo Environmental Association

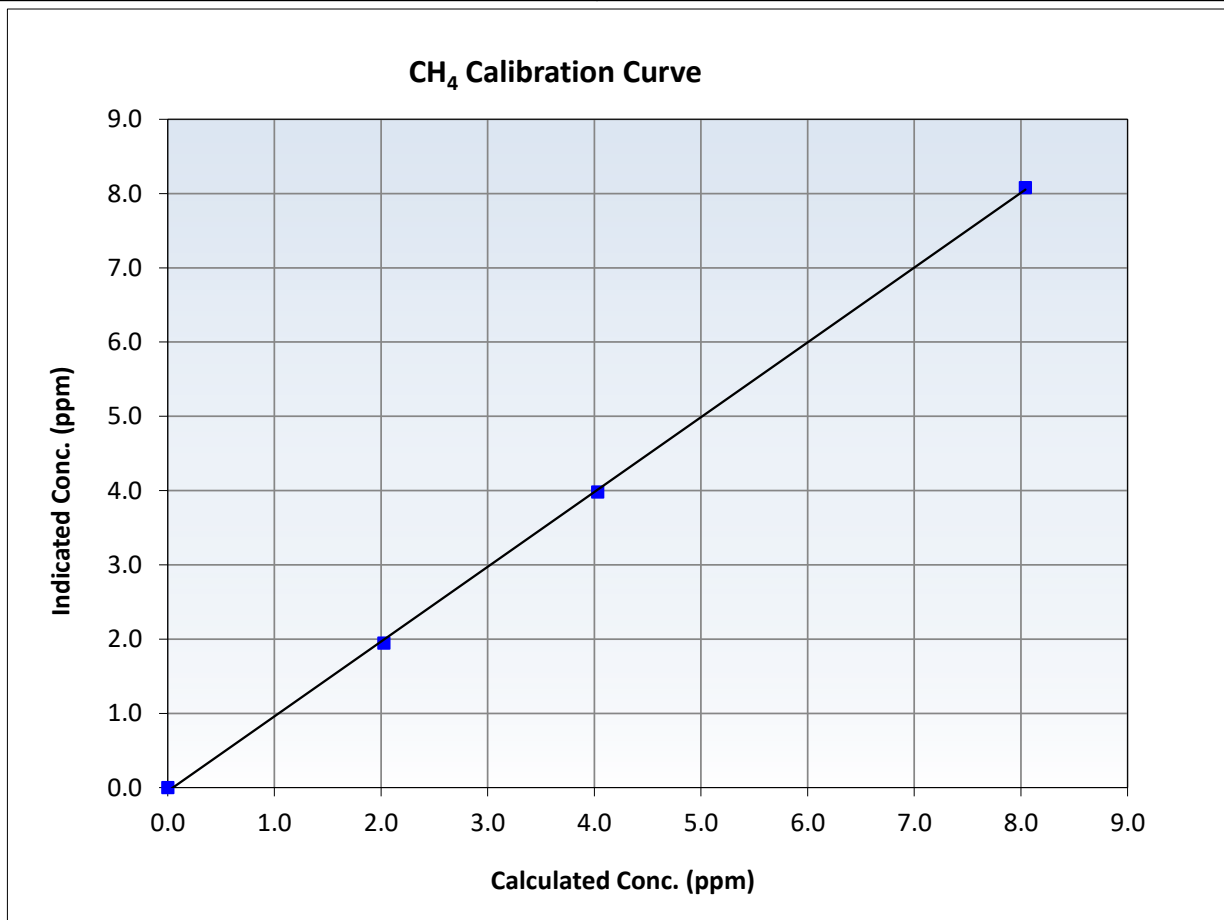
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:00	End Time (MST):	14:02
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999833	≥0.995
8.04	8.08	0.9953	Slope	1.007414	0.90 - 1.10
4.03	3.98	1.0126	Intercept	-0.048584	+/-0.5
2.03	1.95	1.0398			





# Wood Buffalo Environmental Association

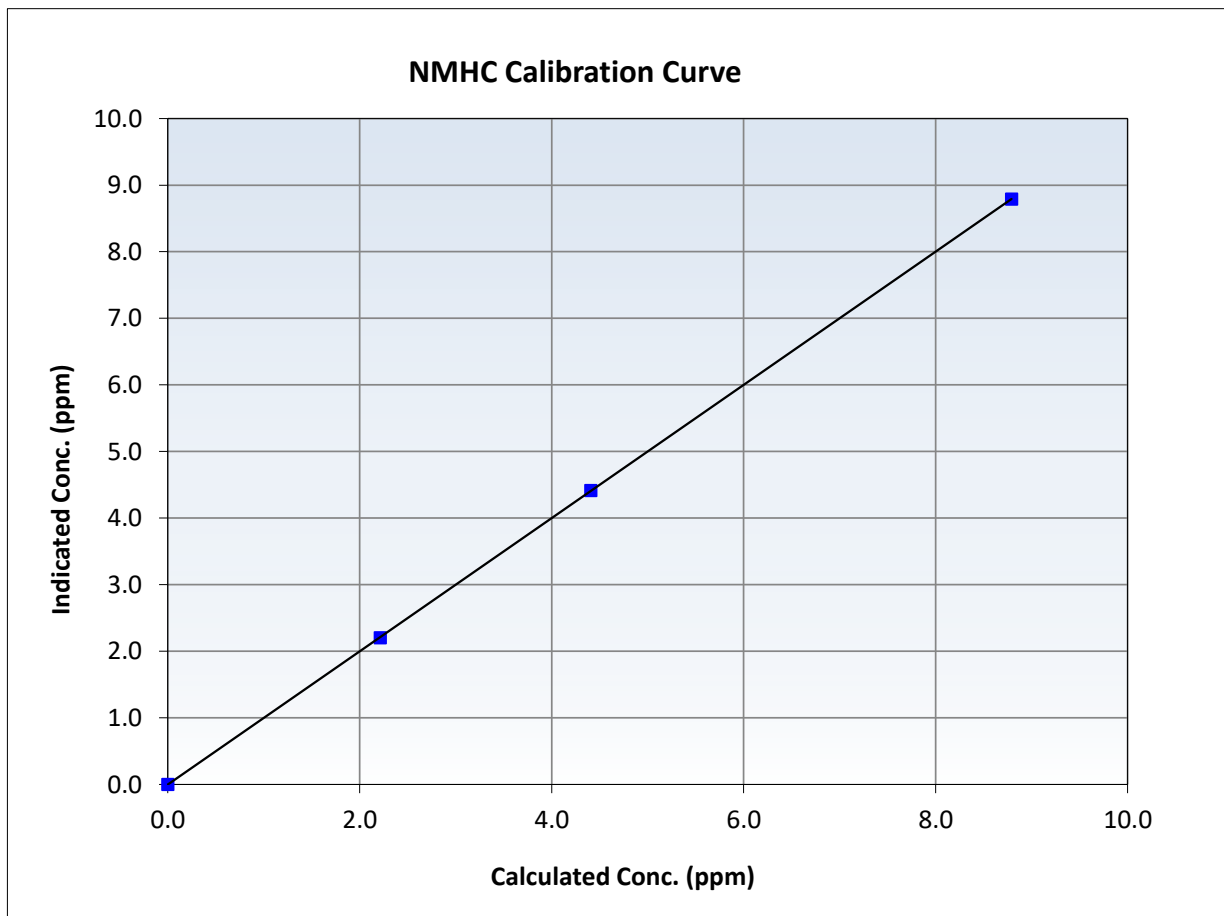
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 27, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	10:00	End Time (MST):	14:02
Analyzer make:	Thermo 55i	Analyzer serial #:	1118148494

### Calibration Data

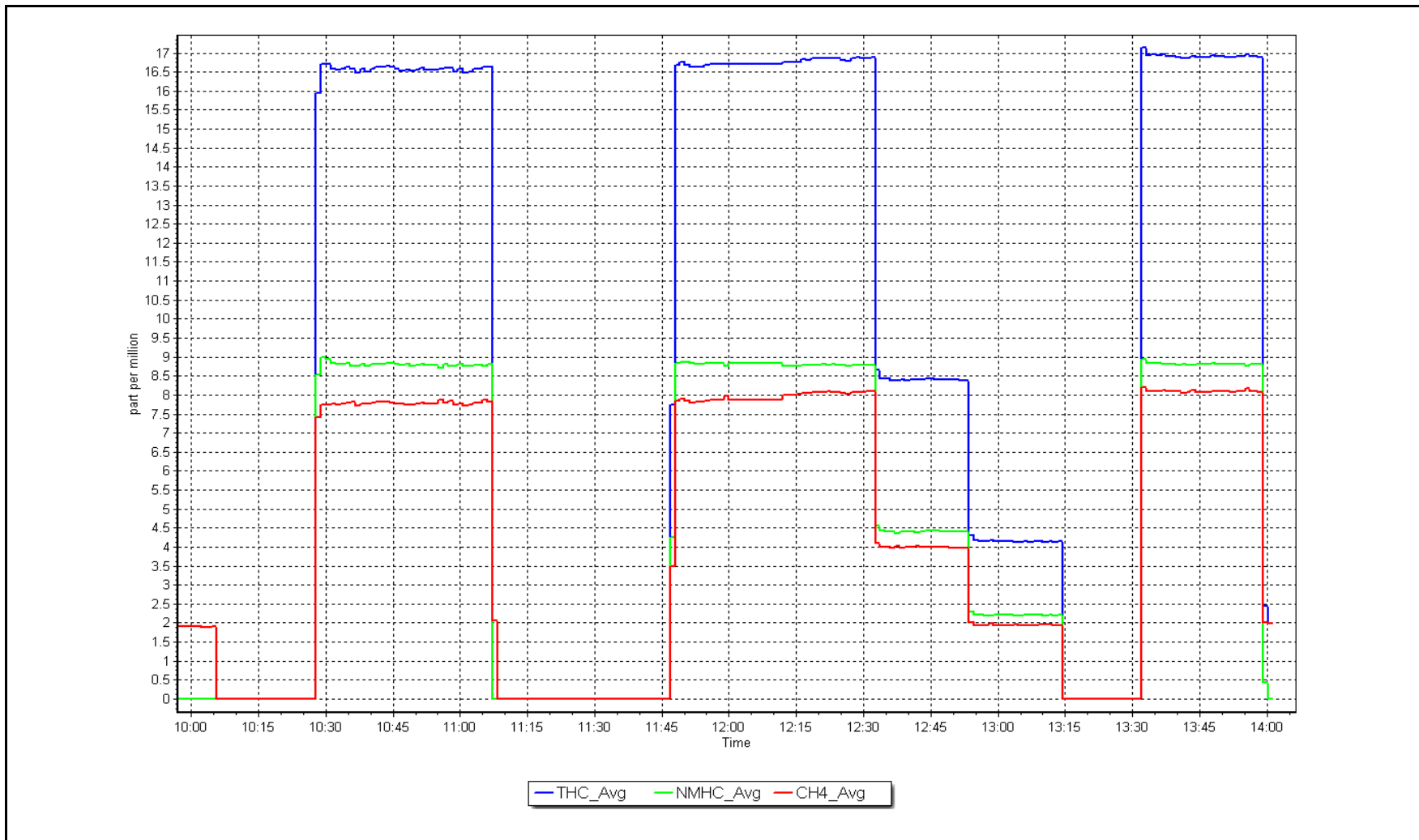
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999996	<i>≥0.995</i>
8.79	8.79	1.0001	Slope	1.000378	<i>0.90 - 1.10</i>
4.41	4.42	0.9980	Intercept	-0.001769	<i>+/-0.5</i>
2.21	2.21	1.0041			



NMHC Calibration Plot

Date: May 19, 2026

Location: Patricia McInnes





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Patricia McInnes  
 Station number: AMS 06  
 Calibration Date: May 21, 2026  
 Last Cal Date: April 14, 2026  
 Start time (MST): 9:01  
 End time (MST): 13:15  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0036234  
 NOX Cal Gas Conc: 62.2 ppm  
 Removed Cylinder #:  
 Removed Gas NOX Conc: 62.20 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: July 22, 2032  
 NO Cal Gas Conc: 61.90 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 61.90 ppm  
 NO gas Diff:  
 Serial Number: 5240  
 Serial Number: 4602

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.5	-0.2	-0.2	----	----
AF High point	4935	64.6	803.7	799.8	3.9	803.8	795.3	8.4	0.9992	1.0054
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO <sub>x</sub> = 803.6 ppb	NO = 801.7 ppb	<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = 0.1%
Baseline Corr 1st pt	NO <sub>x</sub> = 804.3 ppb	NO = 795.5 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -0.8%
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :	NO SI:	NO Int:
			As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1172750022

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.999668	0.997493
NO <sub>x</sub> Cal Offset:	0.192652	0.632858
NO Cal Slope:	1.004310	0.996937
NO Cal Offset:	-1.586236	-0.205211
NO <sub>2</sub> Cal Slope:	0.997864	0.996540
NO <sub>2</sub> Cal Offset:	0.023749	-0.427785

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.879	0.879	NO bkgnd or offset:	3.8	3.8
NOX coeff or slope:	0.995	0.995	NOX bkgnd or offset:	4.4	4.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	159.6	161.2

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	----	----
High point	4935	64.6	803.7	799.8	3.9	801.5	796.6	4.9	1.0027	1.0040
Mid point	4968	32.3	401.8	399.9	1.9	403.1	400.2	3.0	0.9967	0.9991
Low point	4984	16.2	201.5	200.5	1.0	201.5	198.4	3.1	1.0001	1.0108
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.1	0.1	----	----
As left span	4935	64.6	803.7	377.2	426.5	796.3	377.2	419.2	1.0093	1.0000
Average Correction Factor									0.9999	1.0047

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	791.4	356.8	438.5	436.8	1.0038	99.6%
Mid GPT point	791.4	584.3	211.0	209.3	1.0080	99.2%
Low GPT point	791.4	688.1	107.2	106.3	1.0082	99.2%
Average Correction Factor					1.0067	99.3%

Notes:

Changed the inlet filter after as founds. No adjustment made.

Calibration Performed By:

Jan Castro



# Wood Buffalo Environmental Association

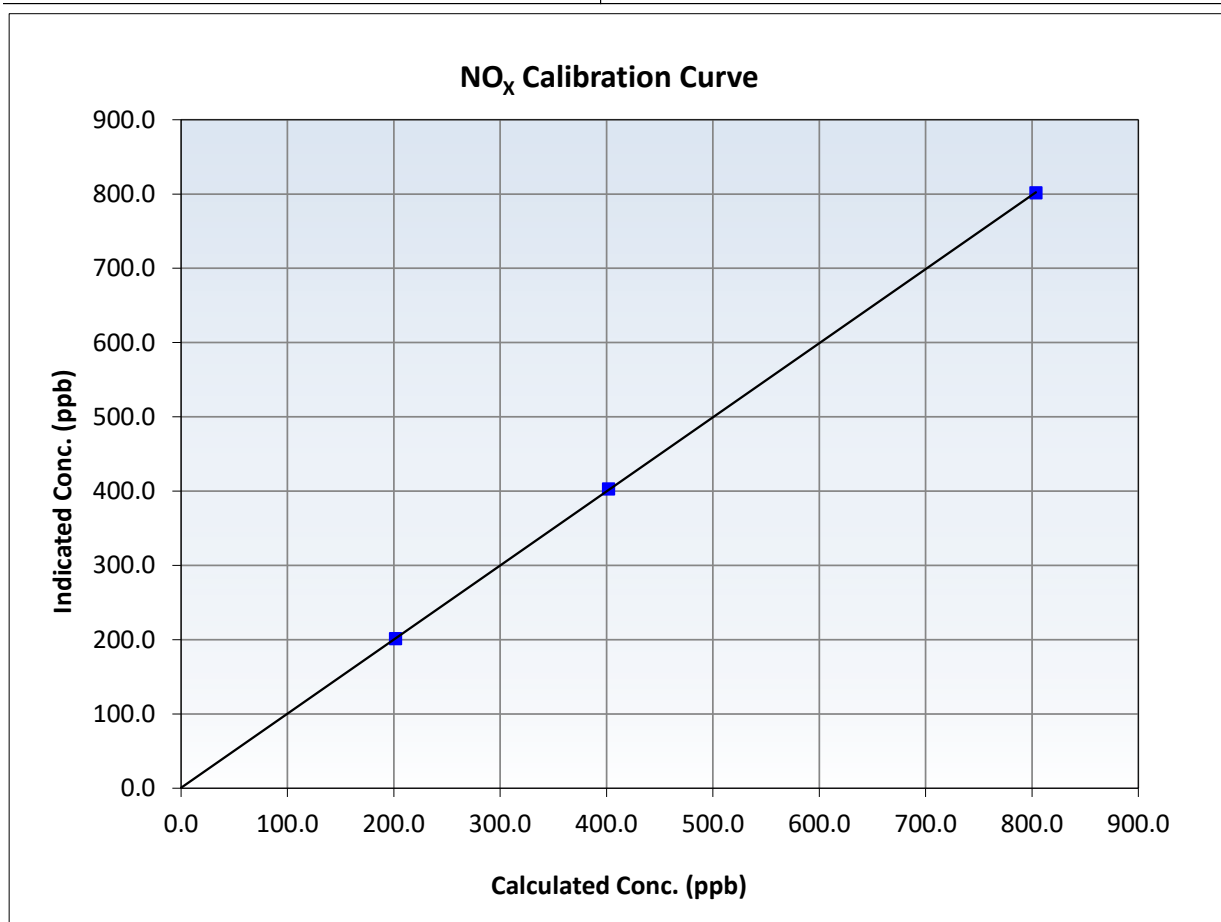
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 14, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:15
Analyzer make:	Thermo 42i	Analyzer serial #:	1172750022

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999988	<i>≥0.995</i>
803.7	801.5	1.0027	Slope	0.997493	<i>0.90 - 1.10</i>
401.8	403.1	0.9967	Intercept	0.632858	<i>+/-20</i>
201.5	201.5	1.0001			





# Wood Buffalo Environmental Association

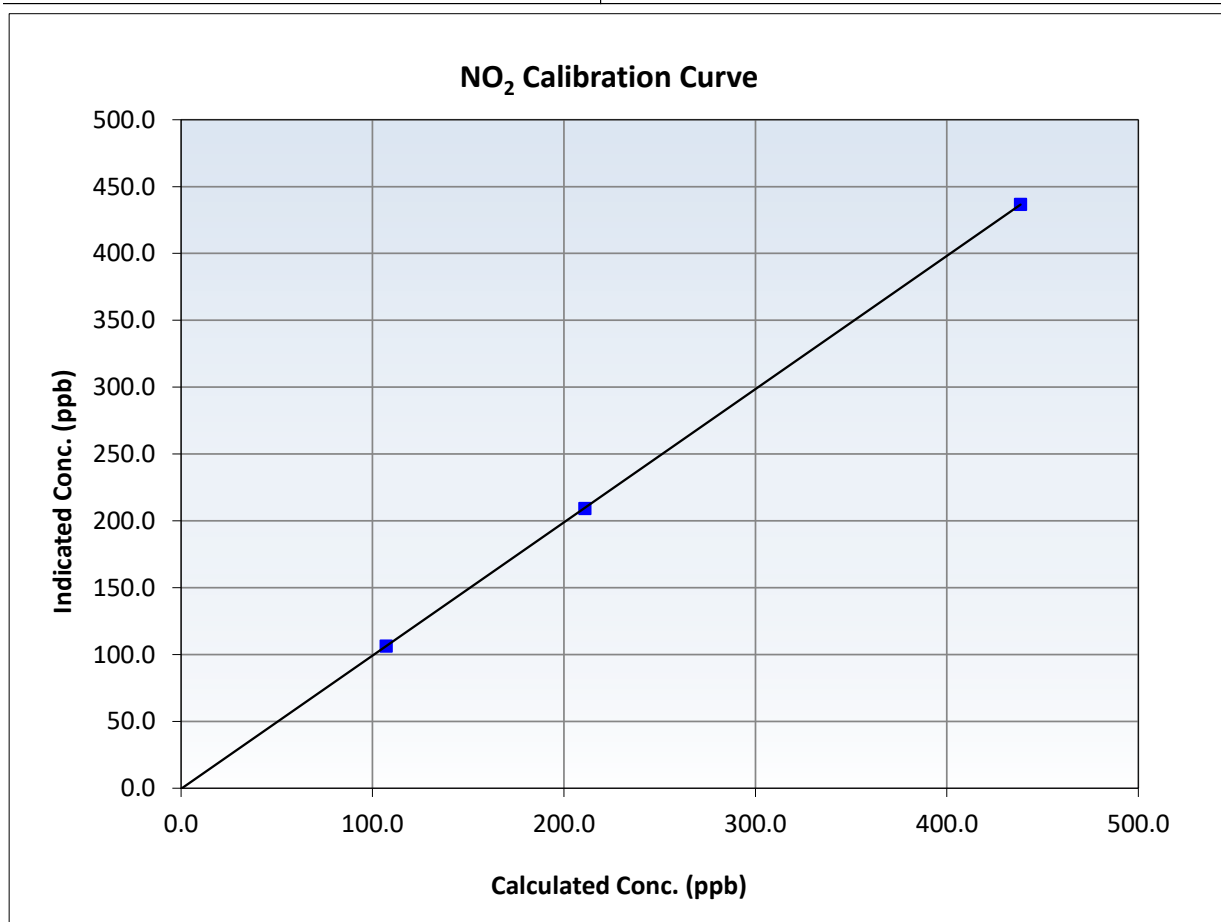
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 14, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:15
Analyzer make:	Thermo 42i	Analyzer serial #:	1172750022

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999996	≥0.995
438.5	436.8	1.0038	Slope	0.996540	0.90 - 1.10
211.0	209.3	1.0080	Intercept	-0.427785	+/-20
107.2	106.3	1.0082			





# Wood Buffalo Environmental Association

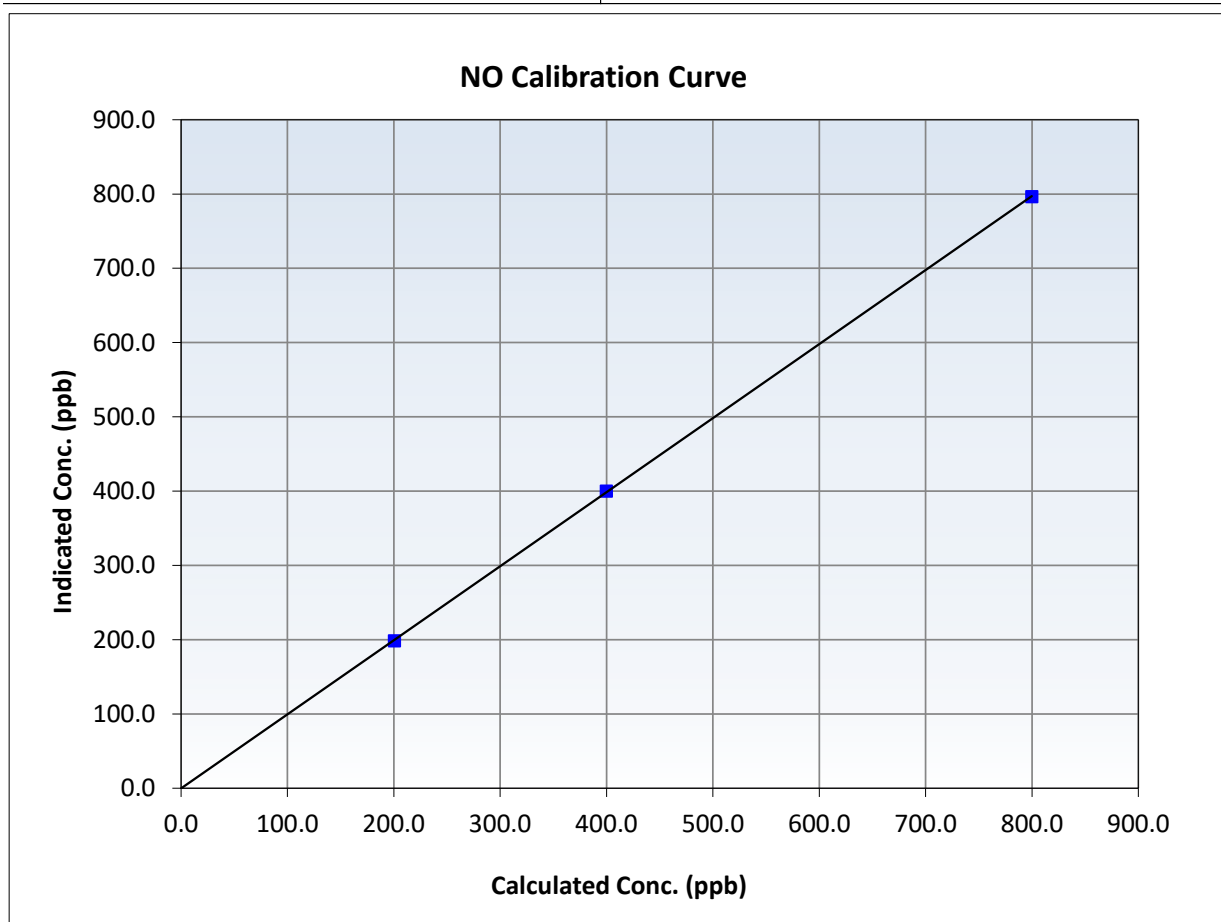
## NO Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 14, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:01	End Time (MST):	13:15
Analyzer make:	Thermo 42i	Analyzer serial #:	1172750022

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999985	<i>≥0.995</i>
799.8	796.6	1.0040	Slope	0.996937	<i>0.90 - 1.10</i>
399.9	400.2	0.9991	Intercept	-0.205211	<i>+/-20</i>
200.5	198.4	1.0108			



NO<sub>x</sub> Calibration Plot

Date: May 21, 2026

Location: Patricia McInnes





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Patricia McInnes	Station number:	AMS 06
Calibration Date:	May 7, 2026	Last Cal Date:	April 21, 2026
Start time (MST):	9:55	End time (MST):	13:27
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	5240
Calibrator Make/Model:	API T700	Serial Number:	4602
ZAG Make/Model:	API T701		

### Analyzer Information

Analyzer make:	Teledyne API T400	Analyzer serial #:	7046
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.992343	1.003457	Backgd or Offset:	3.1	3.5
Calibration intercept:	0.840000	0.420000	Coeff or Slope:	1.011	1.025

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	0.0	----
As found High point	5000	908.6	400.0	393.2	1.017
As found Mid point					
As found Low point					
Baseline Corr As found:	393.2	Previous response	397.8	*% change	-1.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	-0.1	----
High point	5000	908.1	400.0	401.5	0.996
Mid point	5000	786.8	200.0	201.5	0.993
Low point	5000	688.8	100.0	101.2	0.988
As left zero	5000	800.0	0.0	-0.4	----
As left span	5000	907.0	400.0	402.8	0.993
Average Correction Factor					0.992

Notes: Changed sample inlet filter after as founds. Adjusted zero and span.

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

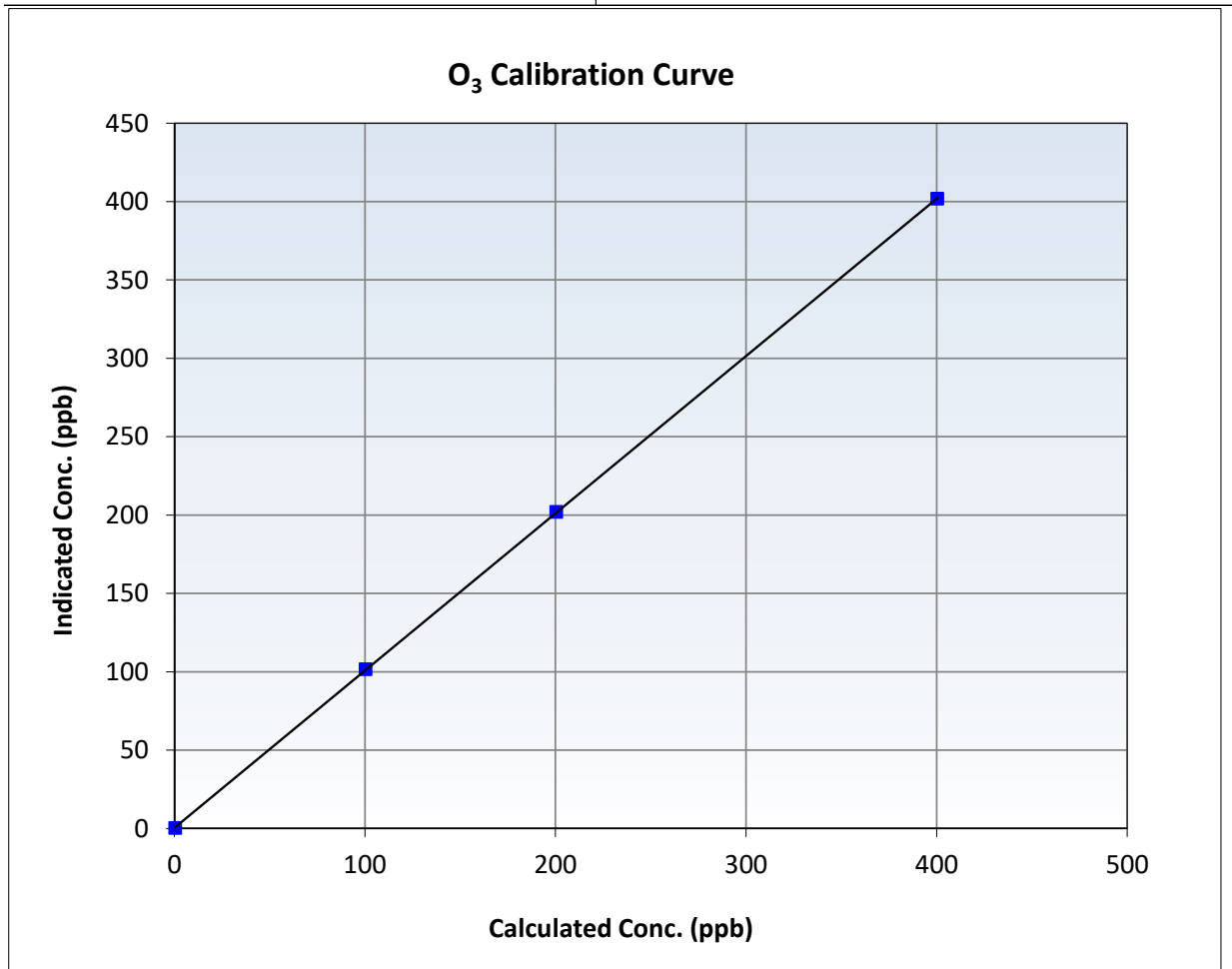
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 21, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	9:55	End Time (MST):	13:27
Analyzer make:	Teledyne API T400	Analyzer serial #:	7046

### Calibration Data

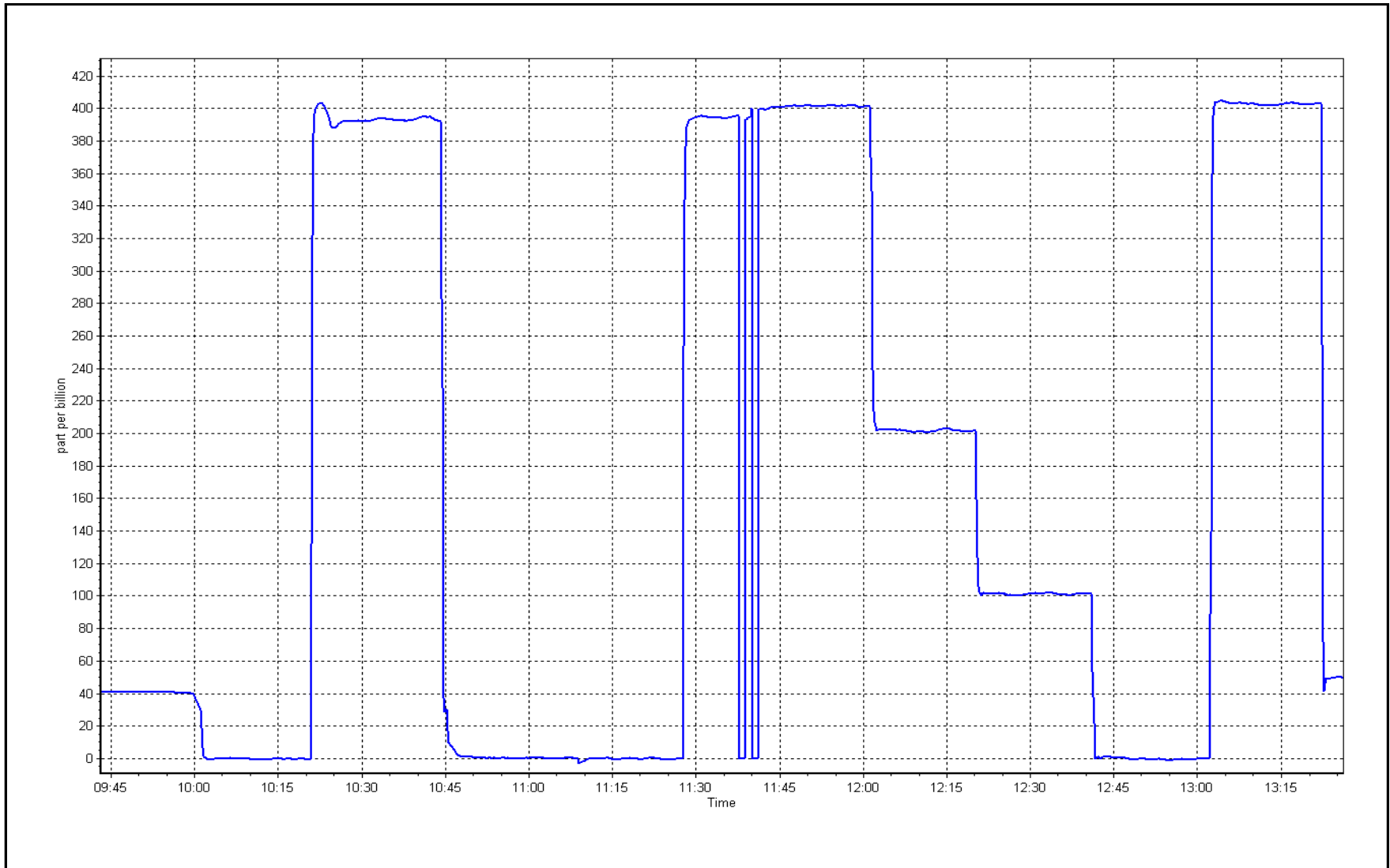
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999992	<span style="color: red;">≥0.995</span>
400.0	401.5	0.9963	Slope	1.003457	<span style="color: red;">0.90 - 1.10</span>
200.0	201.5	0.9926	Intercept	0.420000	<span style="color: red;">+/- 5</span>
100.0	101.2	0.9881			



O<sub>3</sub> Calibration Plot

Date: May 7, 2026

Location: Patricia McInnes





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Patricia McInnes Station number: AMS 06  
 Calibration Date: May 27, 2026 Last Cal Date: April 14, 2026  
 Start time (MST): 10:28 End time (MST): 10:50

Analyzer Make: API T640 S/N: 1547  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388750  
 Temp/RH standard: Alicat FP-25BT S/N: 388750

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	23.1	22.75	23.1	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	724.3	724.12	724.3	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	4.99	4.908	4.99	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	29	----	29	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	10.6	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: 07-16-2026  
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: April 14, 2026  
Date Disposable Filter Changed: April 14, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: April 4, 2025  
Date RH/T Sensor Cleaned: April 4, 2025

Verified temperature, pressure, flow and pump%. Leak check passed.

Notes:

Calibration by: Braiden Boutilier



# Wood Buffalo Environmental Association

## Nt - NOX - NH3 Calibration Report

### Station Information

Station Name:	Patricia McInnes	Station number:	AMS 06
NOX Cal Date:	May 27, 2026	Last Cal Date:	April 23, 2026
Start time (MST):	8:47	End time (MST):	13:55
NH3 Cal Date:	May 27, 2026	Last Cal Date:	April 23, 2026
Start time (MST):	14:05	End time (MST):	17:17
Reason:	Routine		

### Calibration Standards

NOX Cal Gas Conc:	62.20	ppm	NO Gas Cylinder #:	DT0036234
NO Cal Gas Conc:	61.90	ppm	NO Cal Gas Expiry:	July 22, 2032
Removed NOX Conc:	62.20	ppm	Removed Cylinder #:	N/A
Removed NO Conc:	61.90	ppm	Removed cyl Expiry:	N/A
NOX gas Diff:			NO gas Diff:	
NH3 Cal Gas Conc:	77.5	ppm	NH3 Gas Cylinder #:	CC15099
Removed NH3 Conc:	77.5	ppm	NH3 Cal Gas Expiry:	September 10, 2026
NH3 gas Diff:			Removed Cylinder #:	
Calibrator Model:	API T700		Serial Number:	5240
ZAG make/model:	API T701		Serial Number:	4602

### Analyzer Information

Analyzer model:	API T201	Analyzer serial #:	215
Converter model:	API T501	Converter serial #:	147
NH3 Range (ppb):	0 - 2000 ppb	Reaction cell Press:	5.50
NOX Range (ppb):	0 - 1000 ppb	Sample Flow:	558

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coefficient:	1.033	1.032	Nt coefficient:	1.036	1.034
NOX coefficient:	1.031	1.031	NO bkgrnd:	0.9	-0.2
NO2 coefficient:	1.000	1.000	NOX bkgrnd:	0.5	0.5
NH3 coefficient:	0.950	0.947	Nt bkgrnd:	4.4	1.0

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.999338	0.994520
NO <sub>x</sub> Cal Offset:	-0.666243	0.253383
NO Cal Slope:	0.999323	0.997264
NO Cal Offset:	-2.265666	0.255112
NO <sub>2</sub> Cal Slope:	0.993109	0.999536
NO <sub>2</sub> Cal Offset:	2.147864	-1.423568
NH3 Cal Slope:	1.003014	0.999504
NH3 Cal Offset:	1.126011	1.747560
Nt Cal Slope:	1.006378	1.003258
Nt Cal Offset:	1.399953	1.799259



# Wood Buffalo Environmental Association

## NO<sub>x</sub> - NO - NO<sub>2</sub> Calibration Report

### NO<sub>x</sub> / NO / Nt As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	Baseline corr NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>	Baseline corr NO Correction factor (Cc/Ic) <i>Limit = 0.9 - 1.0</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.3	-0.7	-2.1	----	----
As found span	4935	64.6	803.7	799.8	803.7	802.5	796.4	800.9	1.0015	1.0043
AF GPT span										
new NO cyl rp										

Baseline Corr As Fd      Nt = 803 ppb      NO<sub>x</sub> = 802.8 ppb      NO = 797.1 ppb  
 Previous Response      Nt = 810.21 ppb      NO<sub>x</sub> = 802.5 ppb      NO = 797.0 ppb

\*Percent Change      Nt(NO) = -0.9%

\*Percent Change      NO<sub>x</sub> = 0.0%

\*Percent Change      NO = 0.0%

\*\*NO<sub>x</sub> Δ (NO to GPT response) =

\* \* = > +/-2% difference initiates investigation

\* = > +/-5% change initiates investigation

### NO<sub>x</sub> / NO / Nt Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated Nt concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated Nt concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	-0.2	0.0	0.2	----	----
High point	4935	64.6	803.7	799.8	803.7	799.1	796.7	801.6	1.0057	1.0039
Mid point	4968	32.3	401.8	399.9	401.8	400.7	402.3	402.7	1.0027	0.9939
Low point	4984	16.2	201.5	200.5	201.5	200.7	198.4	201.7	1.0041	1.0108
Average Correction Factor									1.0042	1.0029

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found zero	----	----	0.0	0.4	----	----
Calibration zero	----	----	0.0	-0.2	----	----
High GPT point (400 ppb O3)	792.7	386.5	410.1	409.6	1.0012	99.9%
Mid GPT point (200 ppb O3)	792.7	590.2	206.4	202.7	1.0181	98.2%
Low GPT point (100 ppb O3)	792.7	692.0	104.6	102.9	1.0163	98.4%
Average Correction Factor					1.0119	98.8%



## Wood Buffalo Environmental Association NH<sub>3</sub> - N<sub>T</sub> Calibration Report

### NH<sub>3</sub> As Found Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH3 concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH3 concentration (ppb) (Ic)	Baseline corr Nt Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>	Baseline corr NH3 Correction factor (Cc/(Ic-zero)) <i>Limit = 0.9 - 1.1</i>
As found zero	5000	0.0	0.0	0.0	0.0	-2.1	-0.3	-1.8	----	----
AF High point	3419	81.3	1800.1	0.0	1800.1	1793.0	6.4	1788.0	1.003	1.006
AF Mid point										
AF Low point										
new NH3 cyl rp										
Baseline Corr As Fd	Nt = 1795.1 ppb	NH3 = 1789.8 ppb							*Percent Change	Nt <sub>(NH3)</sub> = -1.0%
Previous Response	Nt = 1812.9 ppb	NH3 = 1806.6 ppb							*Percent Change	NH3 = -0.9%

\* => +/-5% change initiates investigation

### NH<sub>3</sub> Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated Nt concentration (ppb) (Cc)	Calculated NOX concentration (ppb) (Cc)	Calculated NH3 concentration (ppb) (Cc)	Indicated Nt concentration (ppb) (Ic)	Indicated NOX concentration (ppb) (Ic)	Indicated NH3 concentration (ppb) (Ic)	Nt Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NH3 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibration zero	5000	0.0	0.0	0.0	0.0	0.2	-0.2	0.5	----	----
High point	3419	81.3	1800.1	0.0	1800.1	1805.9	6.6	1799.3	0.997	1.000
Mid point	3455	45.2	1000.8	0.0	1000.8	1009.0	3.8	1005.0	0.992	0.996
Low point	3477	22.6	500.5	0.0	500.5	504.2	2.2	501.9	0.993	0.997
								Average Correction Factor	0.9938	0.9978
NH3 Previous Converter Efficiency =	95.0 %									
NH3 Current Converter Efficiency =	94.7 %									

Notes: Changed the inlet filter after as founds. Adjusted NOx and TNx zero. Adjusted NH3 span. Second high NO reference point for GPT calculations.

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

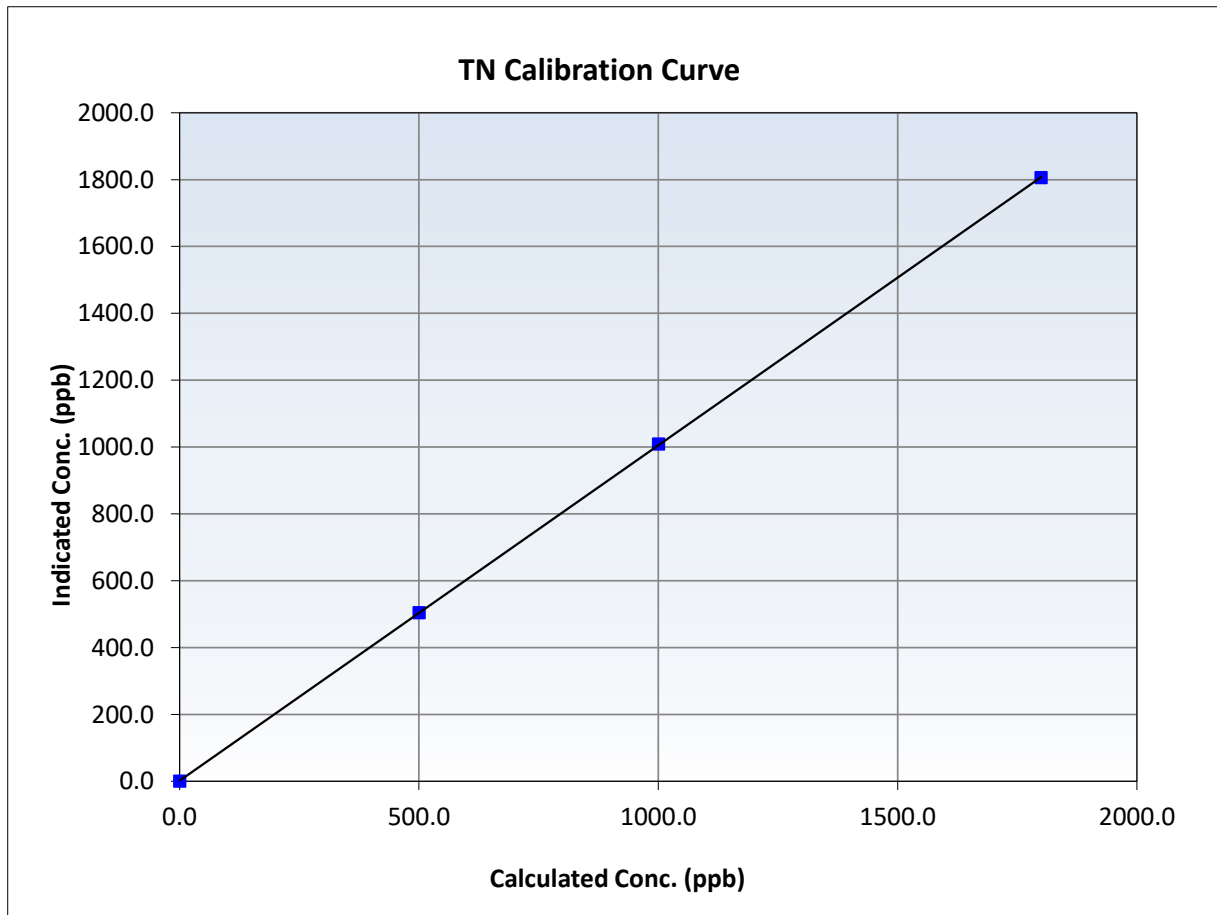
## Nt Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 23, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	14:05	End Time (MST):	17:17
Analyzer make:	API T201	Analyzer serial #:	215

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999991	<i>≥0.995</i>
1800.1	1805.9	0.9968	Slope	1.003258	<i>0.90 - 1.10</i>
1000.8	1009.0	0.9919	Intercept	1.799259	<i>+/-20</i>
500.5	504.2	0.9926			





# Wood Buffalo Environmental Association

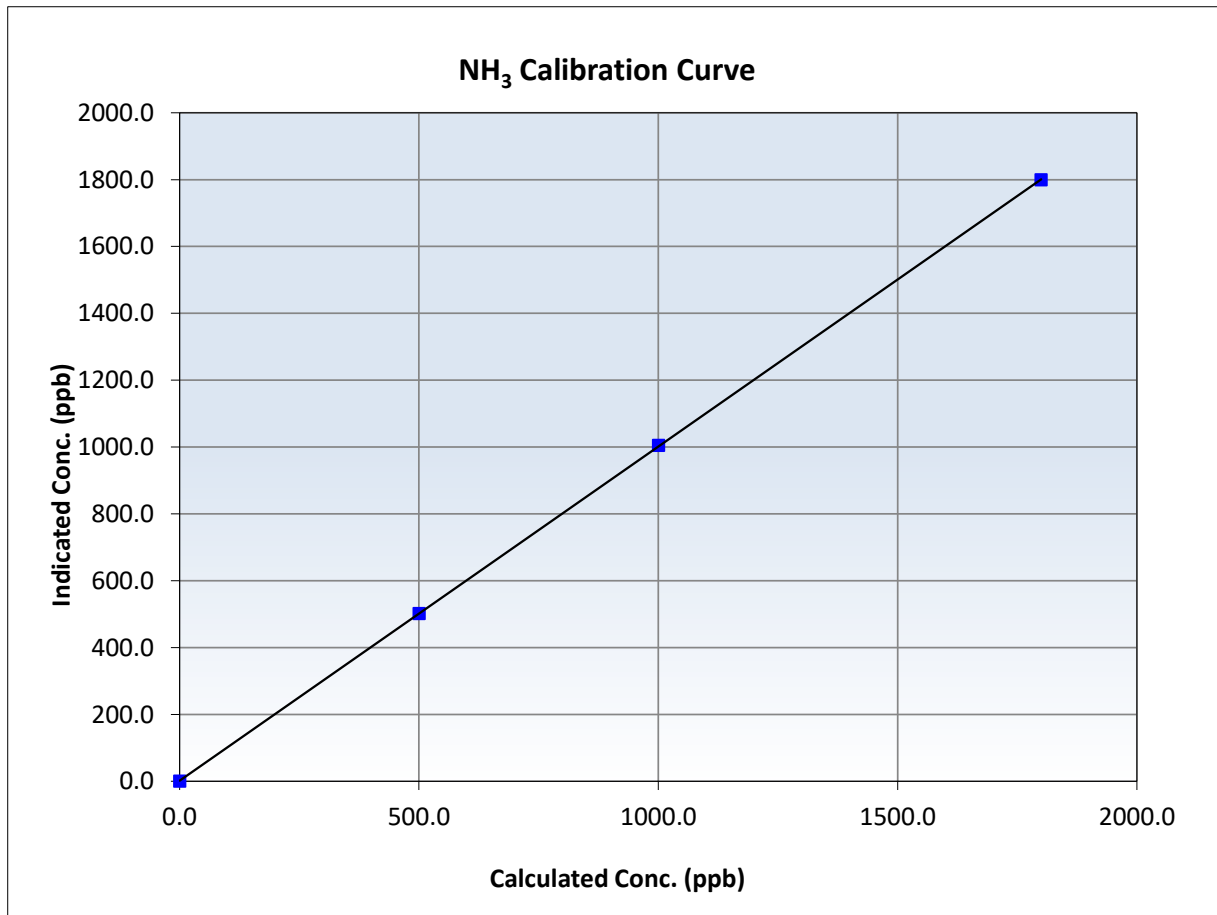
## NH<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 23, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	14:05	End Time (MST):	17:17
Analyzer make:	API T201	Analyzer serial #:	215

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.5	----	Correlation Coefficient	0.999993	<i>≥0.995</i>
1800.1	1799.3	1.0004	Slope	0.999504	<i>0.90 - 1.10</i>
1000.8	1005.0	0.9958	Intercept	1.747560	<i>+/-20</i>
500.5	501.9	0.9972			





# Wood Buffalo Environmental Association

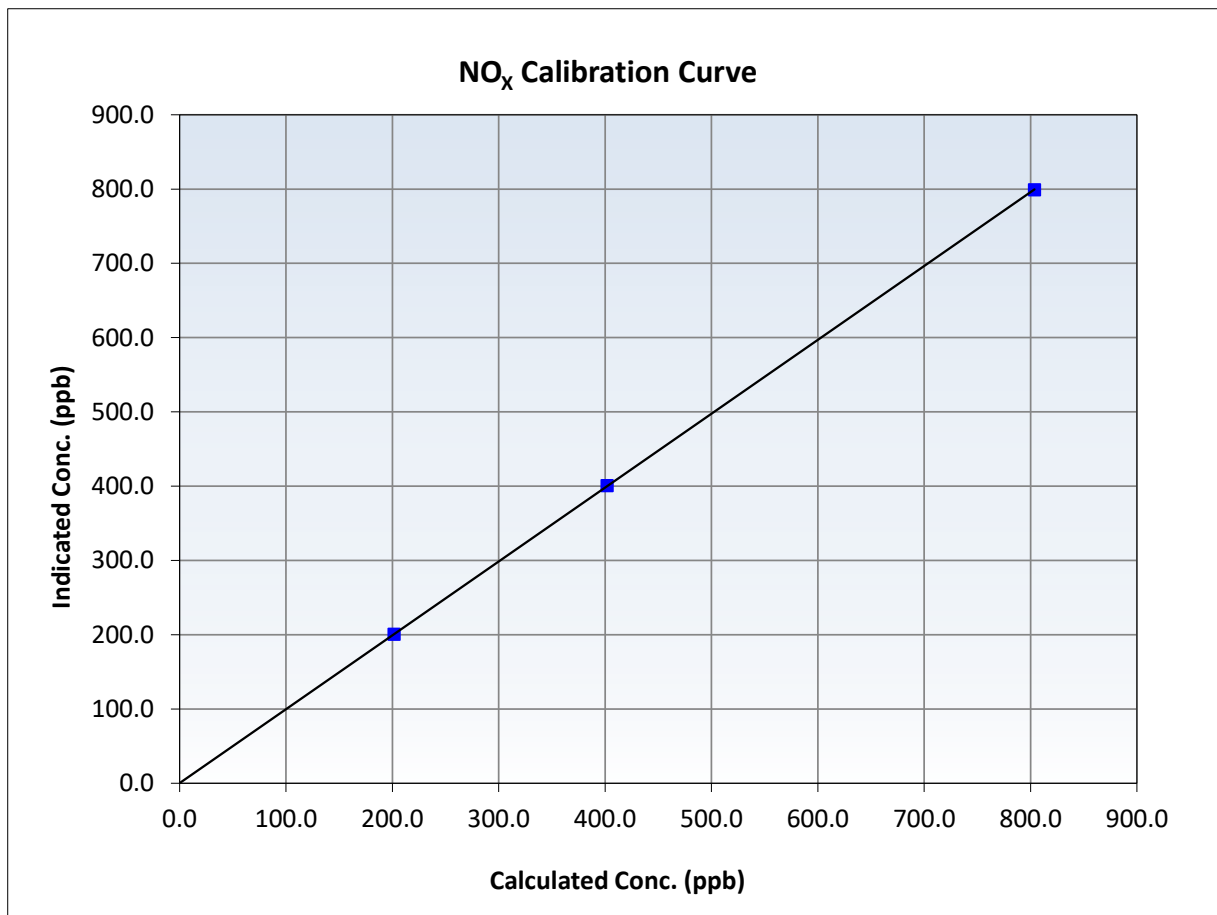
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 23, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:47	End Time (MST):	13:55
Analyzer make:	API T201	Analyzer serial #:	215

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999997	<i>≥0.995</i>
803.7	799.1	1.0057	Slope	0.994520	<i>0.90 - 1.10</i>
401.8	400.7	1.0027	Intercept	0.253383	<i>+/-20</i>
201.5	200.7	1.0041			





# Wood Buffalo Environmental Association

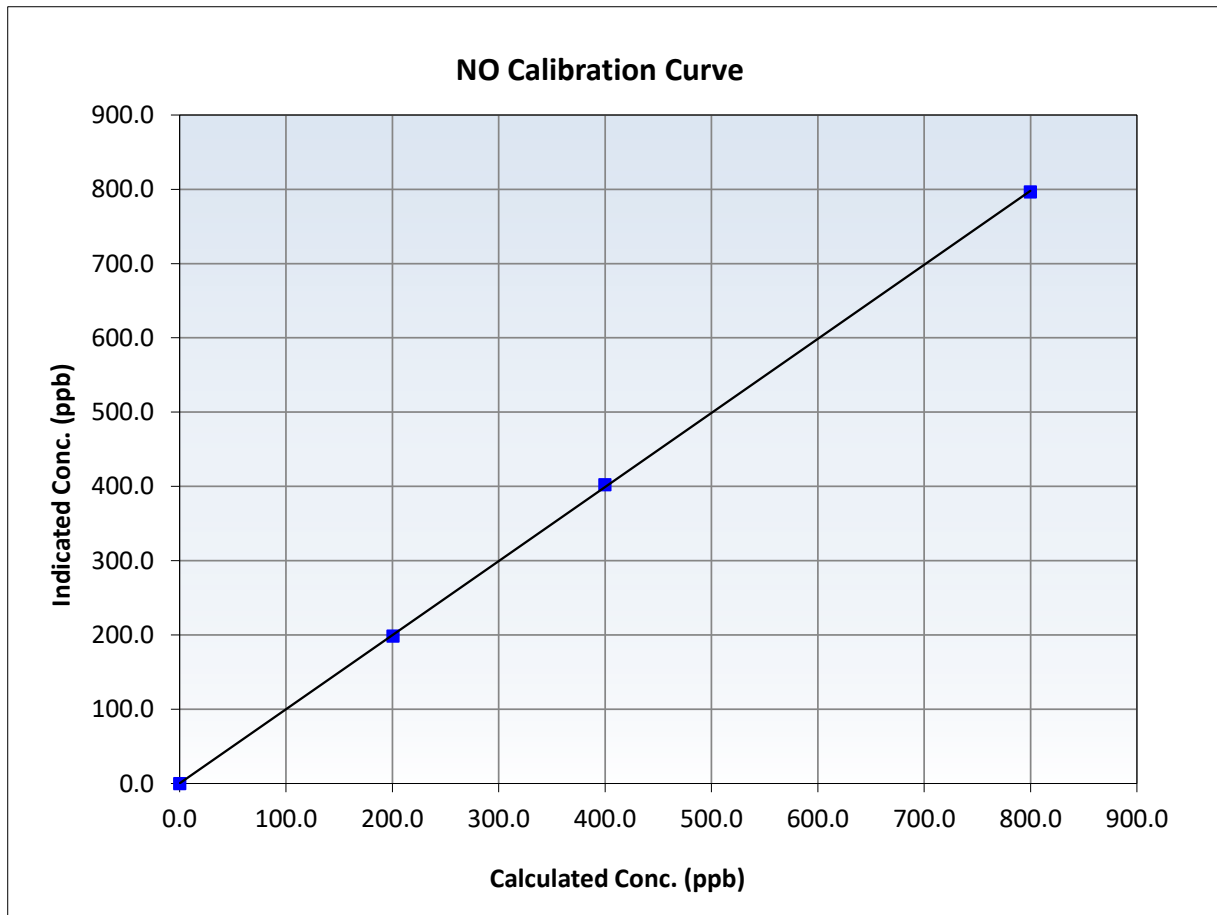
## NO Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 23, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:47	End Time (MST):	13:55
Analyzer make:	API T201	Analyzer serial #:	215

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999955	<i>≥0.995</i>
799.8	796.7	1.0039	Slope	0.997264	<i>0.90 - 1.10</i>
399.9	402.3	0.9939	Intercept	0.255112	<i>+/-20</i>
200.5	198.4	1.0108			





# Wood Buffalo Environmental Association

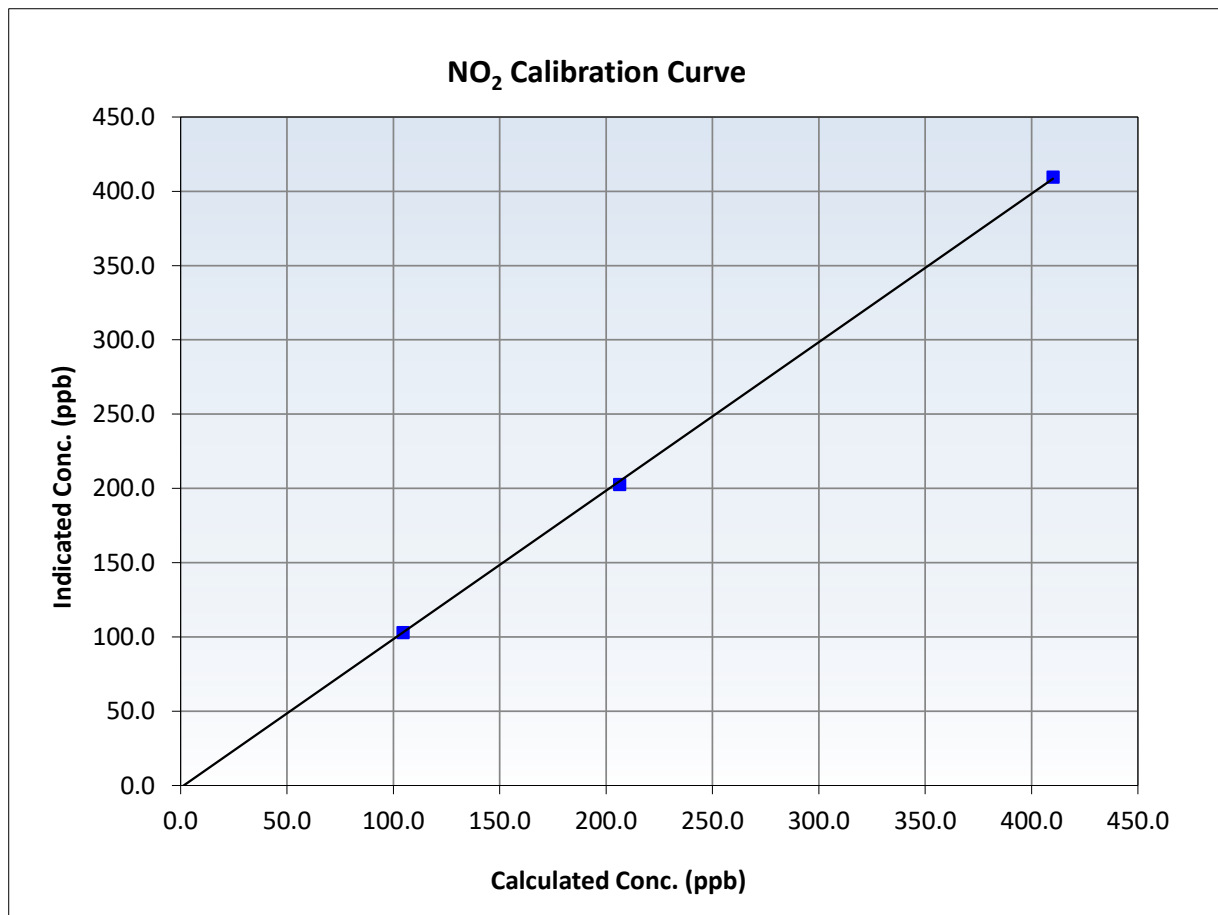
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 23, 2026
Station Name:	Patricia McInnes	Station Number:	AMS 06
Start Time (MST):	8:47	End Time (MST):	13:55
Analyzer make:	API T201	Analyzer serial #:	215

### Calibration Data

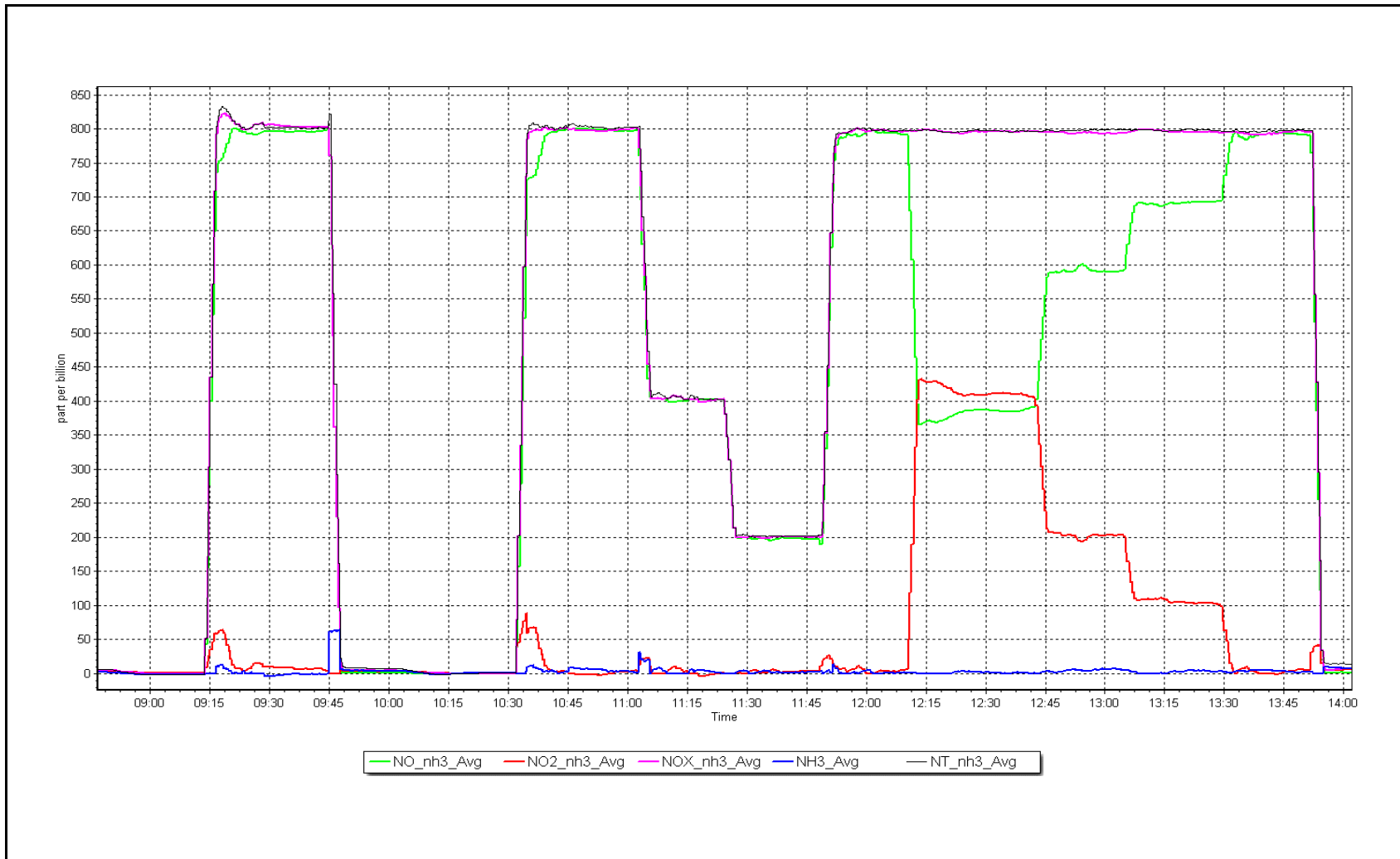
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999918	<i>≥0.995</i>
410.1	409.6	1.0012	Slope	0.999536	<i>0.90 - 1.10</i>
206.4	202.7	1.0181	Intercept	-1.423568	<i>+/-20</i>
104.6	102.9	1.0163			



NO<sub>x</sub> Calibration Plot

Date: May 27, 2026

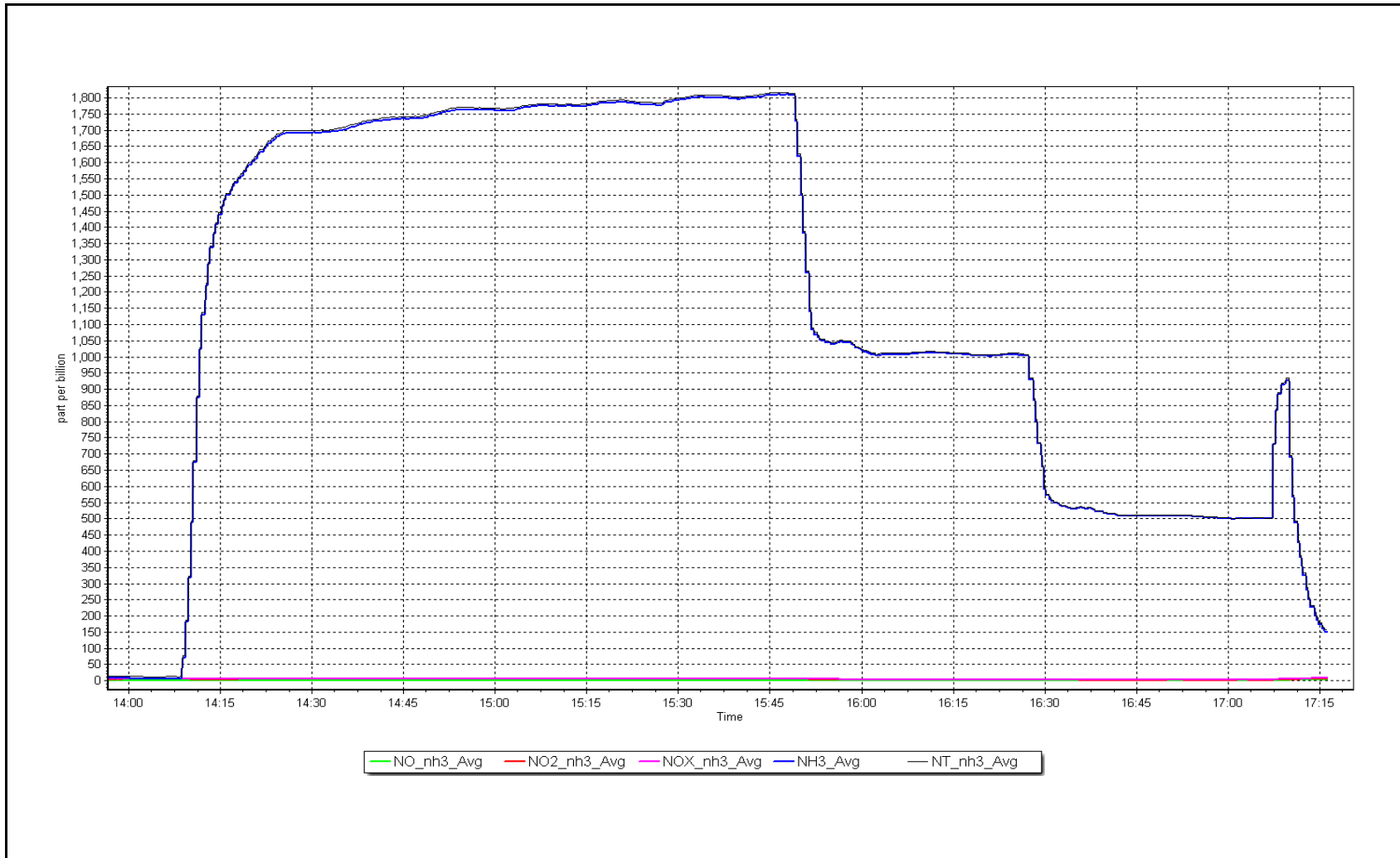
Location: Patricia McInnes



# NH<sub>3</sub> Calibration Plot

Date: May 27, 2026

Location: Patricia McInnes





## **WOOD BUFFALO ENVIRONMENTAL ASSOCIATION**

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS07 ATHABASCA VALLEY MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Athabasca Valley	Station number: AMS07
Calibration Date:	May 5, 2026	Last Cal Date: April 8, 2026
Start time (MST):	9:42	End time (MST): 12:33
Reason:	Routine	

### Calibration Standards

Cal Gas Concentration:	50.06	ppm	Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #:	CC320556		
Removed Cal Gas Conc:	50.06	ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA		Diff between cyl:
Calibrator Model:	API T700		Serial Number: 3805
Zero Air Gen Model:	API 701H		Serial Number: 198

### Analyzer Information

Analyzer make:	Thermo 43i-LTE	Serial Number: 1507864683
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004849	1.000291	Backgd or Offset:	2.73	2.70
Calibration intercept:	2.402830	2.544049	Coeff or Slope:	0.874	0.861

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4920	79.8	799.0	812.8	0.983
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	812.7	Previous response	805.3	*% change	0.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4920	79.8	799.0	800.0	0.999
Mid point	4960	39.9	399.5	405.2	0.986
Low point	4980	20.0	200.2	203.8	0.983
As left zero	5000	0.0	0.0	0.3	----
As left span	4920	79.8	799.0	802.3	0.996
Average Correction Factor:					0.989

Notes: Sample inlet filter was changed after as founds. Adjusted span only.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

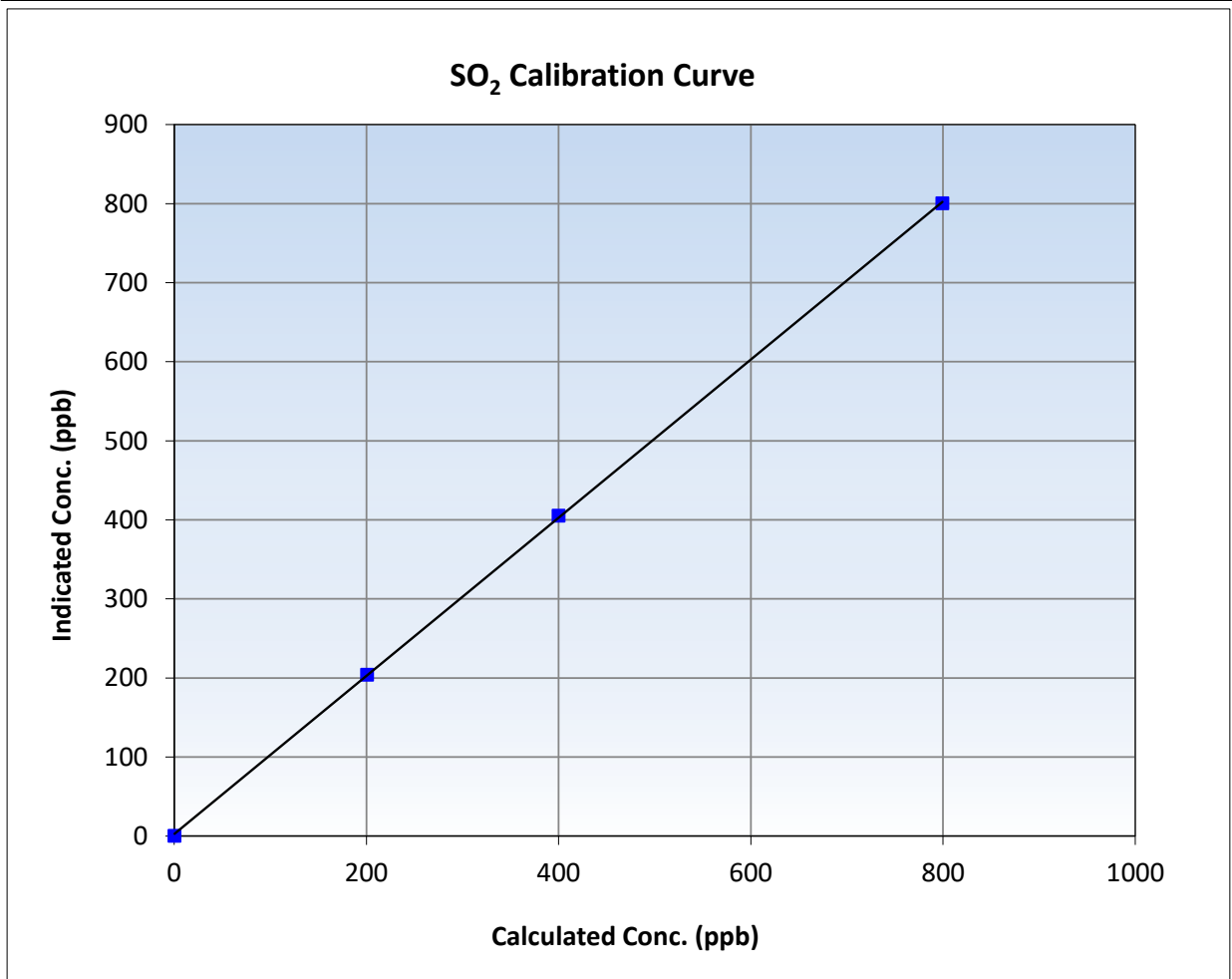
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 8, 2026
Station Name:	Athabasca Valley	Station Number:	AMS07
Start Time (MST):	9:42	End Time (MST):	12:33
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1507864683

### Calibration Data

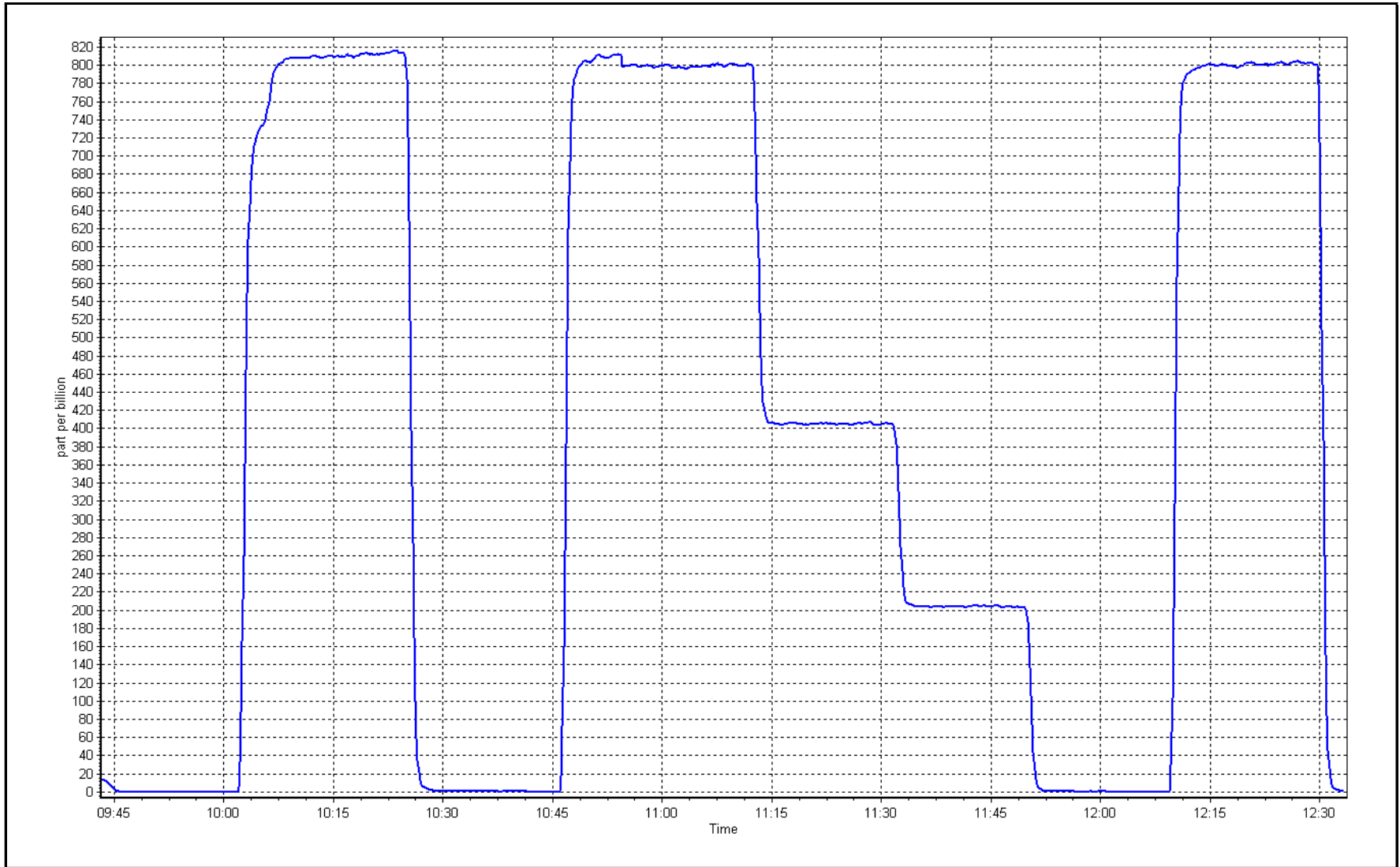
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.3	----	Correlation Coefficient	0.999947	≥0.995
799.0	800.0	0.9987	Slope	1.000291	0.90 - 1.10
399.5	405.2	0.9859	Intercept	2.544049	+/-30
200.2	203.8	0.9825			



SO2 Calibration Plot

Date: May 5, 2026

Location: Athabasca Valley





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name: Athabasca Valley	Station number: AMS07
Calibration Date: May 7, 2026	Last Cal Date: April 9, 2026
Start time (MST): 8:50	End time (MST): 12:43
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 5.25 ppm	Cal Gas Exp Date: January 3, 2026
Cal Gas Cylinder #: CC504080	
Removed Cal Gas Conc: 5.25 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #: NA	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 3805
ZAG Make/Model: API T701H	Serial Number: 198

### Analyzer Information

Analyzer make: Thermo 43i LTE	Analyzer serial #: 1180540018
Converter make: CDN-101	Converter serial #: 551
Analyzer Range: 0 - 100 ppb	Converter Temp: 840 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002662	1.003239	Backgd or Offset:	2.7	2.7
Calibration intercept:	0.037856	-0.082167	Coeff or Slope:	0.887	0.887

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4925	75.5	79.3	79.2	1.000
As found Mid point	4962	37.7	39.6	39.6	0.997
As found Low point	4981	18.9	19.8	19.5	1.013
New cylinder response					
Baseline Corr As found:	79.3	Prev response:	79.52	*% change:	-0.3%
Baseline Corr 2nd AF pt:	39.7	AF Slope:	1.001648	AF Intercept:	-0.182106
Baseline Corr 3rd AF pt:	19.6	AF Correlation:	0.999982	* = > +/-5% change initiates investigation	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4925	75.5	79.3	79.5	0.998
Mid point	4962	37.7	39.6	39.7	0.998
Low point	4981	18.9	19.9	19.7	1.008
As left zero	5000	0.0	0.0	0.0	----
As left span	4925	75.5	79.3	79.6	0.996
SO2 Scrubber Check	4920	79.2	792.1	0.0	----
Date of last scrubber change:	8-Aug-25		Ave Corr Factor		1.001
Date of last converter efficiency test:	Friday, April 22, 2022				

Notes: Sample inlet filter was changed after multi point as founds. Scrubber check done and passed. No adjustments made.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

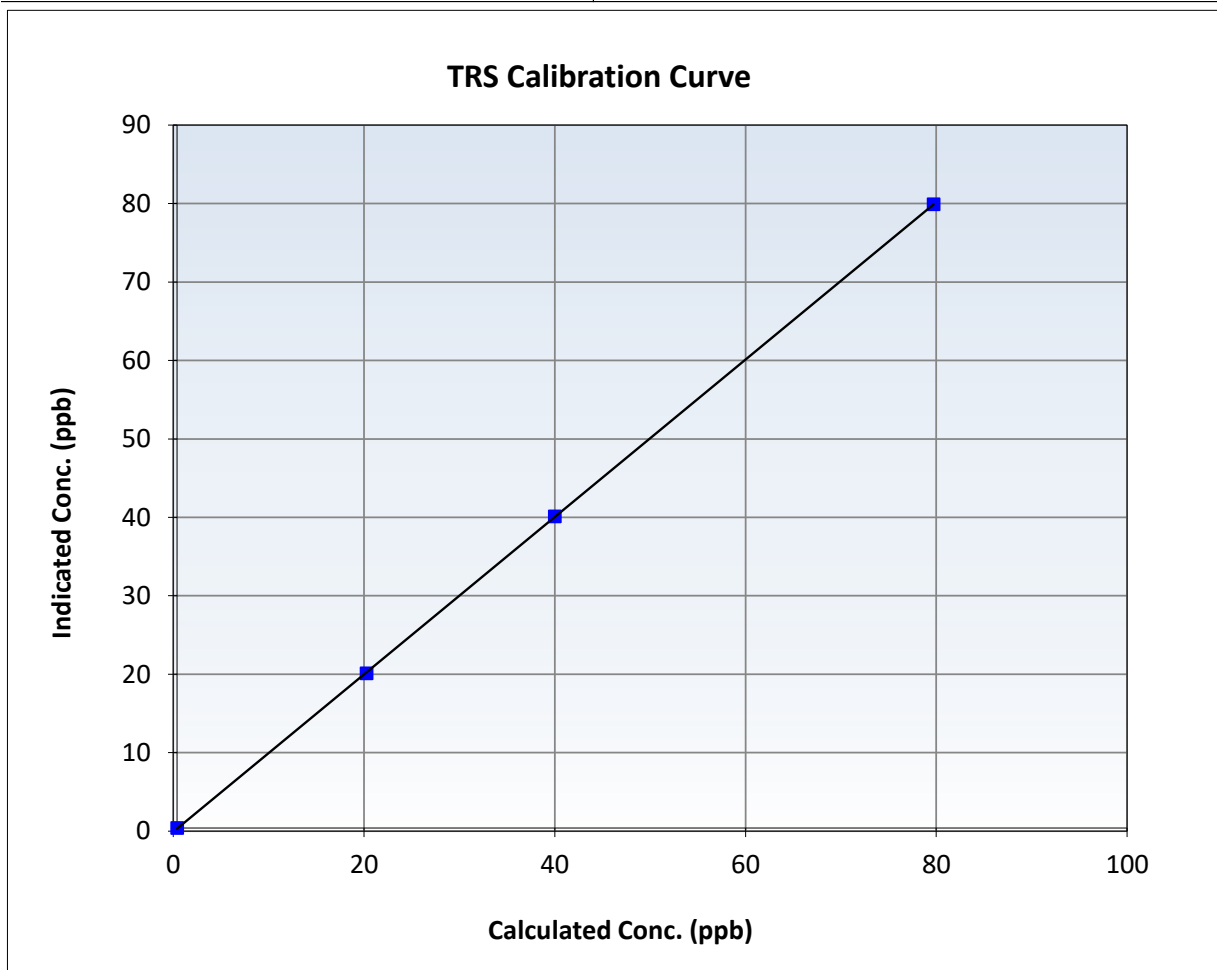
## TRS Calibration Summary

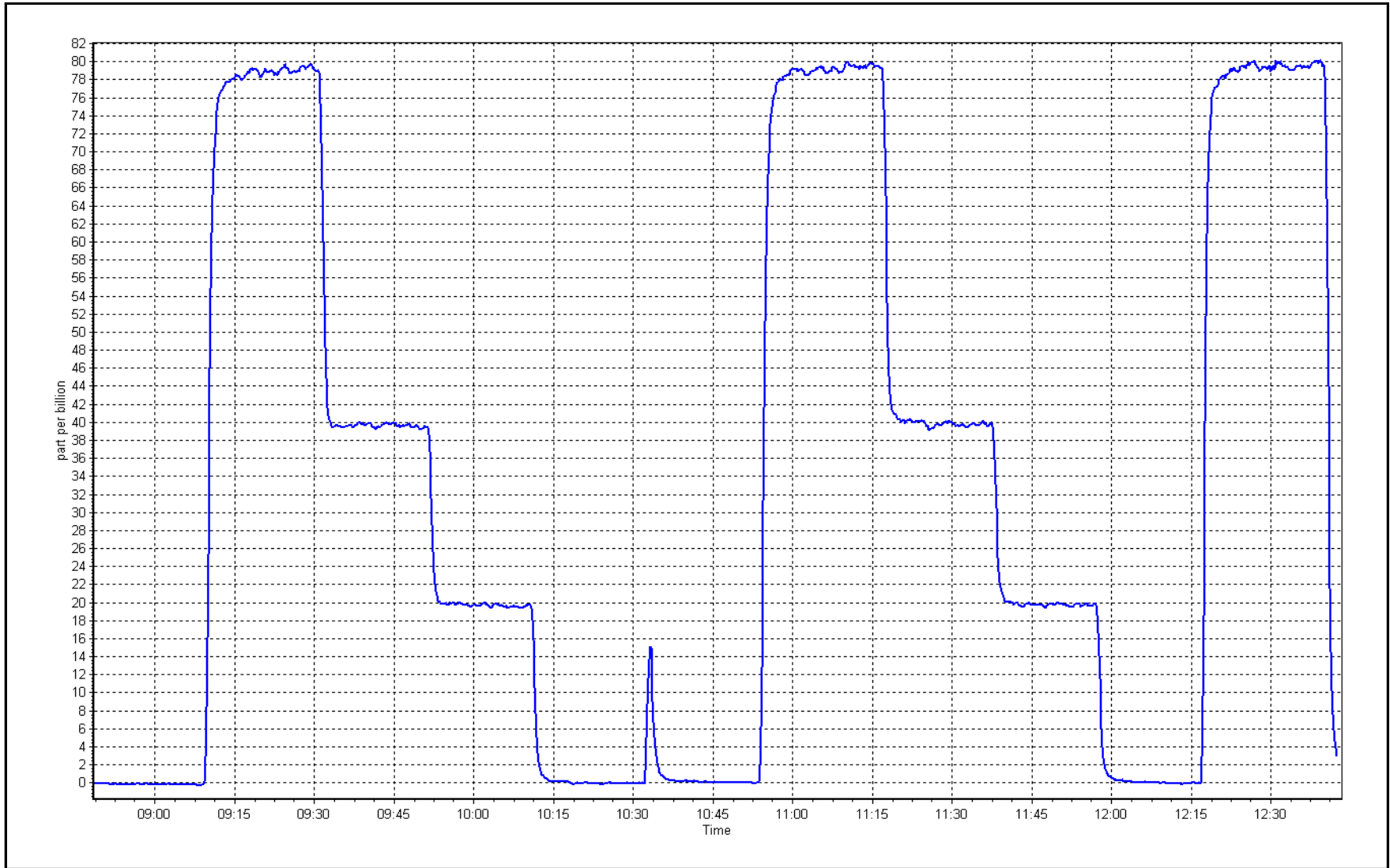
### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 9, 2026
Station Name:	Athabasca Valley	Station Number:	AMS07
Start Time (MST):	8:50	End Time (MST):	12:43
Analyzer make:	Thermo 43i LTE	Analyzer serial #:	1180540018

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999992	$\geq 0.995$
79.3	79.5	0.9976	Slope	1.003239	$0.90 - 1.10$
39.6	39.7	0.9977	Intercept	-0.082167	$\pm 3$
19.9	19.7	1.0080			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Athabasca Valley	Station number:	AMS 07
Calibration Date:	May 5, 2026	Last Cal Date:	April 7, 2026
Start time (MST):	9:42	End time (MST):	12:33
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC320556	Cal Gas Expiry Date:	March 10, 2031
CH4 Cal Gas Conc.	496.0 ppm	CH4 Equiv Conc.	1059.8 ppm
C3H8 Cal Gas Conc.	205.0 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	496.0 ppm	CH4 Equiv Conc.	1059.8 ppm
Removed C3H8 Conc.	205.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3805
Zero Air Gen model:	Teledyne API T701H	Serial Number:	198

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1331259520
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.77E-04	2.73E-04	5.47E-05	5.35E-05
CH4 Retention time:	14.4	14.4	164652	168514
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.8	16.91	17.26	0.980
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.26	Prev response	16.97	*% change	1.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.8	16.91	16.93	0.999
Mid point	4960	39.9	8.46	8.50	0.994
Low point	4980	20.0	4.24	4.30	0.987
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.8	16.91	16.95	0.998
Average Correction Factor					0.993

Notes: Sample inlet filter was changed after as founds. Adjusted span only.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.8	9.00	9.24	0.973
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.24	Prev response	9.05	*% change	2.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.8	9.00	9.03	0.997
Mid point	4960	39.9	4.50	4.55	0.989
Low point	4980	20.0	2.26	2.31	0.978
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.8	9.00	9.04	0.995
Average Correction Factor					0.988

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.8	7.92	8.01	0.989
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.01	Prev response	7.93	*% change	1.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.8	7.92	7.91	1.001
Mid point	4960	39.9	3.96	3.95	1.001
Low point	4980	20.0	1.98	1.99	0.995
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.8	7.92	7.91	1.001
Average Correction Factor					0.999

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.000347	1.000221
THC Cal Offset:	0.054647	0.029048
CH <sub>4</sub> Cal Slope:	0.999432	0.998060
CH <sub>4</sub> Cal Offset:	0.014620	0.005063
NMHC Cal Slope:	1.001026	1.001831
NMHC Cal Offset:	0.040027	0.024384

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

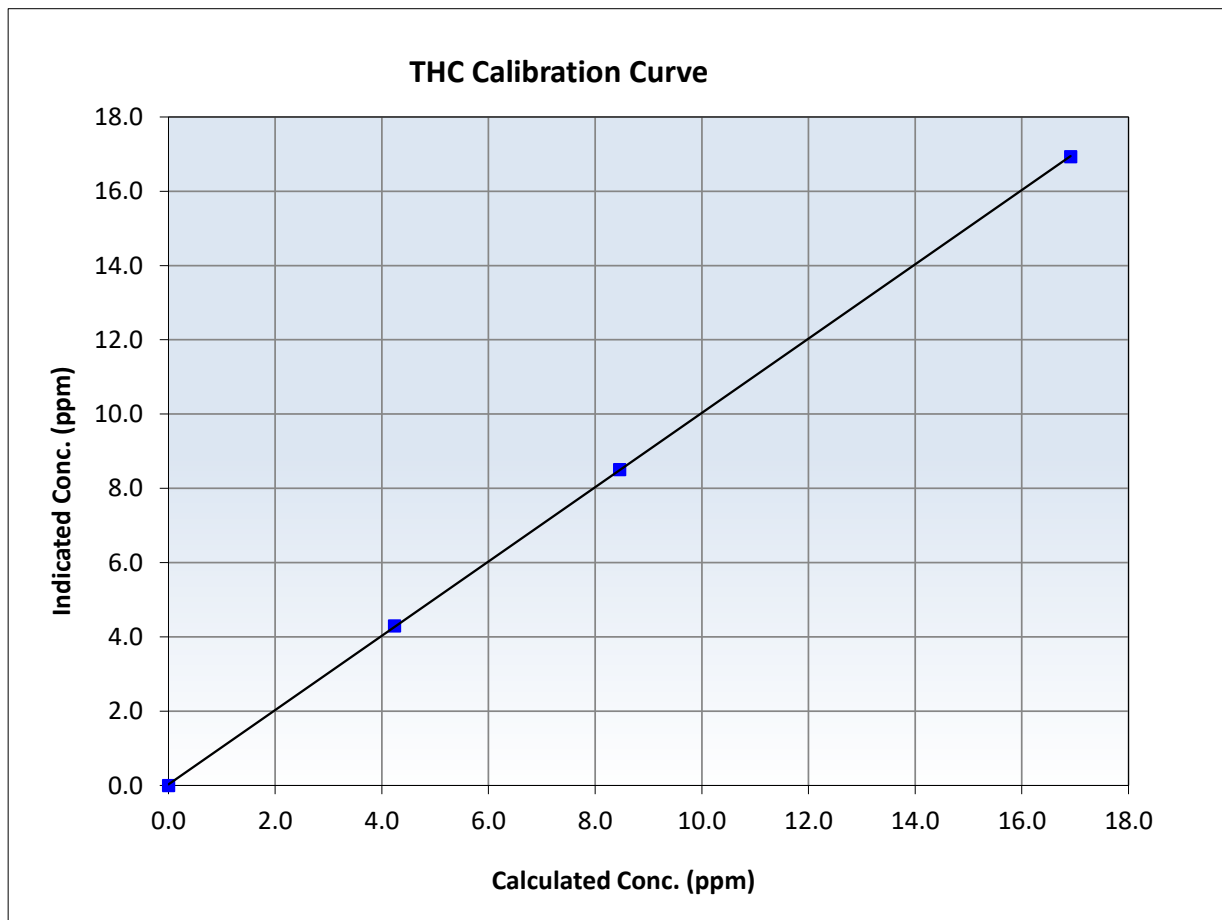
## THC Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 7, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:42	End Time (MST):	12:33
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259520

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999986	<i>≥0.995</i>
16.91	16.93	0.9990	Slope	1.000221	<i>0.90 - 1.10</i>
8.46	8.50	0.9945	Intercept	0.029048	<i>+/-0.5</i>
4.24	4.30	0.9865			





# Wood Buffalo Environmental Association

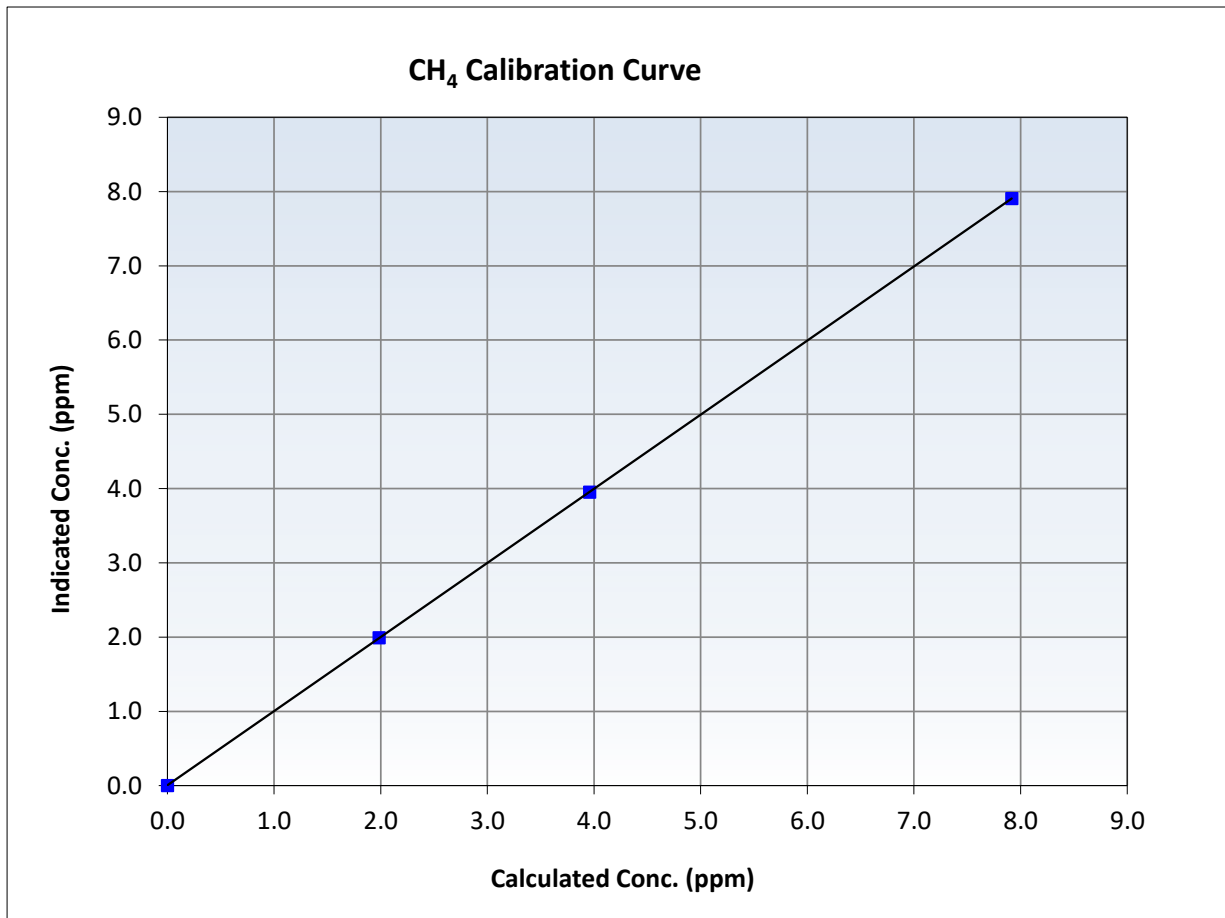
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 7, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:42	End Time (MST):	12:33
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259520

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	≥0.995
7.92	7.91	1.0015	Slope	0.90 - 1.10
3.96	3.95	1.0011	Intercept	+/-0.5
1.98	1.99	0.9955		





# Wood Buffalo Environmental Association

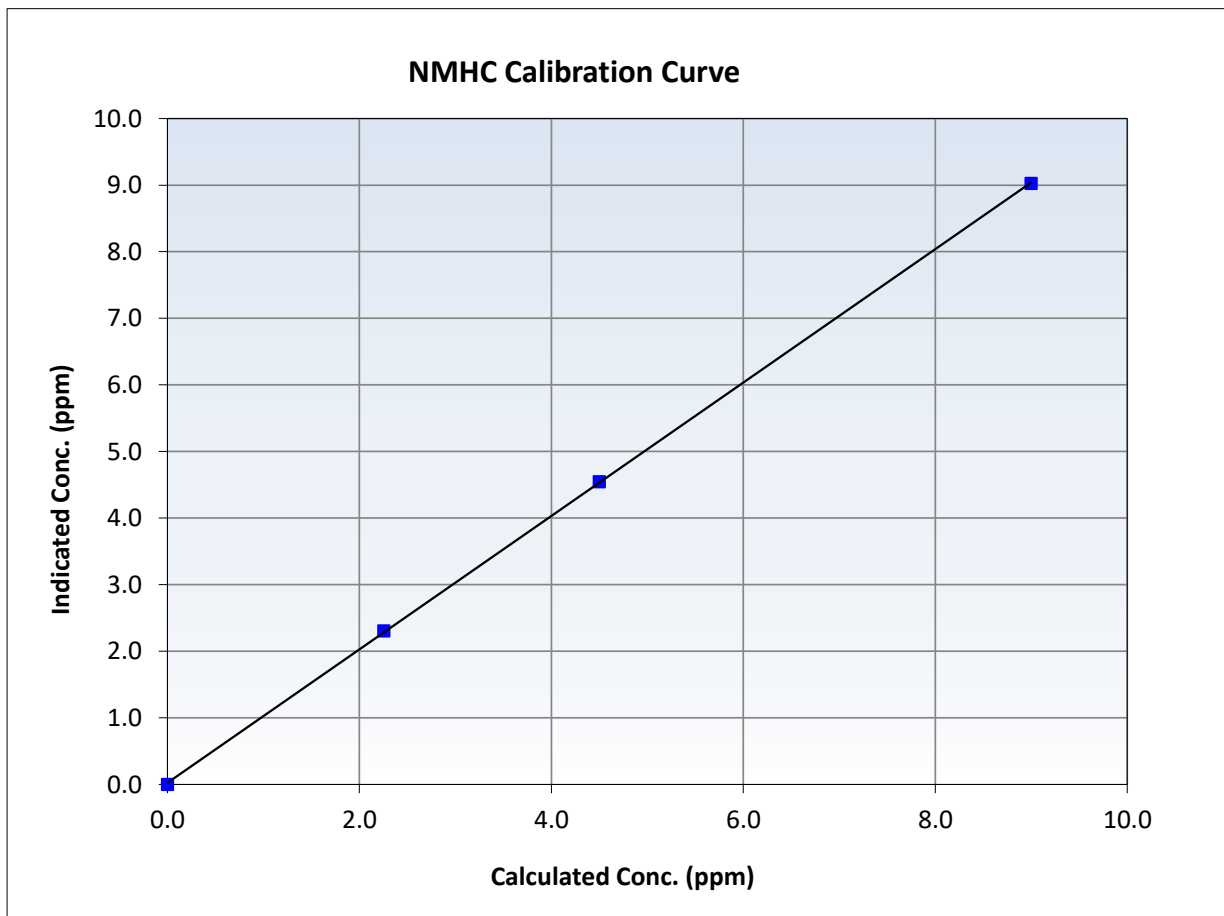
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 7, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:42	End Time (MST):	12:33
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259520

### Calibration Data

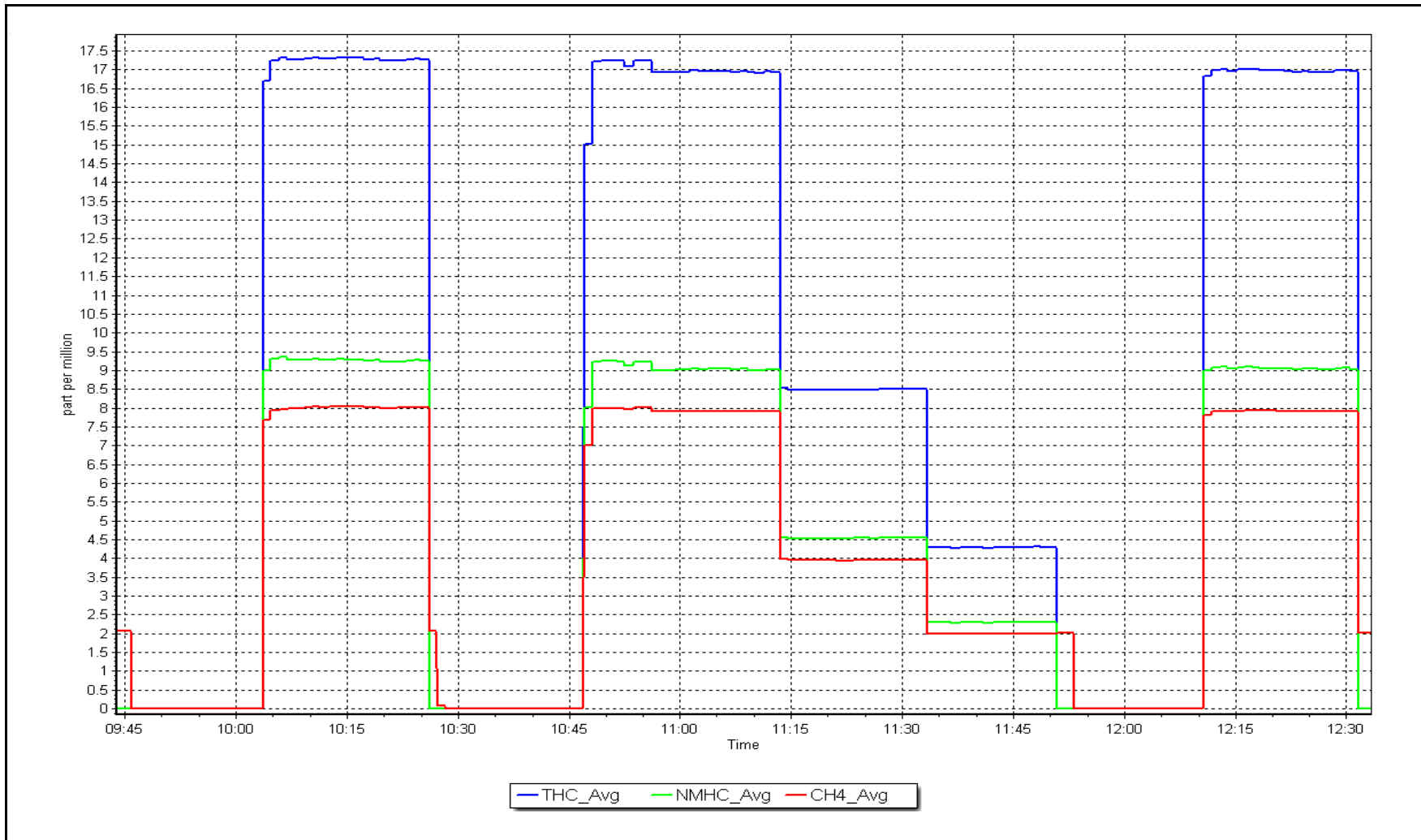
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999966	<i>≥0.995</i>
9.00	9.03	0.9970	Slope	1.001831	<i>0.90 - 1.10</i>
4.50	4.55	0.9892	Intercept	0.024384	<i>+/-0.5</i>
2.26	2.31	0.9783			



NMHC Calibration Plot

Date: May 5, 2026

Location: Athabasca Valley





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Athabasca Valley  
 Station number: AMS 07  
 Calibration Date: May 11, 2026  
 Last Cal Date: April 8, 2026  
 Start time (MST): 9:10  
 End time (MST): 13:37  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0033919  
 NOX Cal Gas Conc: 60.10 ppm  
 Removed Cylinder #: N/A  
 Removed Gas NOX Conc: 60.10 ppm  
 NOX gas Diff:  
 Calibrator Model: API T750  
 ZAG make/model: API T751H  
 Cal Gas Expiry Date: January 9, 2032  
 NO Cal Gas Conc: 59.90 ppm  
 Removed Gas Exp Date: N/A  
 Removed Gas NO Conc: 59.90 ppm  
 NO gas Diff:  
 Serial Number: 276  
 Serial Number: 321

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.5	-0.3	-0.2	----	----
AF High point	4933	66.8	803.0	800.3	2.7	798.1	792.6	5.5	1.0055	1.0093
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 806.7 ppb		NO = 802.6 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -1.0%	
Baseline Corr 1st pt	NO <sub>x</sub> = 798.6 ppb		NO = 792.9 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -1.2%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1160120024

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.002450	1.001012
NO <sub>x</sub> Cal Offset:	1.731869	1.811889
NO Cal Slope:	1.000613	0.999056
NO Cal Offset:	1.771923	1.791932
NO <sub>2</sub> Cal Slope:	1.003636	1.004737
NO <sub>2</sub> Cal Offset:	0.204668	0.969964

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.911	0.920	NO bkgnd or offset:	6.5	6.6
NOX coeff or slope:	1.005	1.005	NOX bkgnd or offset:	7.0	7.1
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	184.2	183.9

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.3	-0.1	-0.2	----	----
High point	4933	66.8	803.0	800.3	2.7	804.2	800.0	4.3	0.9985	1.0004
Mid point	4966	33.4	401.5	400.2	1.3	405.8	403.7	2.1	0.9894	0.9913
Low point	4983	16.7	200.7	200.1	0.7	204.2	202.8	1.4	0.9831	0.9866
As left zero	5000	0.0	0.0	0.0	0.0	-0.5	-0.2	-0.3	----	----
As left span	4933	66.8	803.0	398.9	404.1	804.6	398.9	405.7	0.9980	1.0000
Average Correction Factor									0.9903	0.9927

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	796.3	396.8	402.2	404.4	0.9945	100.6%
Mid GPT point	796.3	602.5	196.5	199.2	0.9863	101.4%
Low GPT point	796.3	700.2	98.8	101.2	0.9760	102.5%
Average Correction Factor					0.9856	101.5%

Notes:

Adjusted span only.

Calibration Performed By:

Sean Bala



# Wood Buffalo Environmental Association

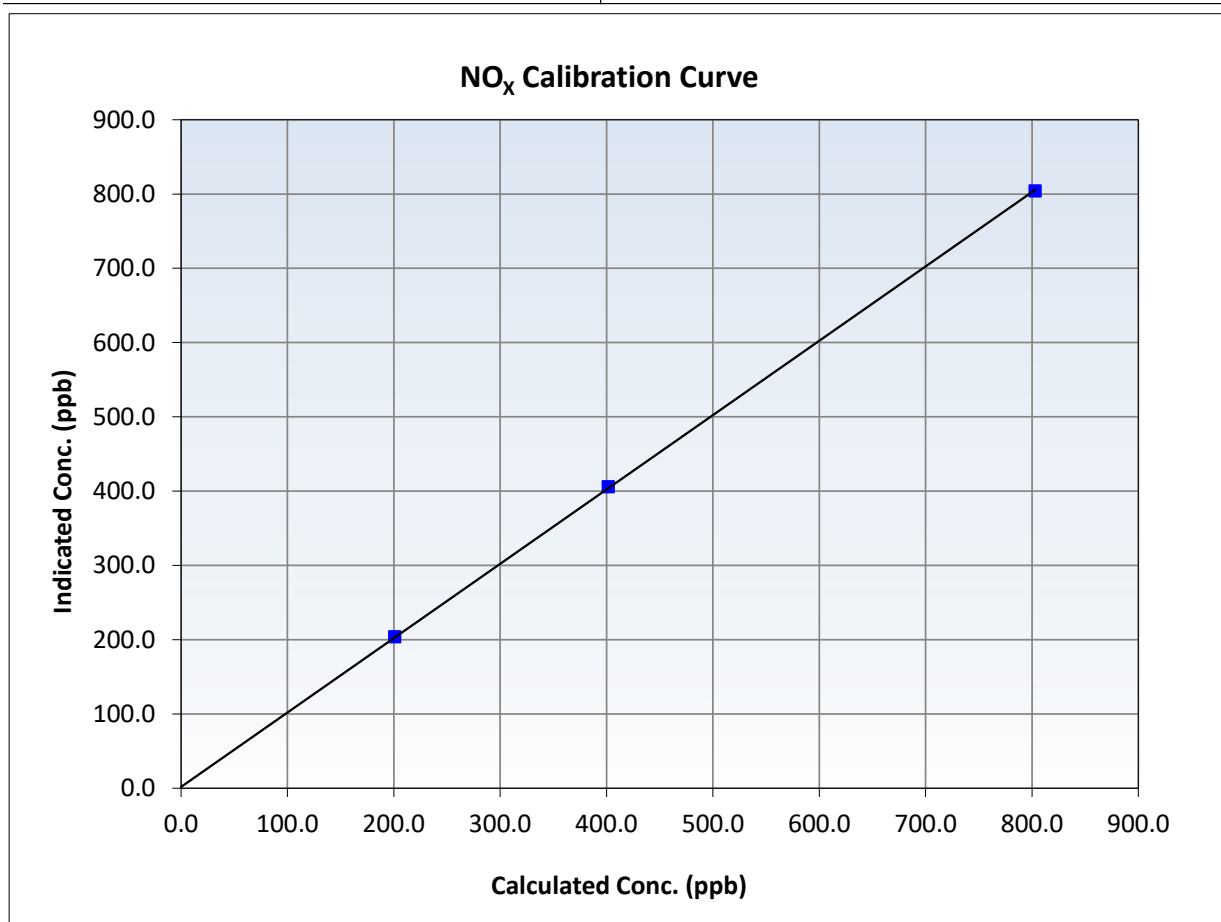
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:10	End Time (MST):	13:37
Analyzer make:	Thermo 42i	Analyzer serial #:	1160120024

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.3	----	Correlation Coefficient	0.999964	≥0.995
803.0	804.2	0.9985	Slope	1.001012	0.90 - 1.10
401.5	405.8	0.9894	Intercept	1.811889	+/-20
200.7	204.2	0.9831			





# Wood Buffalo Environmental Association

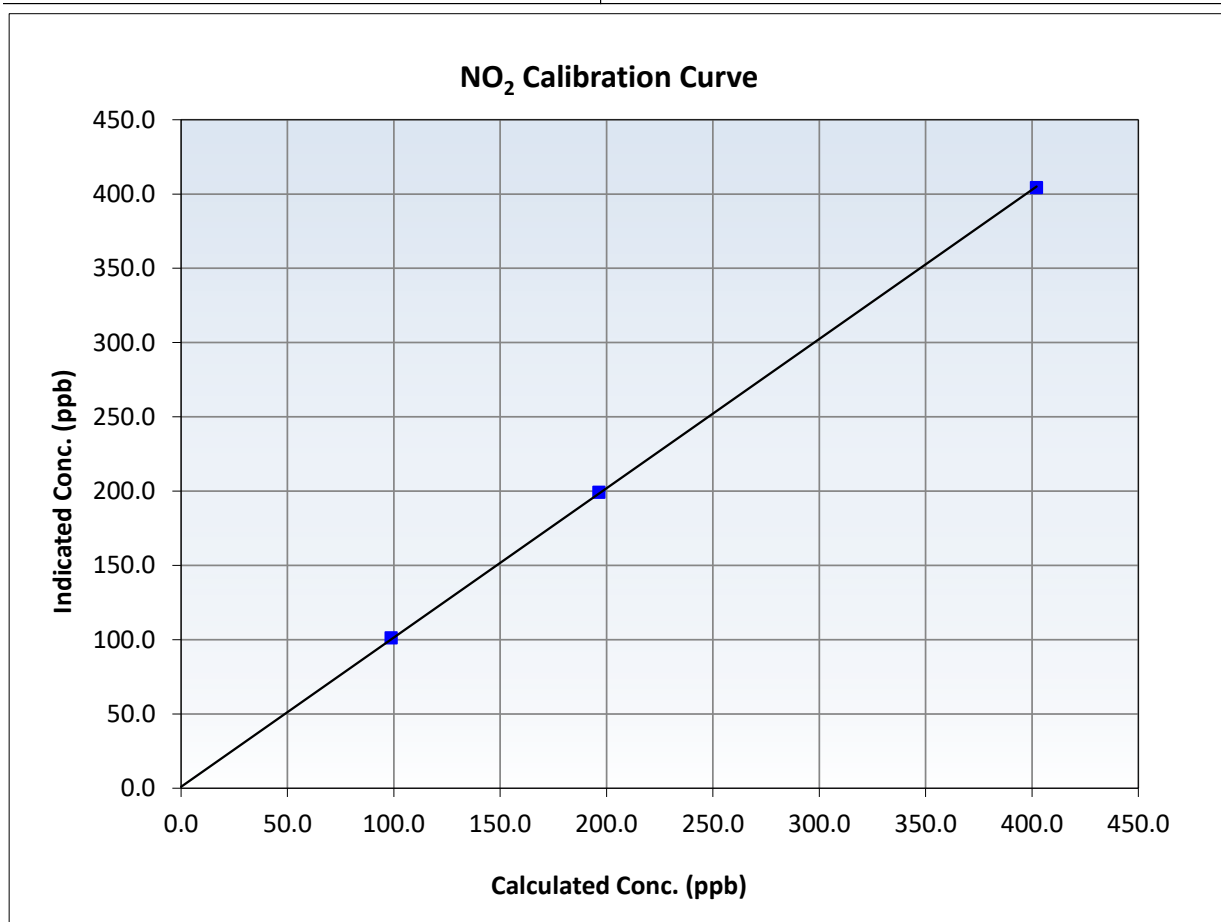
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:10	End Time (MST):	13:37
Analyzer make:	Thermo 42i	Analyzer serial #:	1160120024

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999961	≥0.995
402.2	404.4	0.9945	Slope	1.004737	0.90 - 1.10
196.5	199.2	0.9863	Intercept	0.969964	+/-20
98.8	101.2	0.9760			





# Wood Buffalo Environmental Association

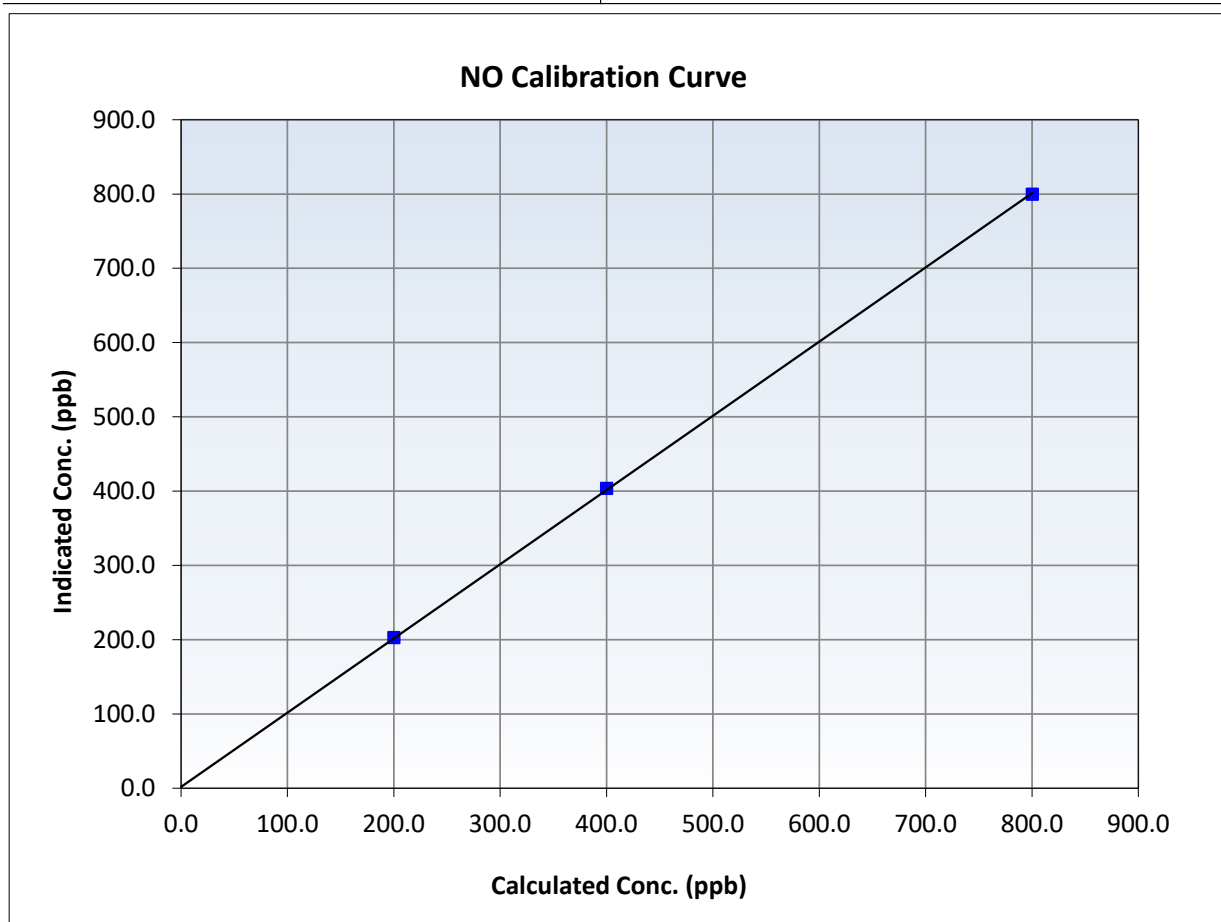
## NO Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	9:10	End Time (MST):	13:37
Analyzer make:	Thermo 42i	Analyzer serial #:	1160120024

### Calibration Data

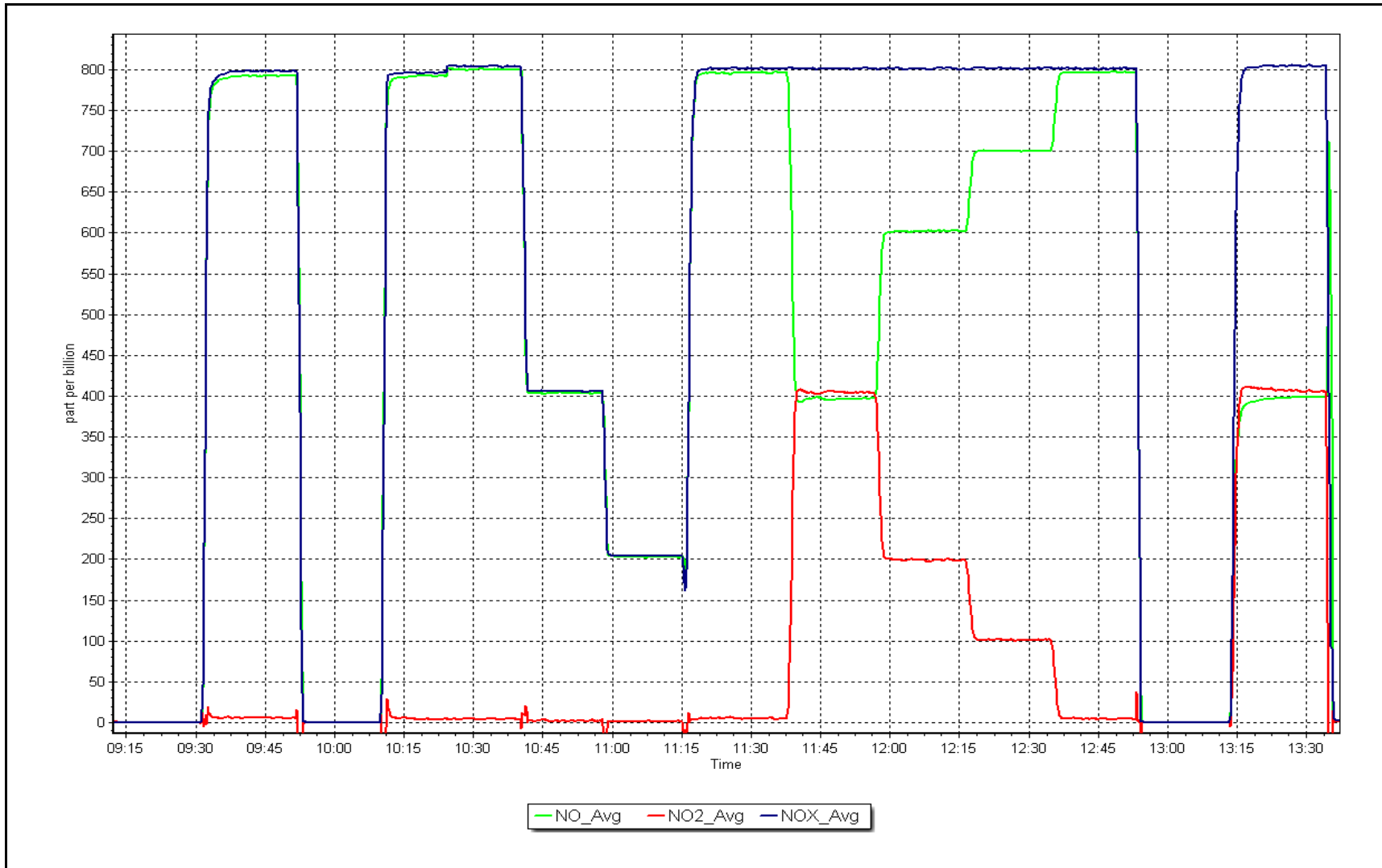
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999968	<span style="color: red;">≥0.995</span>
800.3	800.0	1.0004	Slope	0.999056	<span style="color: red;">0.90 - 1.10</span>
400.2	403.7	0.9913	Intercept	1.791932	<span style="color: red;">+/-20</span>
200.1	202.8	0.9866			



NO<sub>x</sub> Calibration Plot

Date: May 11, 2026

Location: Athabasca Valley





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Athabasca Valley	Station number:	AMS07
Calibration Date:	May 13, 2026	Last Cal Date:	April 2, 2026
Start time (MST):	9:08	End time (MST):	11:47
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	3805
Calibrator Make/Model:	Teledyne API T700	Serial Number:	198
ZAG Make/Model:	Teledyne API T701H		

### Analyzer Information

Analyzer make:	Thermo 49i	Analyzer serial #:	1507964700
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001314	0.994143	Backgd or Offset:	-0.2	-0.2
Calibration intercept:	1.020000	1.000000	Coeff or Slope:	1.038	1.038

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	NA	0.0	-0.3	----
As found High point	5000	1876.6	400.0	397.3	1.006
As found Mid point					
As found Low point					
Baseline Corr As found:	397.6	Previous response	401.5	*% change	-1.0%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	NA	0.0	0.0	----
High point	5000	1876.6	400.0	398.0	1.005
Mid point	5000	1253.9	200.0	200.8	0.996
Low point	5000	957.2	100.0	101.1	0.989
As left zero	5000	NA	0.0	0.1	----
As left span	5000	1876.6	400.0	403.3	0.992
Average Correction Factor					0.997

Notes: Sample inlet filter changed after as founds. No adjustment.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

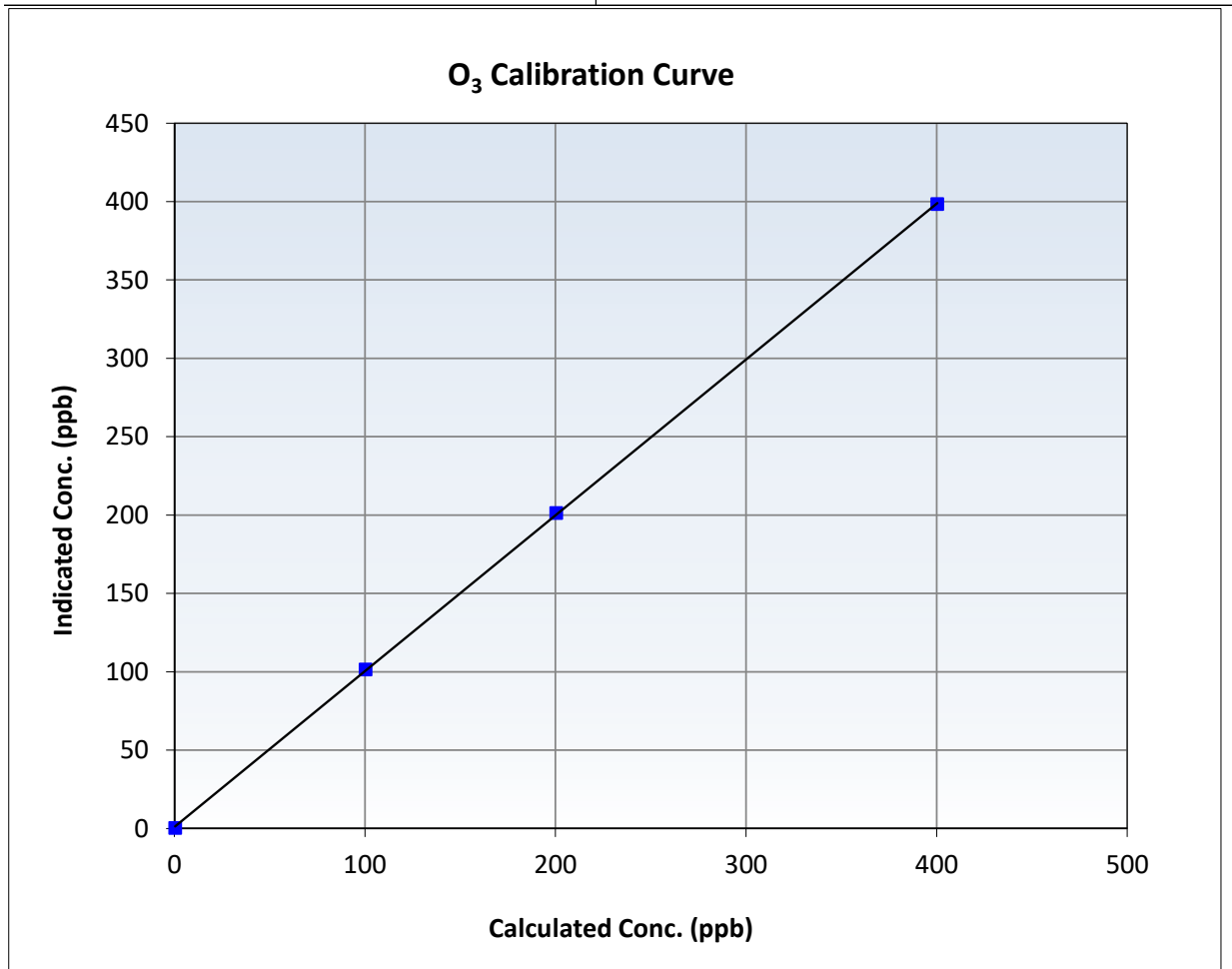
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 2, 2026
Station Name:	Athabasca Valley	Station Number:	AMS07
Start Time (MST):	9:08	End Time (MST):	11:47
Analyzer make:	Thermo 49i	Analyzer serial #:	1507964700

### Calibration Data

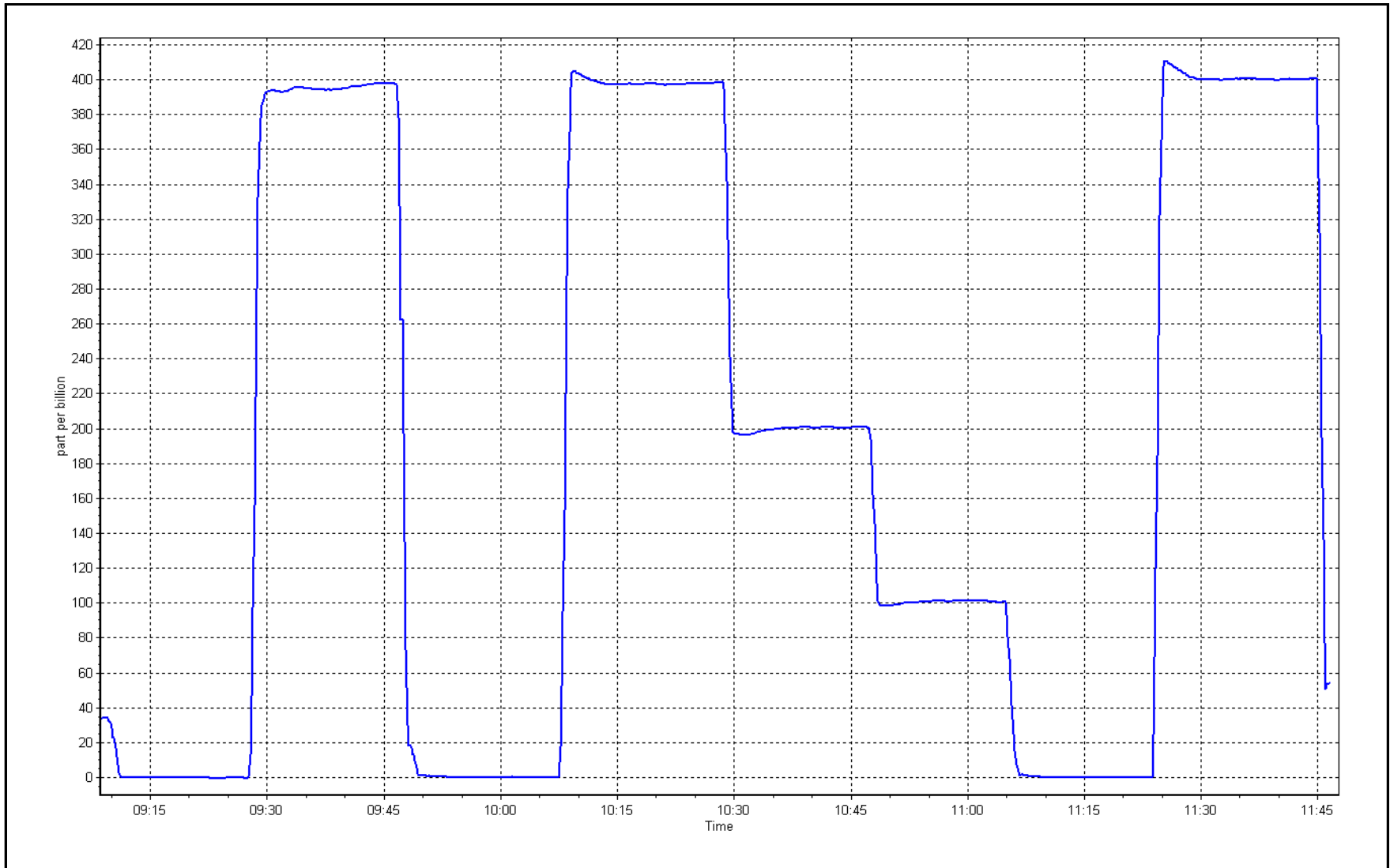
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999967	<span style="color: red;">≥0.995</span>
400.0	398.0	1.0050	Slope	0.994143	<span style="color: red;">0.90 - 1.10</span>
200.0	200.8	0.9960	Intercept	1.000000	<span style="color: red;">+/- 5</span>
100.0	101.1	0.9891			



O<sub>3</sub> Calibration Plot

Date: May 13, 2026

Location: Athabasca Valley





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Athabasca Valley Station number: AMS 07  
Calibration Date: May 11, 2026 Last Cal Date: April 9, 2026  
Start time (MST): 11:16 End time (MST): 11:35  
Analyzer Make: API T640 S/N: 2235  
Particulate Fraction: PM2.5  
Flow Meter Make/Model: Alicat FP-25BT S/N: 388746  
Temp/RH standard: Alicat FP-25BT S/N: 388746

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	19.30	18.47	19.30	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	733.60	733.13	733.60	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.00	4.96	5.00	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	29	----	29	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	2.60	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: **10.9** Expiry Date: July 16, 2026  
Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: \_\_\_\_\_ April 9, 2026  
Date Disposable Filter Changed: \_\_\_\_\_ April 9, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: \_\_\_\_\_ October 9, 2025  
Date RH/T Sensor Cleaned: \_\_\_\_\_ October 9, 2025

Notes: Temperature, pressure and flow checked. Leak check passed.

Calibration by: Sean Bala



# Wood Buffalo Environmental Association

## CO Calibration Report

### Station Information

Station Name:	Athabasca Valley	Station number:	AMS 07
Calibration Date:	May 12, 2026	Last Cal Date:	April 10, 2026
Start time (MST):	9:54	End time (MST):	11:15
Reason:	Removal		

### Calibration Standards

Cal Gas Concentration:	2,953	ppm	Cal Gas Exp Date: September 30, 2029
Cal Gas Cylinder #:	T1TWKRN		
Removed Cal Gas Conc:	2,953	ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA		Diff between cyl:
Calibrator Make/Model:	Teledyne API T700		Serial Number: 3805
ZAG Make/Model:	Teledyne API 701H		Serial Number: 198

### Analyzer Information

Analyzer make:	Thermo 48i-TLE	Analyzer serial #:	1408761381
Analyzer Range:	0 - 50 ppm		

	<u>Start</u>	<u>Finish</u>	
Calibration slope:	1.003373		Backgd or Offset: 5.968
Calibration intercept:	0.354086		Coeff or Slope: 1.079

### CO As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.3	----
As found High point	4932	67.8	40.0	40.6	0.993
As found Mid point	4966	33.9	20.0	20.8	0.976
As found Low point	4983	16.9	10.0	10.7	0.963
New cylinder response					
Baseline Corr As found:	40.32	Prev response:	40.53	*% change:	-0.5%
Baseline Corr 2nd AF pt:	20.5	AF Slope:	1.005142	AF Intercept:	0.478118
Baseline Corr 3rd AF pt:	10.4	AF Correlation:	0.999876	<i>* = &gt; +/-5% change initiates investigation</i>	

### CO Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

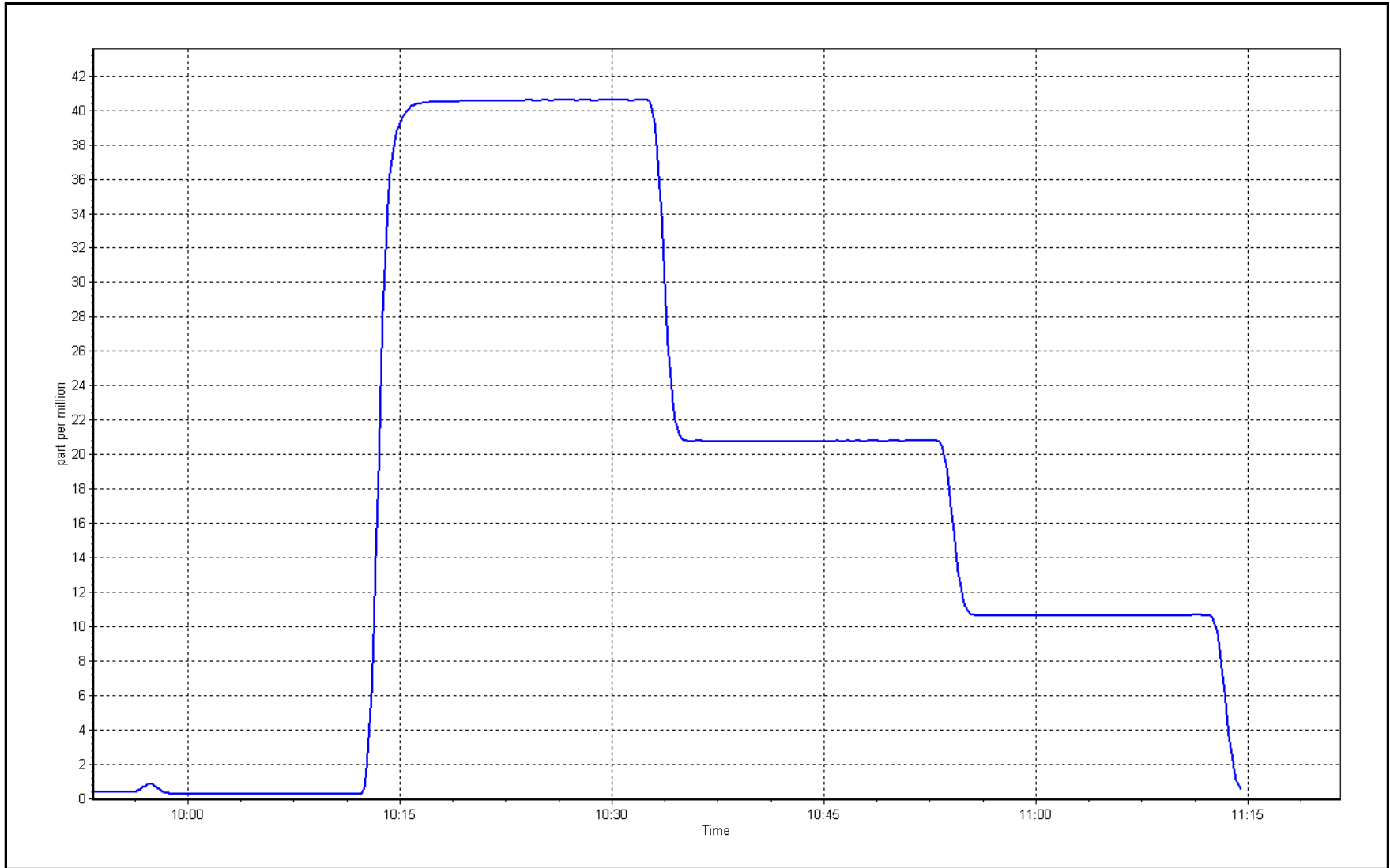
Notes: Removal Calibration.

Calibration Performed By: Sean Bala

CO Calibration Plot

Date: May 12, 2026

Location: Athabasca Valley





# Wood Buffalo Environmental Association

## CO Calibration Report

### Station Information

Station Name:	Athabasca Valley	Station number:	AMS 07
Calibration Date:	May 12, 2026	Last Cal Date:	NA
Start time (MST):	11:35	End time (MST):	13:52
Reason:	Install		

### Calibration Standards

Cal Gas Concentration:	2,953	ppm	Cal Gas Exp Date: September 30, 2029
Cal Gas Cylinder #:	T1TWKRN		
Removed Cal Gas Conc:	2,953	ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA		Diff between cyl:
Calibrator Make/Model:	Teledyne API T700		Serial Number: 3805
ZAG Make/Model:	Teledyne API 701H		Serial Number: 198

### Analyzer Information

Analyzer make:	Thermo 48iQ	Analyzer serial #:	12522542354
Analyzer Range:	0 - 50 ppm		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	NA	0.992274	Backgd or Offset:	NA	-2.760
Calibration intercept:	NA	0.305957	Coeff or Slope:	NA	1.000

### CO As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
-----------	-------------------------------	-----------------------------	-------------------------------------	------------------------------------	--

As found zero  
 As found High point  
 As found Mid point  
 As found Low point  
 New cylinder response

Baseline Corr As found:	NA	Prev response:	NA	*% change:	NA
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### CO Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4932	67.8	40.0	40.0	1.001
Mid point	4966	33.9	20.0	20.2	0.991
Low point	4983	16.9	10.0	10.3	0.965
As left zero	5000	0.0	0.0	-0.2	----
As left span	4932	67.8	40.0	39.4	1.017
Average Correction Factor					0.986

Notes: Install Calibration.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

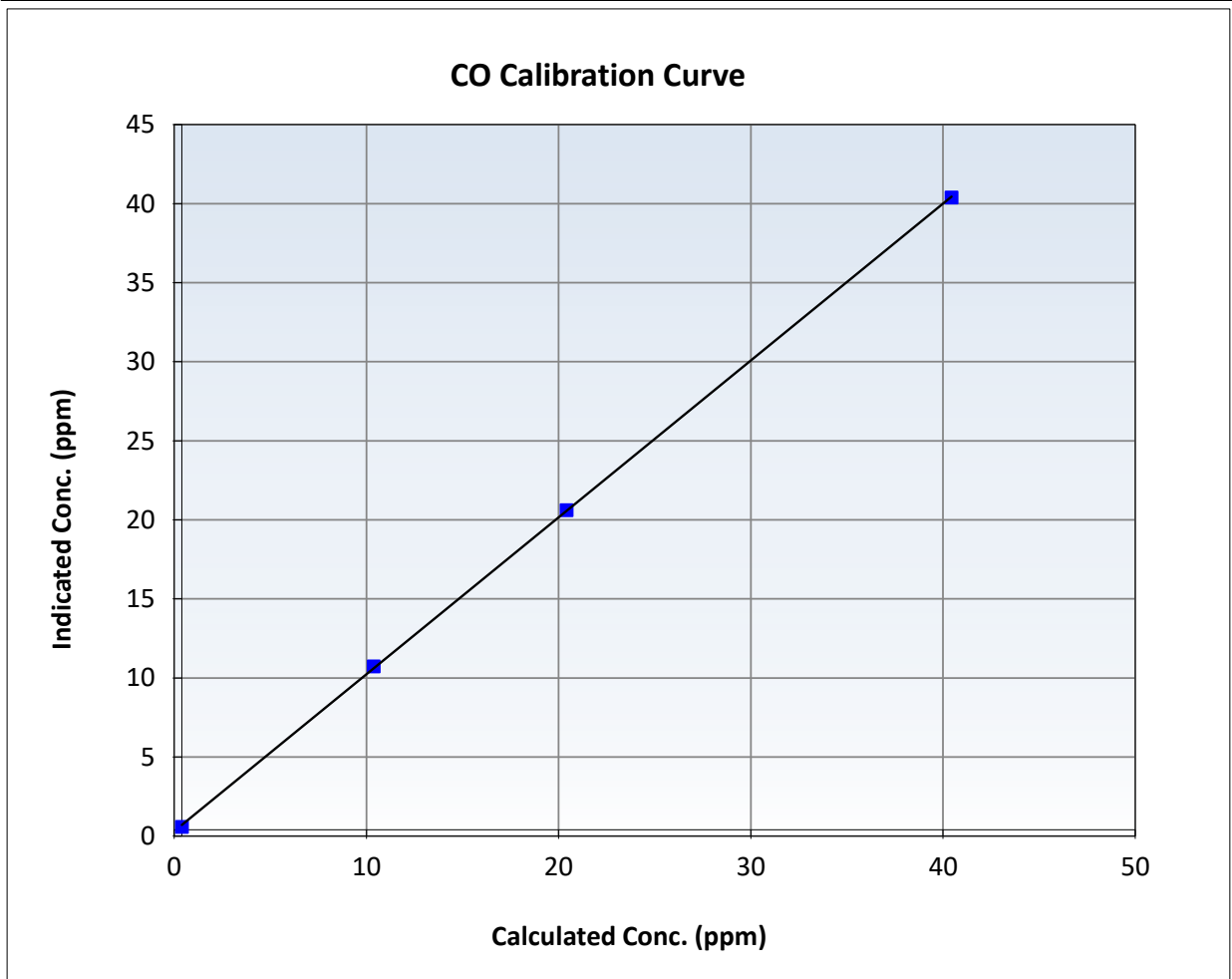
## CO Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	NA
Station Name:	Athabasca Valley	Station Number:	AMS 07
Start Time (MST):	11:35	End Time (MST):	13:52
Analyzer make:	Thermo 48iQ	Analyzer serial #:	12522542354

### Calibration Data

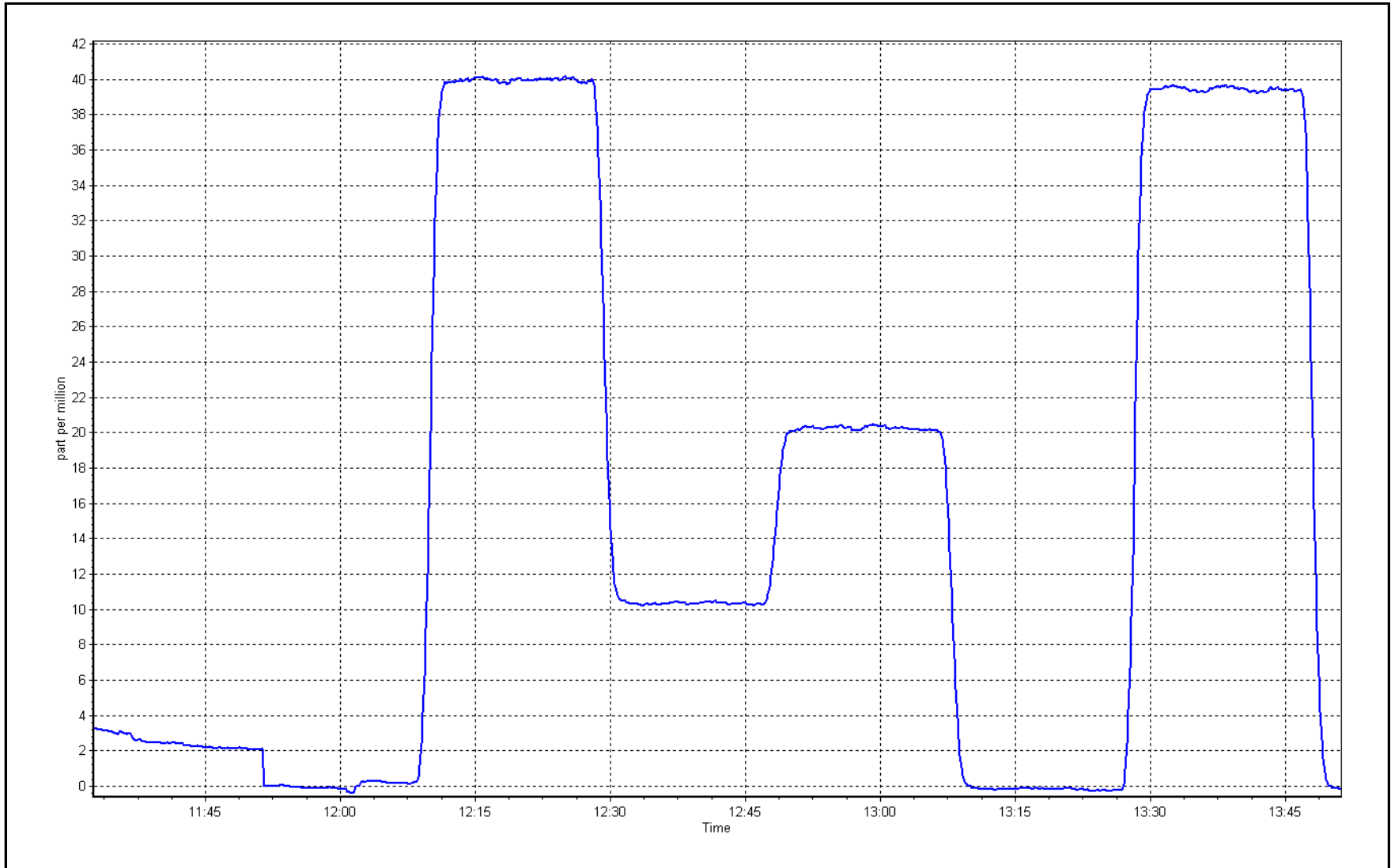
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999960	<span style="color: red;">≥0.995</span>
40.0	40.0	1.0014	Slope	0.992274	<span style="color: red;">0.90 - 1.10</span>
20.0	20.2	0.9907	Intercept	0.305957	<span style="color: red;">+/-1.5</span>
10.0	10.3	0.9653			



CO Calibration Plot

Date: May 12, 2026

Location: Athabasca Valley





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS08 FORT CHIPEWYAN MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Fort Chipewyan	Station number:	AMS 08
Calibration Date:	May 20, 2026	Last Cal Date:	April 8, 2026
Start time (MST):	10:12	End time (MST):	12:43
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	49.84	ppm	Cal Gas Exp Date:	January 6, 2030
Cal Gas Cylinder #:	CC196697			
Removed Cal Gas Conc:	49.84	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	3810
Zero Air Gen Model:	Teledyne API T701		Serial Number:	135

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Serial Number:	1170050147
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999333	1.000662	Backgd or Offset:	3.65	3.55
Calibration intercept:	0.675446	0.734954	Coeff or Slope:	1.052	1.017

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.6	----
As found High point	4920	80.3	800.4	824.9	0.970
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	825.5	Previous response	800.5	*% change	3.0%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4920	80.3	800.4	800.9	0.999
Mid point	4960	40.2	400.7	403.2	0.994
Low point	4980	20.1	200.4	201.2	0.996
As left zero	5000	0.0	0.0	-0.1	----
As left span	4920	80.3	800.4	798.6	1.002
Average Correction Factor:					0.996

Notes: Changed inlet filter after as founds. Adjustments made to zero and span high point.

Calibration Performed By: Jermey cardinal



# Wood Buffalo Environmental Association

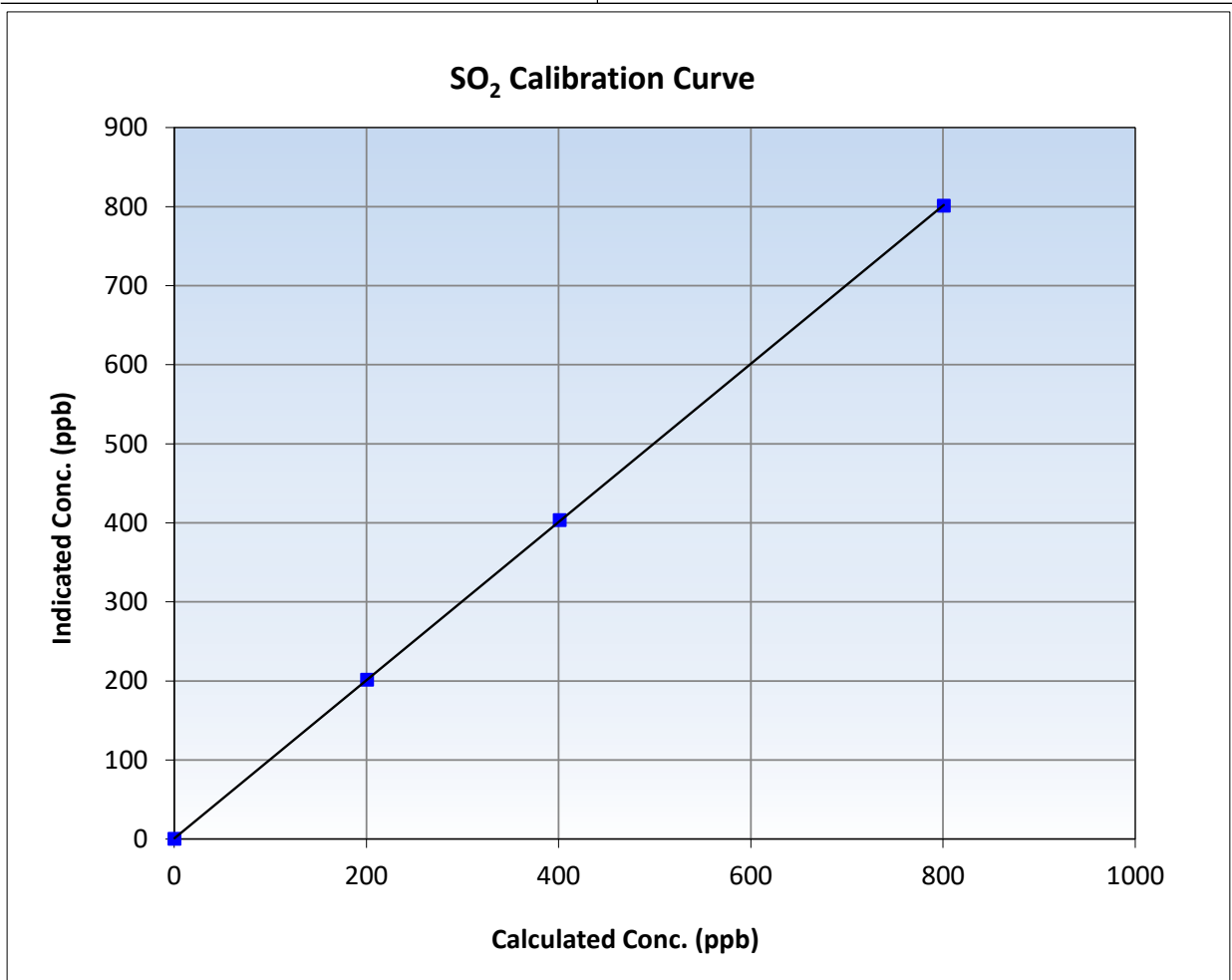
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 20, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	10:12	End Time (MST):	12:43
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1170050147

### Calibration Data

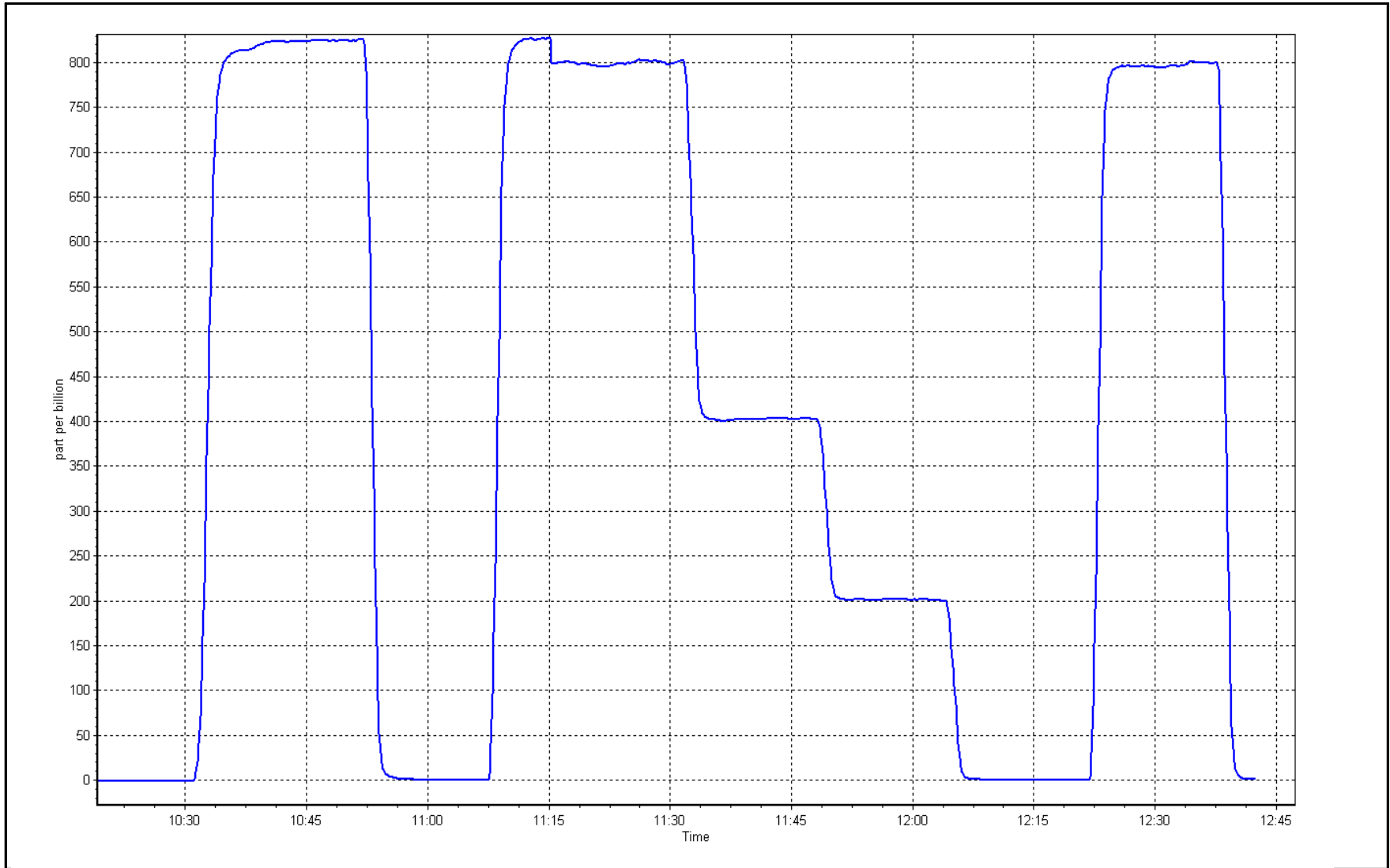
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.0	----	Correlation Coefficient	0.999990	<b>≥0.995</b>
800.4	800.9	0.9994	Slope	1.000662	<b>0.90 - 1.10</b>
400.7	403.2	0.9938	Intercept	0.734954	<b>+/-30</b>
200.4	201.2	0.9958			



SO2 Calibration Plot

Date: May 20, 2026

Location: Fort Chipewyan





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name: Fort Chipewyan	Station number: AMS 08
Calibration Date: May 22, 2026	Last Cal Date: April 9, 2026
Start time (MST): 8:04	End time (MST): 11:15
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 4.84 ppm	Cal Gas Exp Date: August 28, 2027
Cal Gas Cylinder #: SA7549	
Removed Cal Gas Conc: 4.84 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #: NA	Diff between cyl:
Calibrator Make/Model: Teledyne API T700	Serial Number: 3810
ZAG Make/Model: Teledyne API T701	Serial Number: 135

### Analyzer Information

Analyzer make: Thermo 43i-TLE	Analyzer serial #: 1218153461
Converter make: CDN-101	Converter serial #: 630
Analyzer Range: 0 - 100 ppb	Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.018251	1.003526	Backgd or Offset:	3.1	3.1
Calibration intercept:	-0.458200	-0.317904	Coeff or Slope:	1.181	1.181

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4917	82.6	80.0	81.2	0.982
As found Mid point	4959	41.3	40.0	40.6	0.980
As found Low point	4979	20.7	20.0	20.0	0.992
New cylinder response					
Baseline Corr As found:	81.4	Prev response:	80.96	*% change:	0.5%
Baseline Corr 2nd AF pt:	40.8	AF Slope:	1.018970	AF Intercept:	-0.258341
Baseline Corr 3rd AF pt:	20.2	AF Correlation:	0.999988	<i>* = +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4917	82.6	80.0	80.0	1.000
Mid point	4959	41.3	40.0	39.9	1.002
Low point	4979	20.7	20.0	19.3	1.038
As left zero	5000	0.0	0.0	0.4	----
As left span	4917	82.6	80.0	82.1	0.974
SO2 Scrubber Check	4920	80.3	803.0	-0.1	----
Date of last scrubber change:	May 15, 2025			Ave Corr Factor	1.013
Date of last converter efficiency test:					

Notes: changed inlet filter after as found. No adjustment made .

Calibration Performed By: Jerney cardinal



# Wood Buffalo Environmental Association

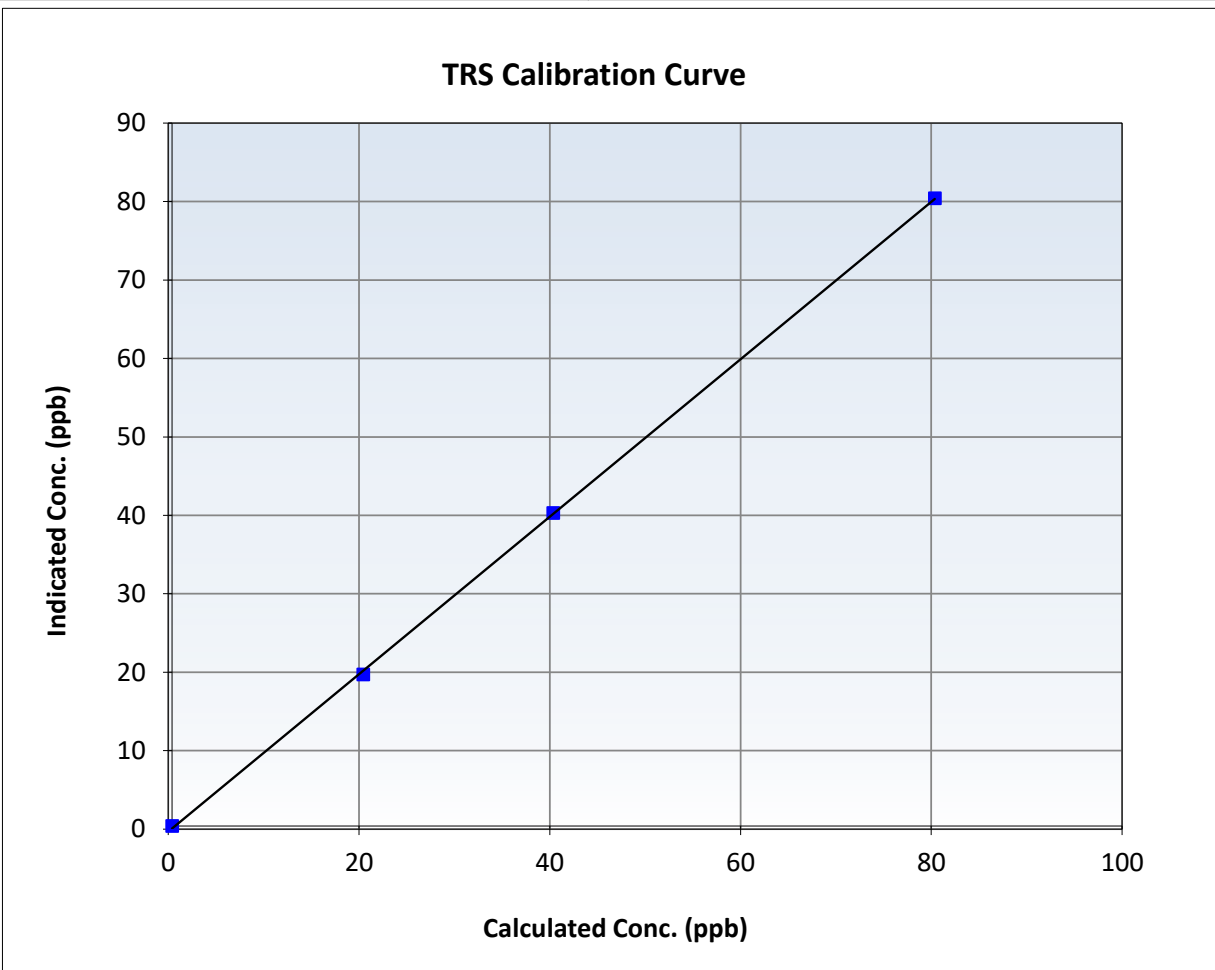
## TRS Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 9, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:04	End Time (MST):	11:15
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153461

### Calibration Data

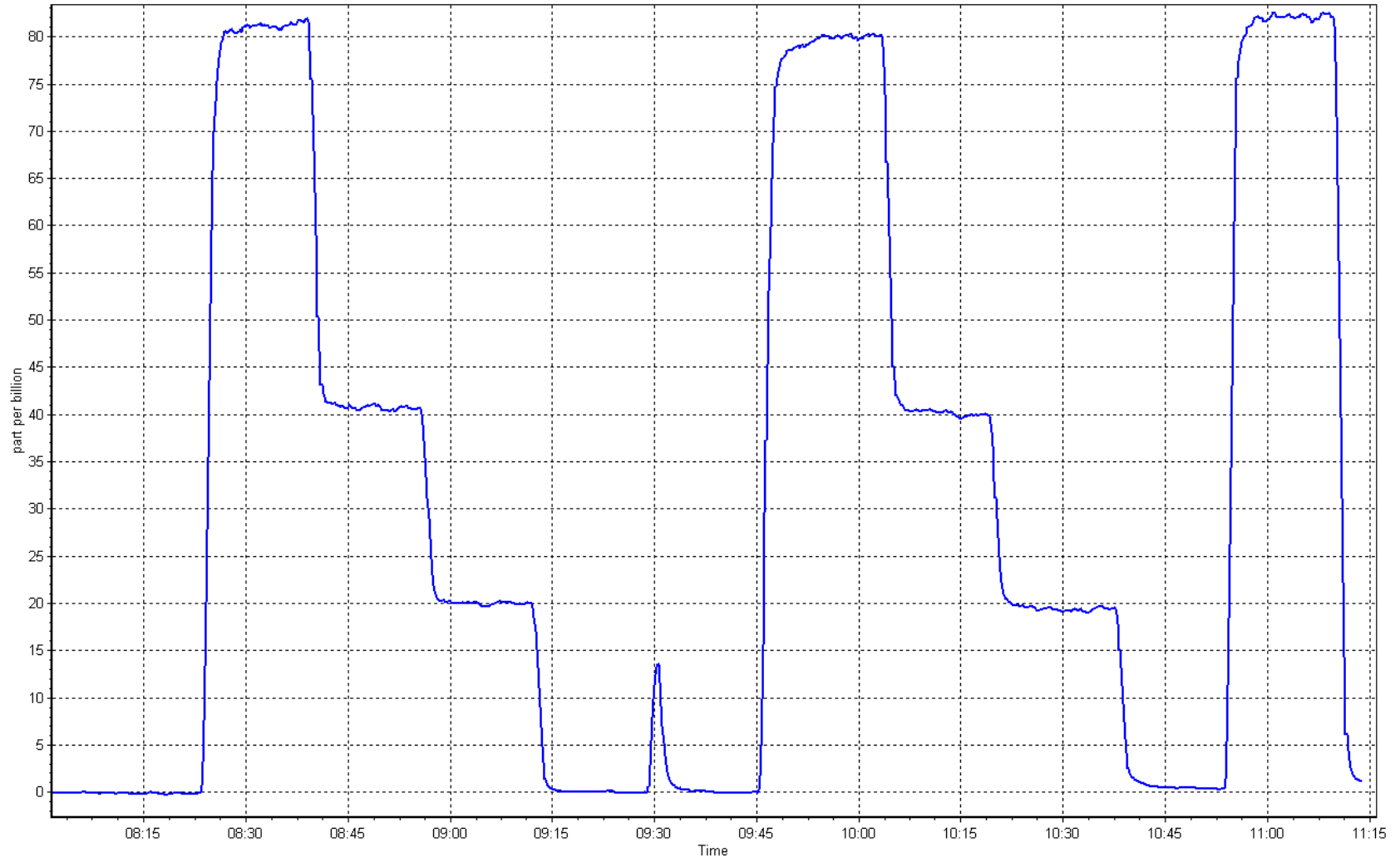
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999898	$\geq 0.995$
80.0	80.0	0.9995	Slope	1.003526	$0.90 - 1.10$
40.0	39.9	1.0019	Intercept	-0.317904	$\pm 3$
20.0	19.3	1.0383			



TRS Calibration Plot

Date: May 22, 2026

Location: Fort Chipewyan





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Fort Chipewyan  
 Station number: AMS 08  
 Calibration Date: May 21, 2026  
 Last Cal Date: April 8, 2026  
 Start time (MST): 8:26  
 End time (MST): 12:07  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC358100  
 NOX Cal Gas Conc: 60.10 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 60.10 ppm  
 NOX ga 4.8  
 Calibra 5.2  
 ZAG make/model: Teledyne API T701H

Cal Gas Expiry Date: January 5, 2032  
 NO Cal Gas Conc: 60.00 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 60.00 ppm  
 NO gas Diff:  
 Serial Number: 3810  
 Serial Number: 197

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	0.2	-0.1	----	----
AF High point	4933	66.7	801.8	800.4	1.3	811.9	807.1	3.8	0.9877	0.9920
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO <sub>x</sub> = 799.9 ppb	NO = 798.9 ppb	<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = 1.5%
Baseline Corr 1st pt	NO <sub>x</sub> = 811.8 ppb	NO = 806.9 ppb	<u>As Found Statistics</u>		*Percent Change	NO = 1.0%
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :	NO SI:	NO Int:
			As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1426262592

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.996609	1.009653
NO <sub>x</sub> Cal Offset:	0.874791	1.175381
NO Cal Slope:	0.998141	1.010393
NO Cal Offset:	-0.105106	0.155291
NO <sub>2</sub> Cal Slope:	0.999667	1.000094
NO <sub>2</sub> Cal Offset:	-1.590408	0.382358

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.037	1.037	NO bkgnd or offset:	6.0	6.0
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	6.1	6.1
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	173.7	173.7

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.2	0.3	-0.1	----	----
High point	4933	66.7	801.8	800.4	1.3	809.9	808.7	1.1	0.9900	0.9898
Mid point	4967	33.3	400.2	399.6	0.7	406.7	404.7	2.0	0.9841	0.9873
Low point	4983	16.7	200.7	200.4	0.3	204.2	201.9	2.3	0.9830	0.9926
As left zero	5000	0.0	0.0	0.0	0.0	1.8	0.4	1.4	----	----
As left span	4933	66.7	801.8	401.9	399.9	815.0	401.9	414.0	0.9838	1.0000
Average Correction Factor									0.9857	0.9899

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	807.5	396.5	412.3	412.7	0.9991	100.1%
Mid GPT point	807.5	601.2	207.6	207.7	0.9997	100.0%
Low GPT point	807.5	702.9	105.9	107.2	0.9882	101.2%
Average Correction Factor					0.9957	100.4%

Notes: Changed inlet filter after as founds. no Made adjustment

Calibration Performed By: Jermey cardinal



# Wood Buffalo Environmental Association

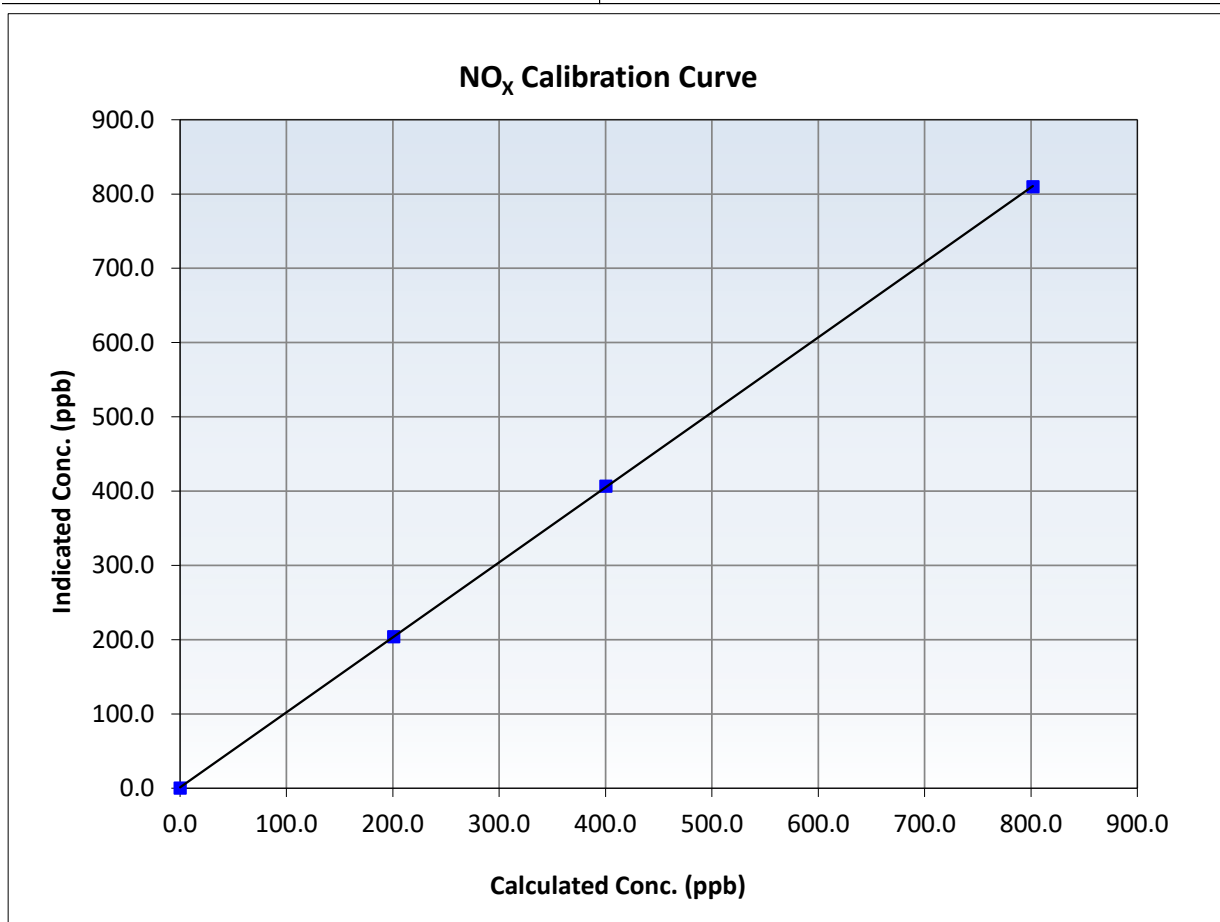
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:26	End Time (MST):	12:07
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262592

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999990	≥0.995
801.8	809.9	0.9900	Slope	1.009653	0.90 - 1.10
400.2	406.7	0.9841	Intercept	1.175381	+/-20
200.7	204.2	0.9830			





# Wood Buffalo Environmental Association

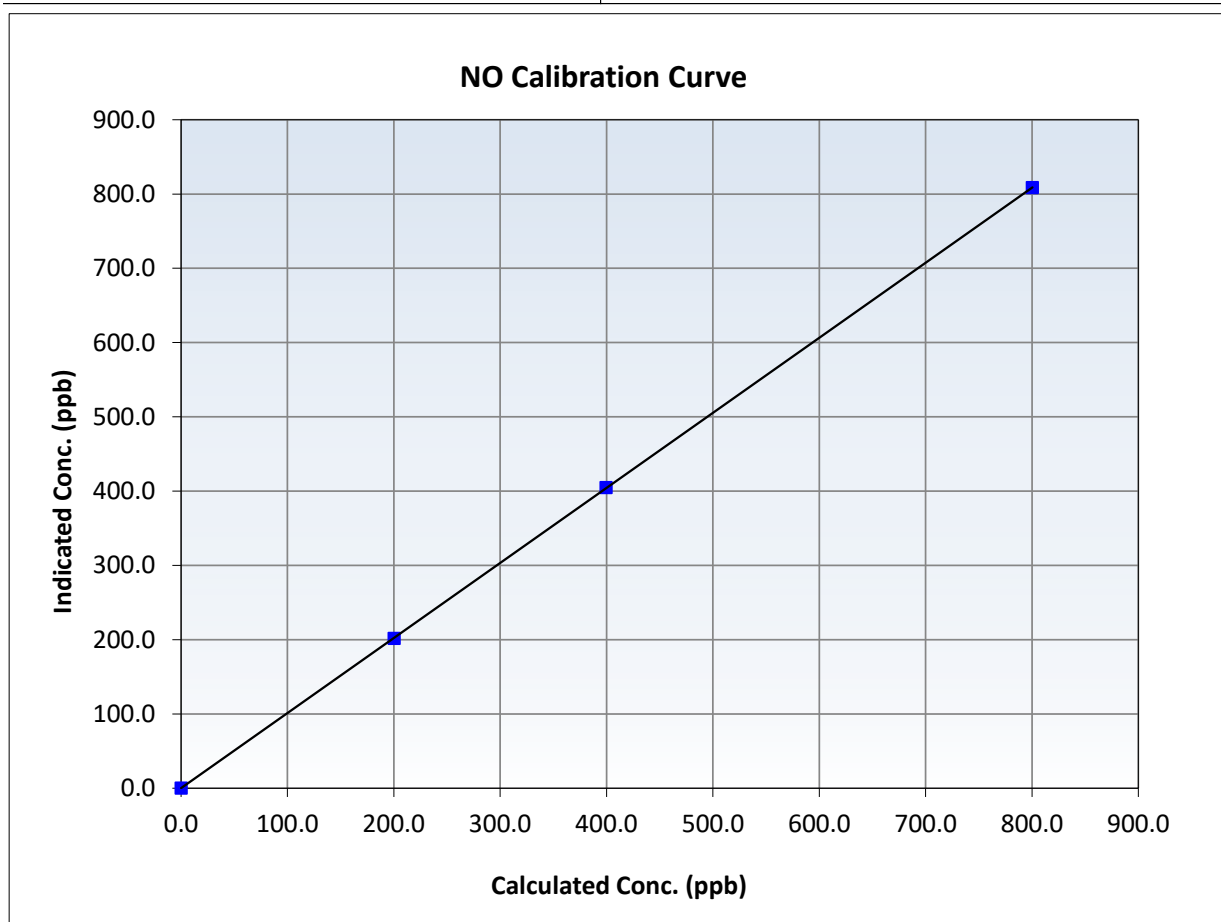
## NO Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:26	End Time (MST):	12:07
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262592

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.3	----	Correlation Coefficient	0.999996	<span style="color: red;">≥0.995</span>
800.4	808.7	0.9898	Slope	1.010393	<span style="color: red;">0.90 - 1.10</span>
399.6	404.7	0.9873	Intercept	0.155291	<span style="color: red;">+/-20</span>
200.4	201.9	0.9926			





# Wood Buffalo Environmental Association

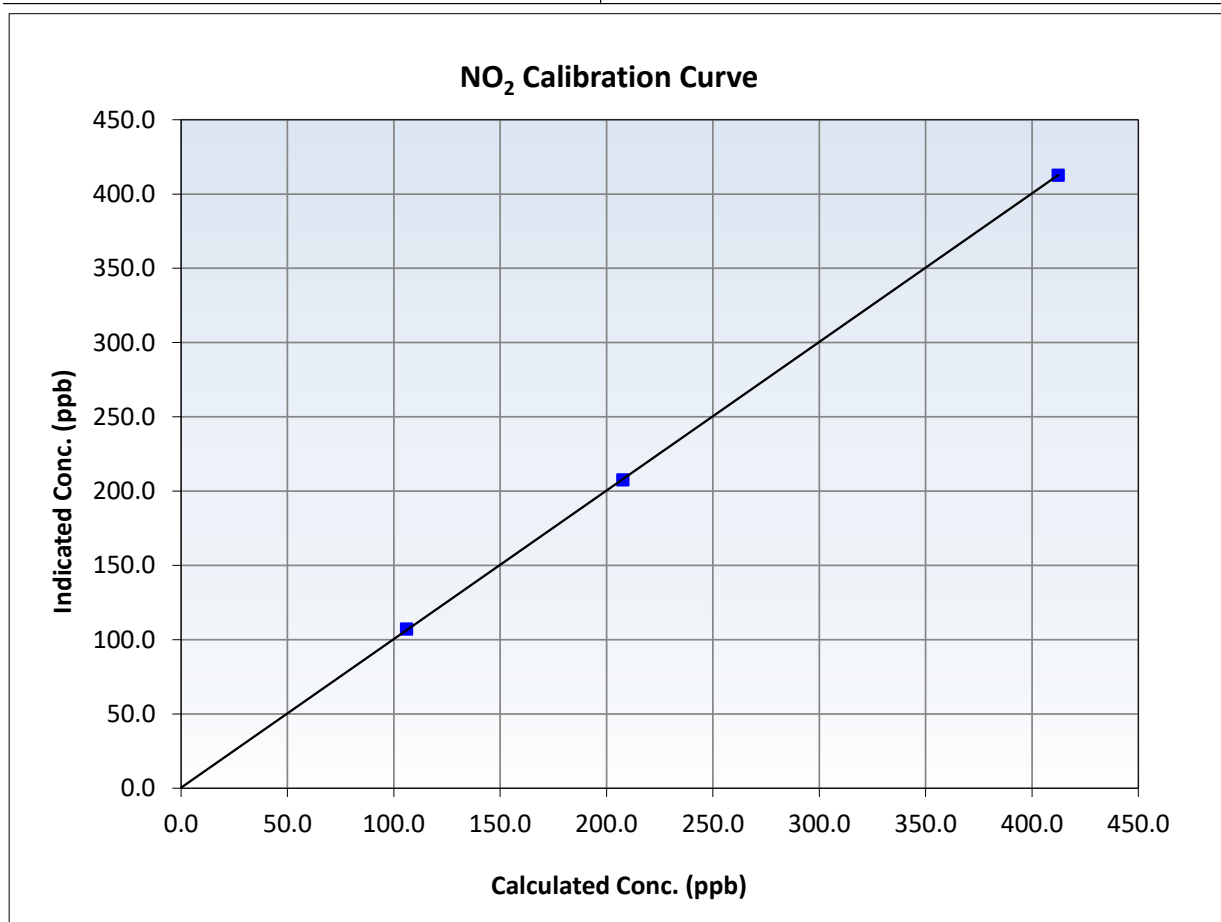
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:26	End Time (MST):	12:07
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262592

### Calibration Data

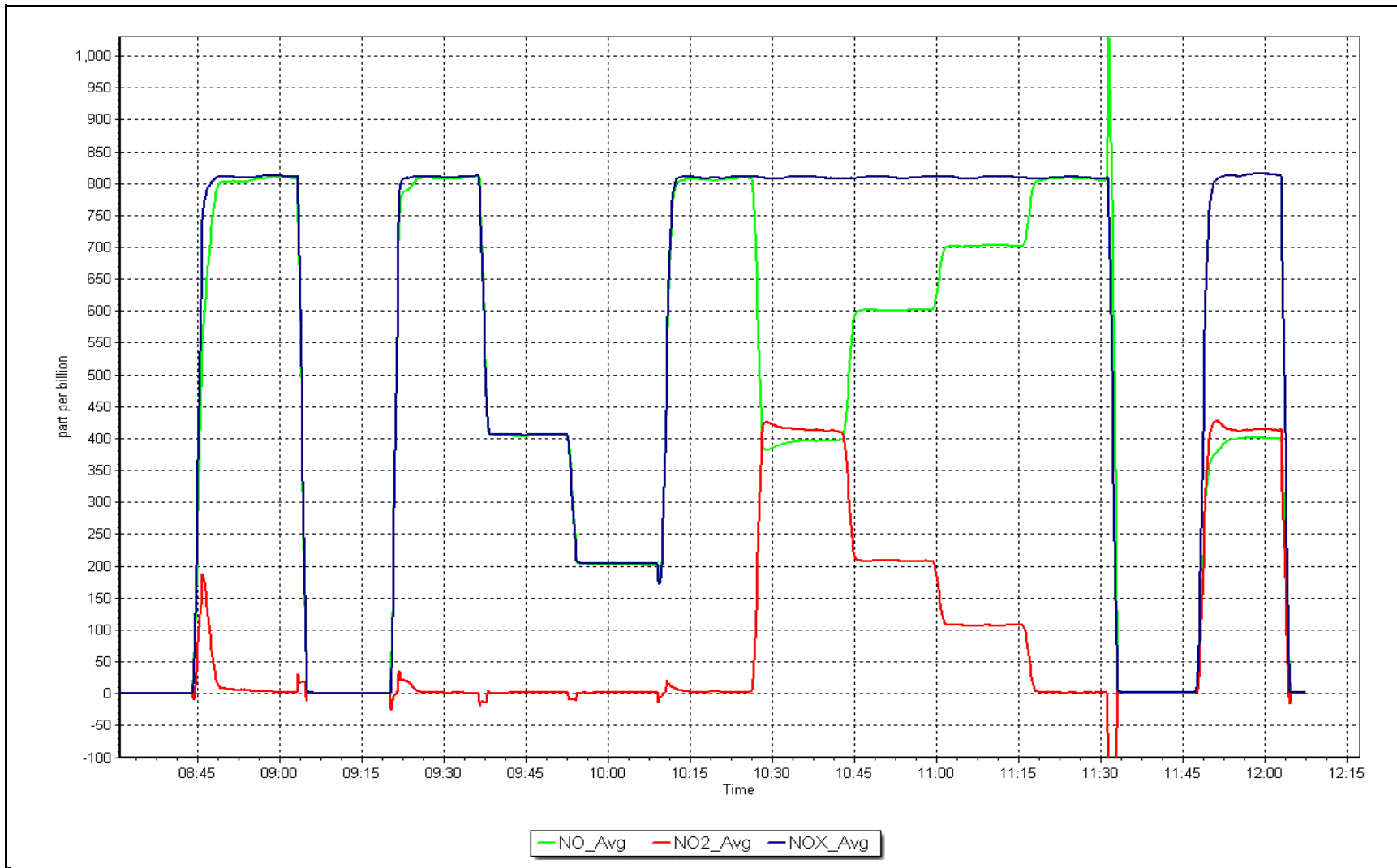
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999988	≥0.995
412.3	412.7	0.9991	Slope	1.000094	0.90 - 1.10
207.6	207.7	0.9997	Intercept	0.382358	+/-20
105.9	107.2	0.9882			



NO<sub>x</sub> Calibration Plot

Date: May 21, 2026

Location: Fort Chipewyan





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Fort Chipewyan	Station number:	AMS 08
Calibration Date:	May 14, 2026	Last Cal Date:	April 7, 2026
Start time (MST):	8:45	End time (MST):	11:31
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	3810
Calibrator Make/Model:	Teledyne API T700	Serial Number:	135
ZAG Make/Model:	Teledyne API T701		

### Analyzer Information

Analyzer make:	Thermo 49i	Analyzer serial #:	1152220026
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.996429	1.001686	Backgd or Offset:	-2.6	-2.6
Calibration intercept:	1.400000	1.380000	Coeff or Slope:	1.002	1.002

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	5000	968.7	400.0	401.7	0.995
As found Mid point					
As found Low point					
Baseline Corr As found:	401.9	Previous response	400.0	*% change	0.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.5	----
High point	5000	968.7	400.0	401.5	0.996
Mid point	5000	820.5	200.0	202.5	0.988
Low point	5000	720.0	100.0	102.2	0.978
As left zero	5000	0.0	0.0	-0.2	----
As left span	5000	968.7	400.0	402.9	0.993
Average Correction Factor					<b>0.987</b>

Notes: Changed inlet filters after as founds.

Calibration Performed By: jermey cardinal



# Wood Buffalo Environmental Association

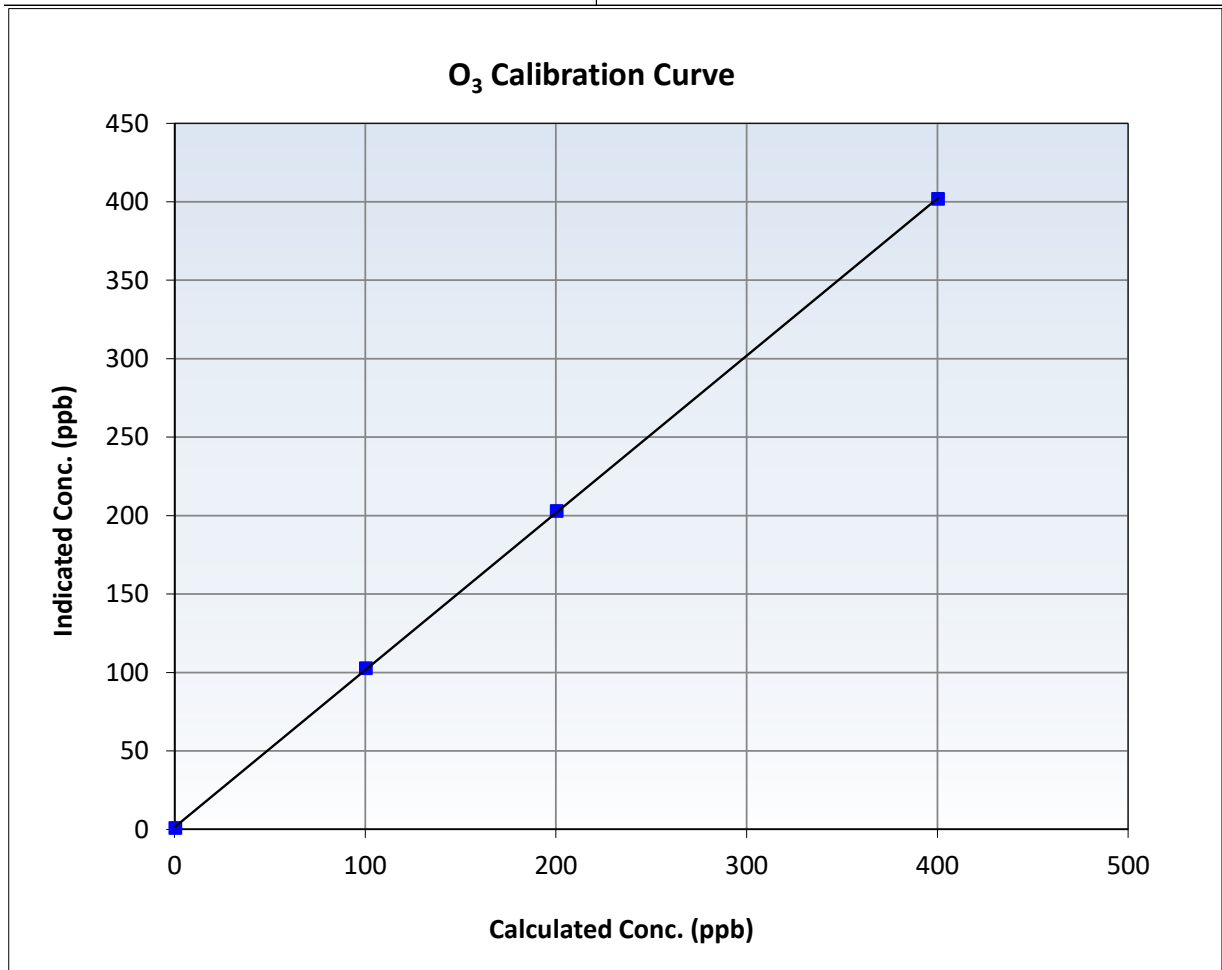
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 7, 2026
Station Name:	Fort Chipewyan	Station Number:	AMS 08
Start Time (MST):	8:45	End Time (MST):	11:31
Analyzer make:	Thermo 49i	Analyzer serial #:	1152220026

### Calibration Data

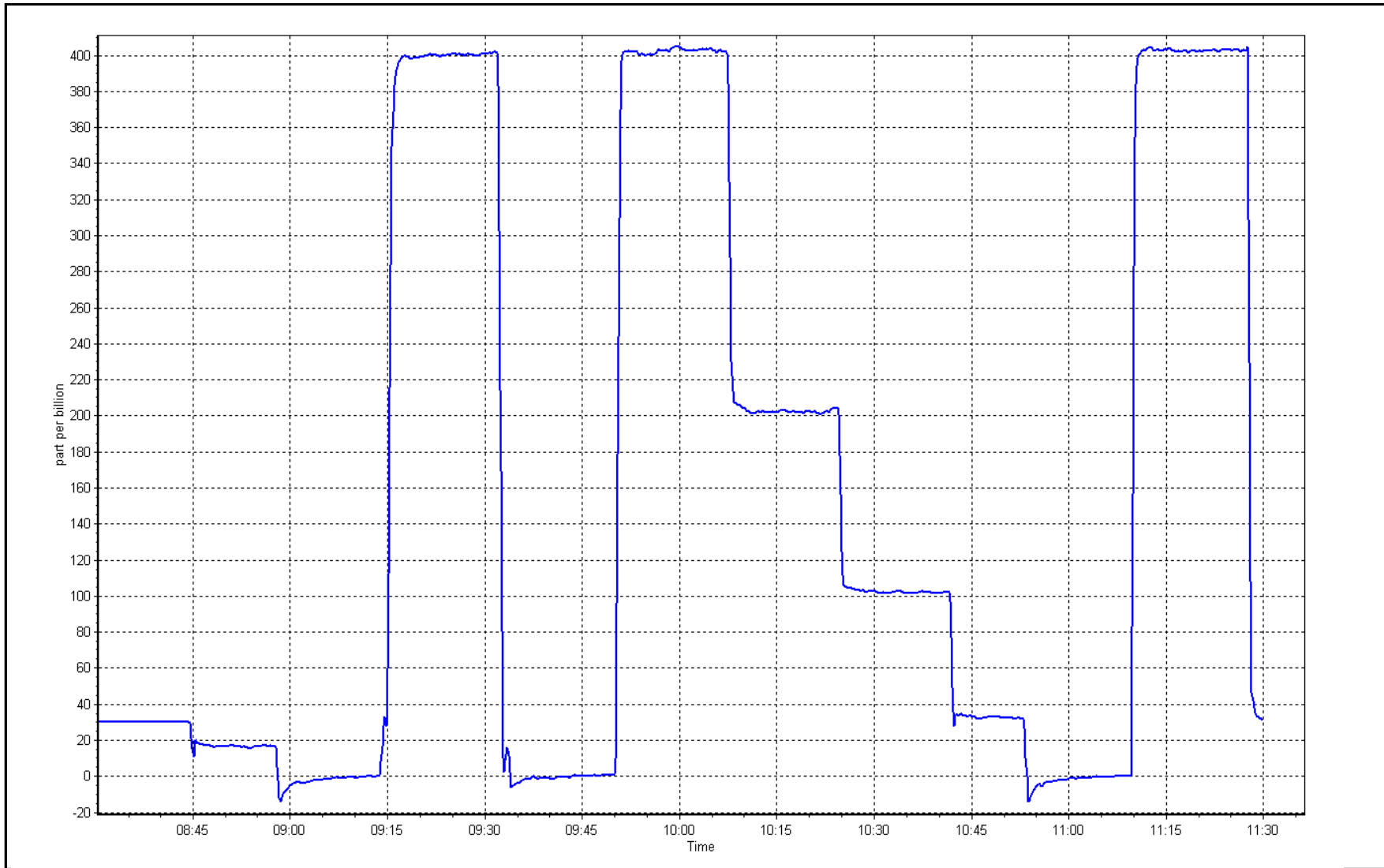
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.5	----	Correlation Coefficient	0.999976	<span style="color: red;">≥0.995</span>
400.0	401.5	0.9963	Slope	1.001686	<span style="color: red;">0.90 - 1.10</span>
200.0	202.5	0.9877	Intercept	1.380000	<span style="color: red;">+/- 5</span>
100.0	102.2	0.9785			



O<sub>3</sub> Calibration Plot

Date: May 14, 2026

Location: Fort Chipewyan





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Fort Chipewyan Station number: AMS 08  
 Calibration Date: May 27, 2026 Last Cal Date: April 10, 2026  
 Start time (MST): 8:27 End time (MST): 9:14

Analyzer Make: Teledyne API T640 S/N: 319  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388749  
 Temp/RH standard: Alicat FP-25BT S/N: 388749

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	13.7	12.74	13.7	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	734.1	736.31	734.1	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.06	5.03	5.06	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	36%	NA	36%	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	6.10	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: 30-Jan-27  
 Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	10.9	10.8	10.8	<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: March 23, 2026  
 Date Disposable Filter Changed: March 23, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.00 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: December 3, 2025  
 Date RH/T Sensor Cleaned: December 3, 2025

Notes: flag on 8:27 flag off 9:14 no adjustment made

Calibration by: JermeY cardinal morgan voyageur



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS09 BARGE LANDING MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Barge Landing	Station number: AMS 09
Calibration Date:	May 11, 2026	Last Cal Date: April 7, 2026
Start time (MST):	9:53	End time (MST): 14:34
Reason:	Routine	

### Calibration Standards

Cal Gas Concentration:	50.56 ppm	Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #:	CC705748	
Removed Cal Gas Conc:	50.56 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA	Diff between cyl:
Calibrator Model:	API T700P	Serial Number: 2464
Zero Air Gen Model:	APIT701	Serial Number: 5613

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number: 1118148498
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999785	0.999399	Backgd or Offset:	12.7
Calibration intercept:	-1.338093	-0.177937	Coeff or Slope:	1.036
				12.3
				1.029

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4921	79.1	799.8	801.0	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	801.2	Previous response	798.3	*% change	0.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4921	79.1	799.8	799.1	1.001
Mid point	4961	39.5	399.4	399.5	1.000
Low point	4980	19.8	200.2	199.2	1.005
As left zero	5000	0.0	0.0	0.2	----
As left span	4921	79.1	799.8	801.0	0.999
Average Correction Factor:					1.002

Notes: Changed sample inlet filter after as founds. Adjusted zero and span.

Calibration Performed By: Braiden Boutilier



# Wood Buffalo Environmental Association

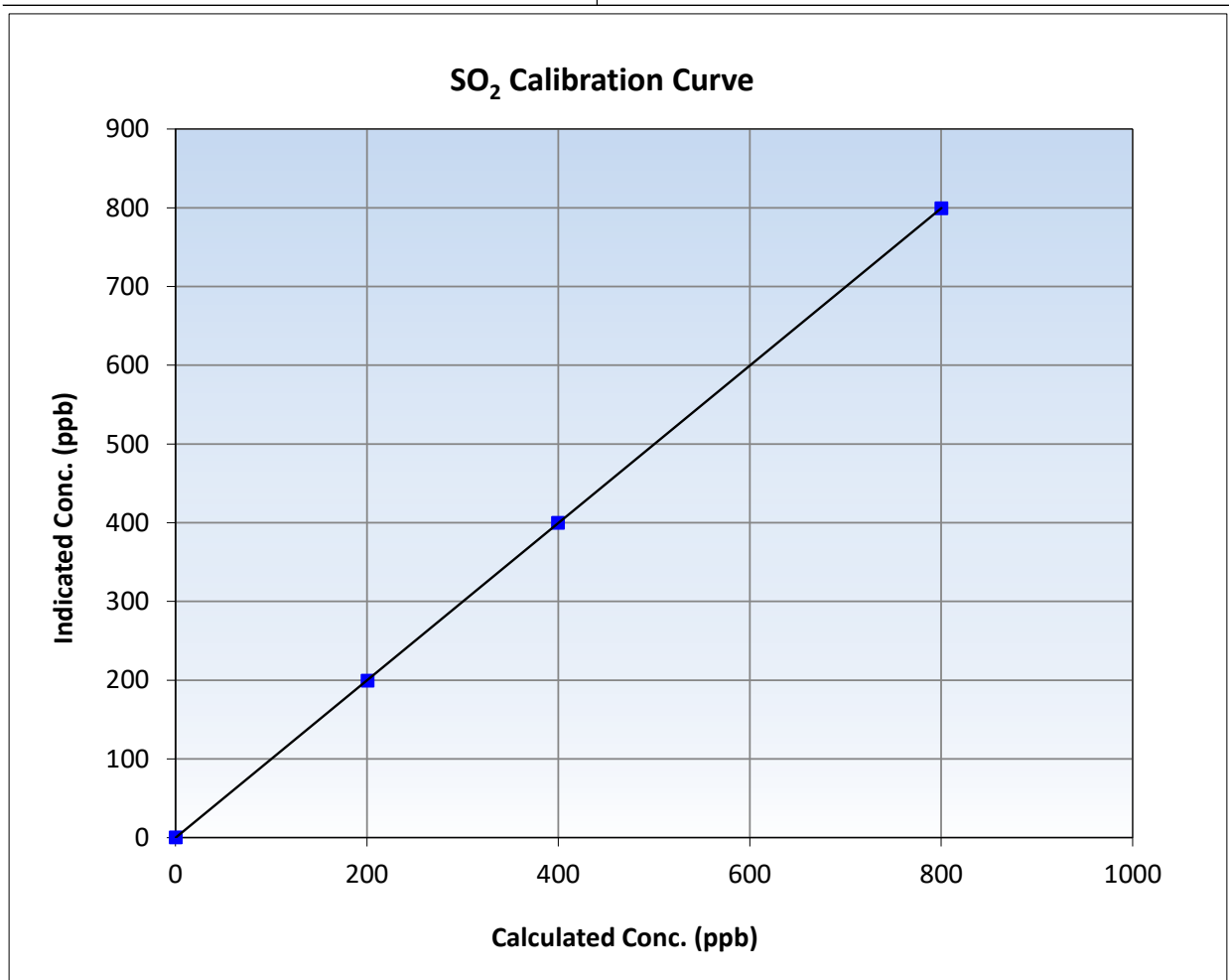
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 7, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:53	End Time (MST):	14:34
Analyzer make:	Thermo 43i	Analyzer serial #:	1118148498

### Calibration Data

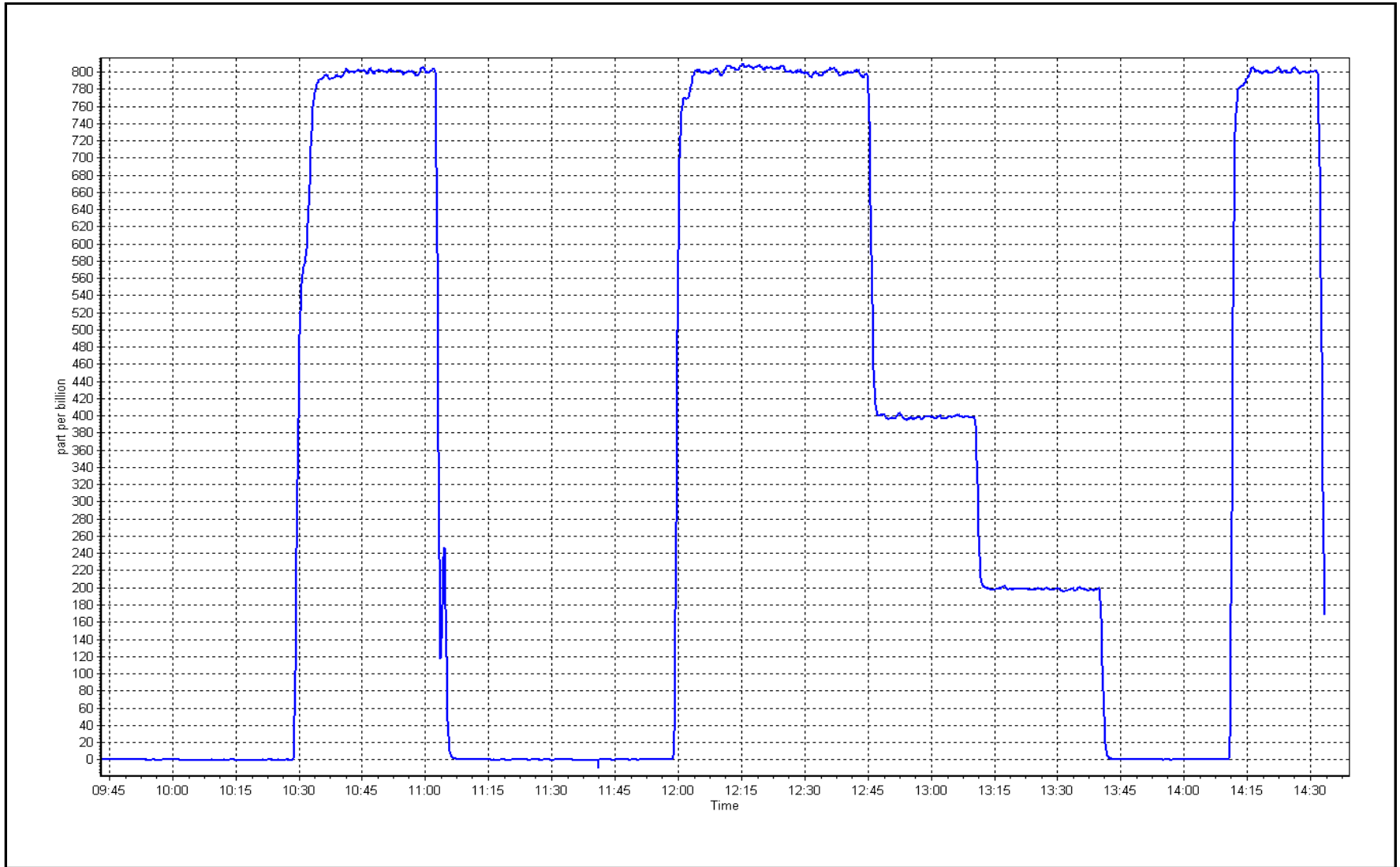
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.1	----	Correlation Coefficient	0.999997	<b>≥0.995</b>
799.8	799.1	1.0009	Slope	0.999399	<b>0.90 - 1.10</b>
399.4	399.5	0.9997	Intercept	-0.177937	<b>+/-30</b>
200.2	199.2	1.0051			



SO2 Calibration Plot

Date: May 11, 2026

Location: Barge Landing





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name: Barge Landing	Station number: AMS 09
Calibration Date: May 5, 2026	Last Cal Date: April 8, 2026
Start time (MST): 9:34	End time (MST): 15:02
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 5.17 ppm	Cal Gas Exp Date: August 22, 2026
Cal Gas Cylinder #: CC511415	
Removed Cal Gas Conc: 5.17 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #: NA	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 2464
ZAG Make/Model: API T701	Serial Number: 5613

### Analyzer Information

Analyzer make: Thermo 43iQ-TLE	Analyzer serial #: 1203169744
Converter make: CDN-101	Converter serial #: 519
Analyzer Range: 0 - 100 ppb	Converter Temp: 830 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.996980	1.000692	Backgd or Offset:	1.910	1.880
Calibration intercept:	-0.000655	0.019418	Coeff or Slope:	0.740	0.731

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4923	77.4	80.0	80.2	0.998
As found Mid point	4961	38.7	40.0	40.4	0.991
As found Low point	4981	19.3	20.0	20.1	0.993
New cylinder response					
Baseline Corr As found:	80.2	Prev response:	79.80	*% change:	0.5%
Baseline Corr 2nd AF pt:	40.4	AF Slope:	1.001977	AF Intercept:	0.099431
Baseline Corr 3rd AF pt:	20.1	AF Correlation:	0.999984	<i>* = &gt; +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4923	77.4	80.0	80.1	0.999
Mid point	4961	38.7	40.0	40.1	0.998
Low point	4981	19.3	20.0	20.0	0.998
As left zero	5000	0.0	0.0	0.1	----
As left span	4923	77.4	80.0	80.4	0.996
SO2 Scrubber Check	4920	80.2	802.0	0.0	----
Date of last scrubber change:	8-Jul-25			Ave Corr Factor	<b>0.998</b>
Date of last converter efficiency test:					

Notes: Changed the sample inlet filter after as founds. Adjusted span. SOx scrubber check done after calibrator zero, and it passed.

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

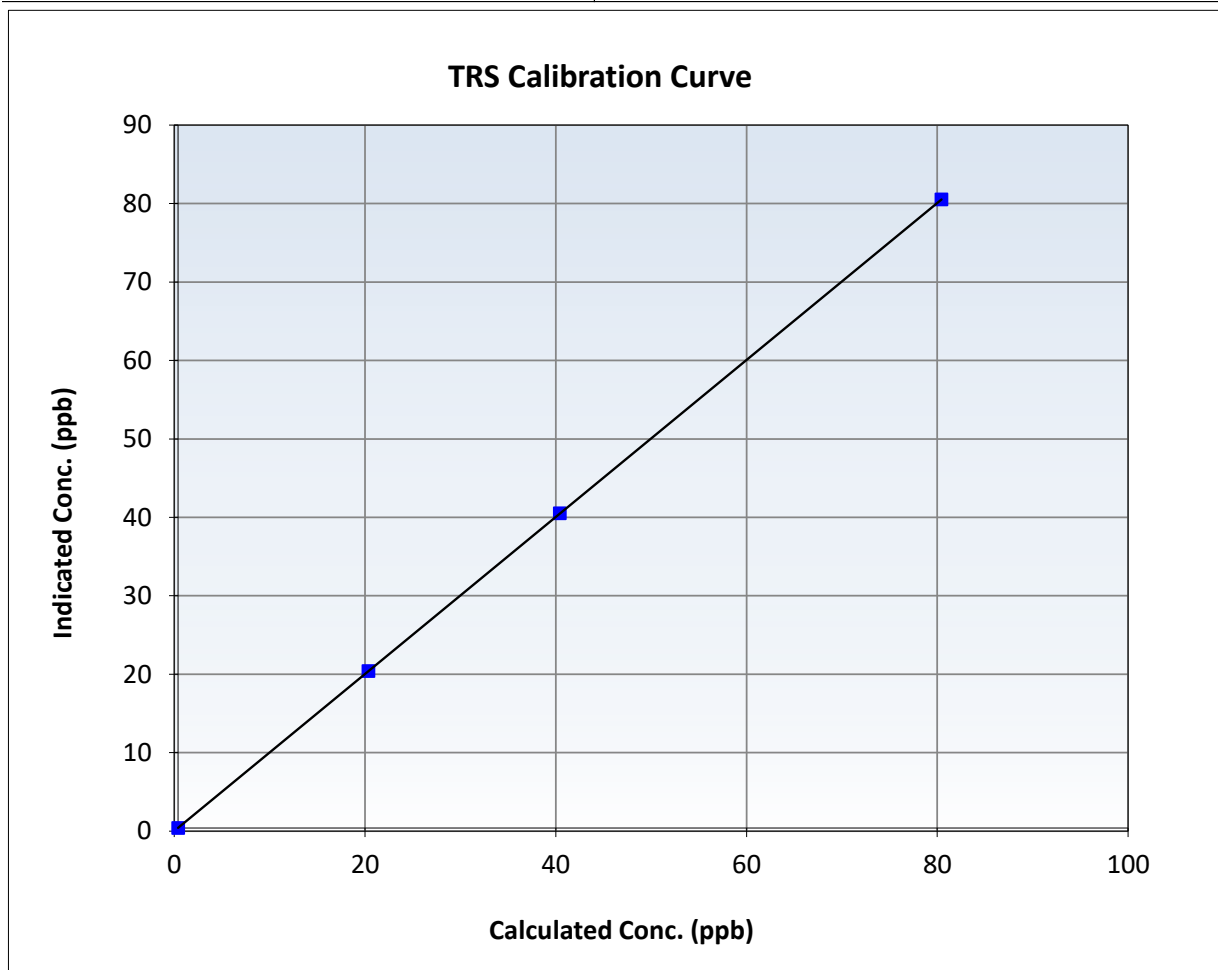
## TRS Calibration Summary

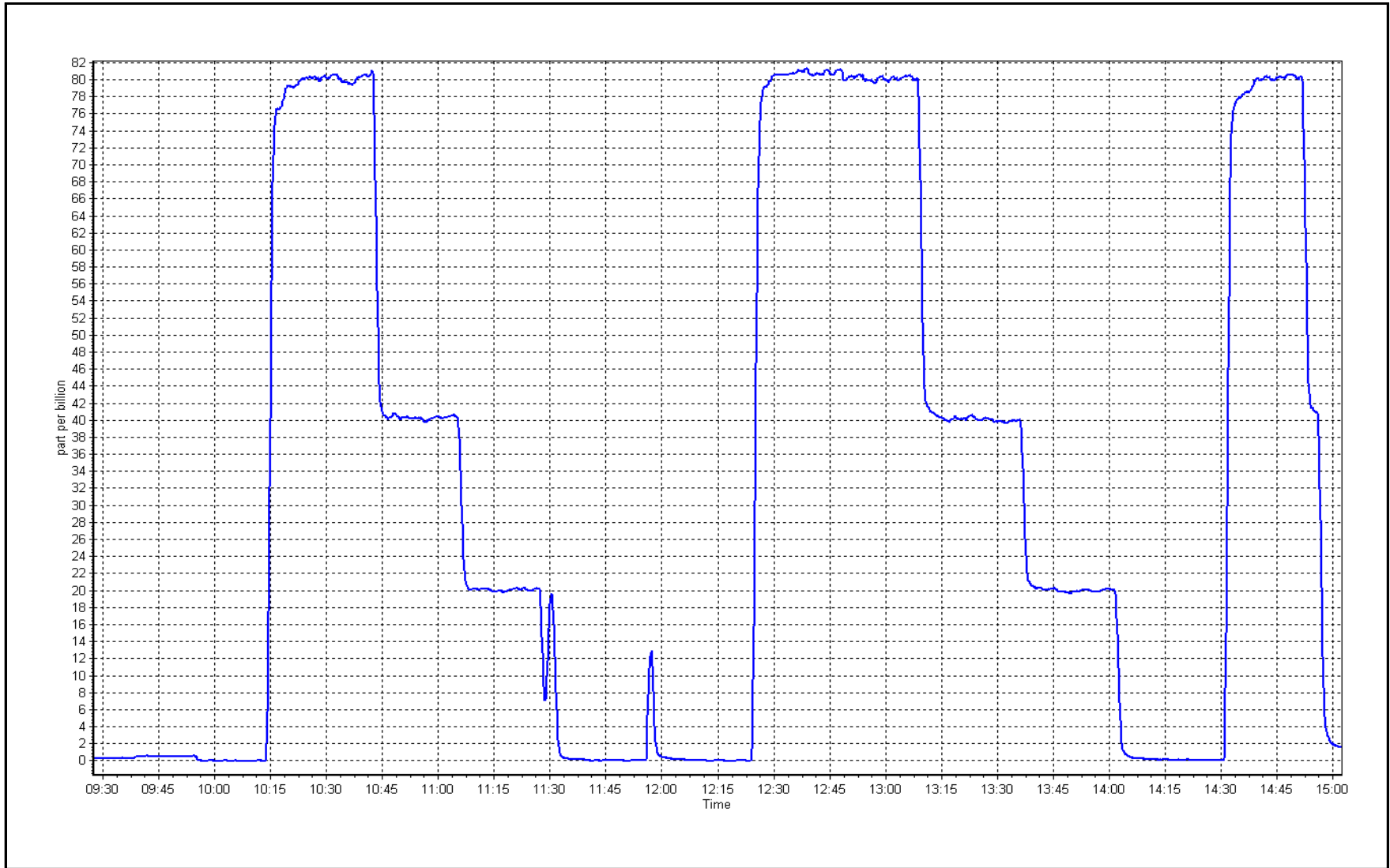
### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 8, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:34	End Time (MST):	15:02
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1203169744

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000	$\geq 0.995$
80.0	80.1	0.9993	Slope	1.000692	$0.90 - 1.10$
40.0	40.1	0.9982	Intercept	0.019418	$\pm 3$
20.0	20.0	0.9979			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Barge Landing	Station number:	AMS 09
Calibration Date:	May 11, 2026	Last Cal Date:	April 7, 2026
Start time (MST):	9:53	End time (MST):	14:34
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC705748	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	505.6 ppm	CH4 Equiv Conc.	1068.8 ppm
C3H8 Cal Gas Conc.	204.8 ppm		
Removed Gas Cert:	CC151285	Removed Gas Expiry:	January 5, 2025
Removed CH4 Conc.	505.6 ppm	CH4 Equiv Conc.	1068.8 ppm
Removed C3H8 Conc.	204.8 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700P	Serial Number:	2464
Zero Air Gen model:	APIT701	Serial Number:	5613

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1193585650
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.34E-04	2.34E-04	NMHC SP Ratio:	5.63E-05	5.63E-05
CH4 Retention time:	14.4	14.4	NMHC Peak Area:	158132	158132
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	16.91	16.85	1.003
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.85	Prev response	16.93	*% change	-0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	16.91	16.86	1.003
Mid point	4961	39.5	8.44	8.35	1.011
Low point	4980	19.8	4.23	4.13	1.026
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	16.91	16.88	1.002
Average Correction Factor					1.013

Notes: Changed sample inlet filter after as founds. No adjustments made.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	8.91	8.89	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.89	Prev response	8.95	*% change	-0.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	8.91	8.91	1.000
Mid point	4961	39.5	4.45	4.42	1.008
Low point	4980	19.8	2.23	2.17	1.029
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	8.91	8.91	1.000
Average Correction Factor					1.012

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	8.00	7.96	1.005
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.96	Prev response	7.99	*% change	-0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	8.00	7.95	1.006
Mid point	4961	39.5	3.99	3.94	1.014
Low point	4980	19.8	2.00	1.96	1.022
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	8.00	7.97	1.004
Average Correction Factor					1.014

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.004818	0.998591
THC Cal Offset:	-0.054973	-0.051170
CH <sub>4</sub> Cal Slope:	1.002803	0.995100
CH <sub>4</sub> Cal Offset:	-0.026189	-0.018989
NMHC Cal Slope:	1.007332	1.002006
NMHC Cal Offset:	-0.029784	-0.031779

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

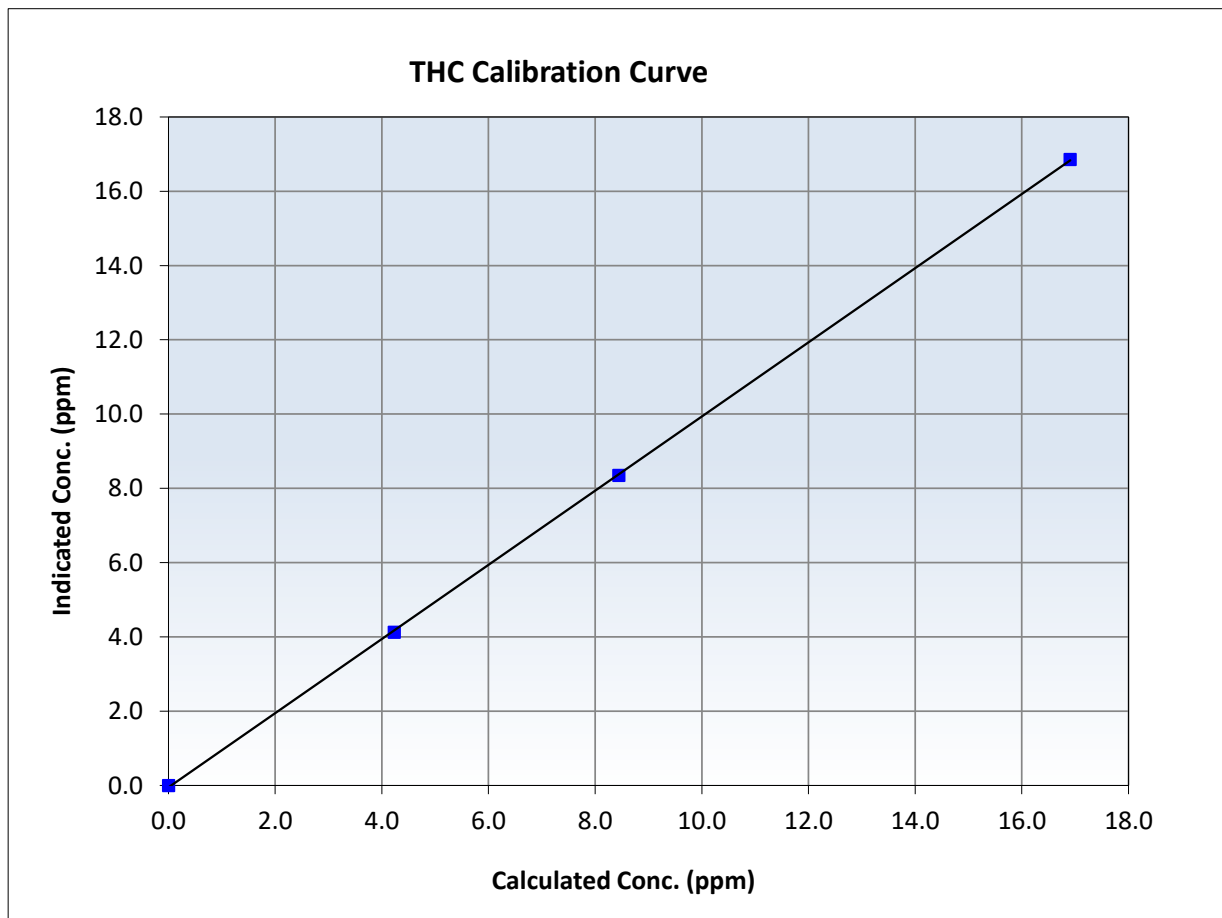
## THC Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 7, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:53	End Time (MST):	14:34
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585650

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999958 <span style="color: red;">≥0.995</span>
16.91	16.86	1.0029	Slope	0.998591 <span style="color: red;">0.90 - 1.10</span>
8.44	8.35	1.0111	Intercept	-0.051170 <span style="color: red;">+/-0.5</span>
4.23	4.13	1.0256		





# Wood Buffalo Environmental Association

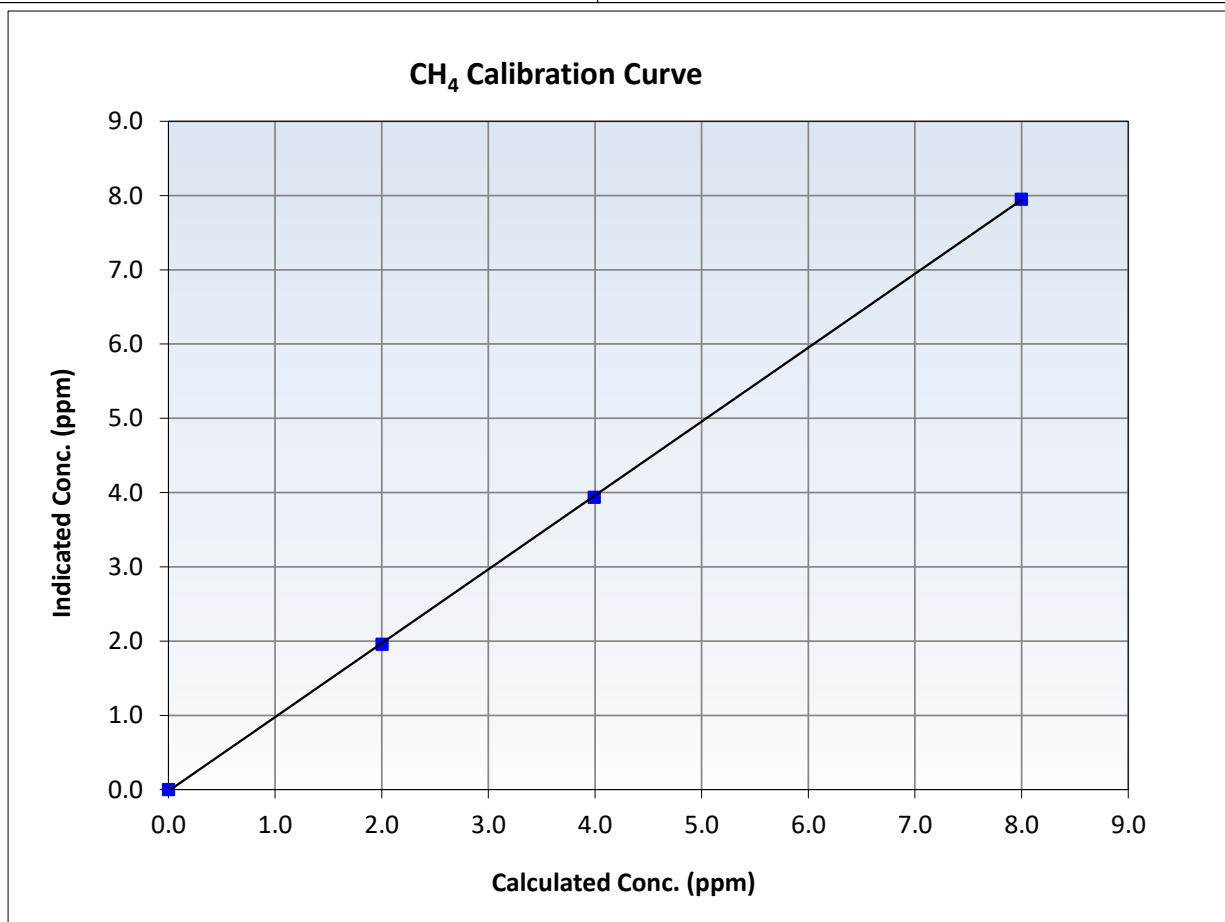
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 7, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:53	End Time (MST):	14:34
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585650

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999972 <span style="color: red;">≥0.995</span>
8.00	7.95	1.0058	Slope	0.995100 <span style="color: red;">0.90 - 1.10</span>
3.99	3.94	1.0139	Intercept	-0.018989 <span style="color: red;">+/-0.5</span>
2.00	1.96	1.0221		





# Wood Buffalo Environmental Association

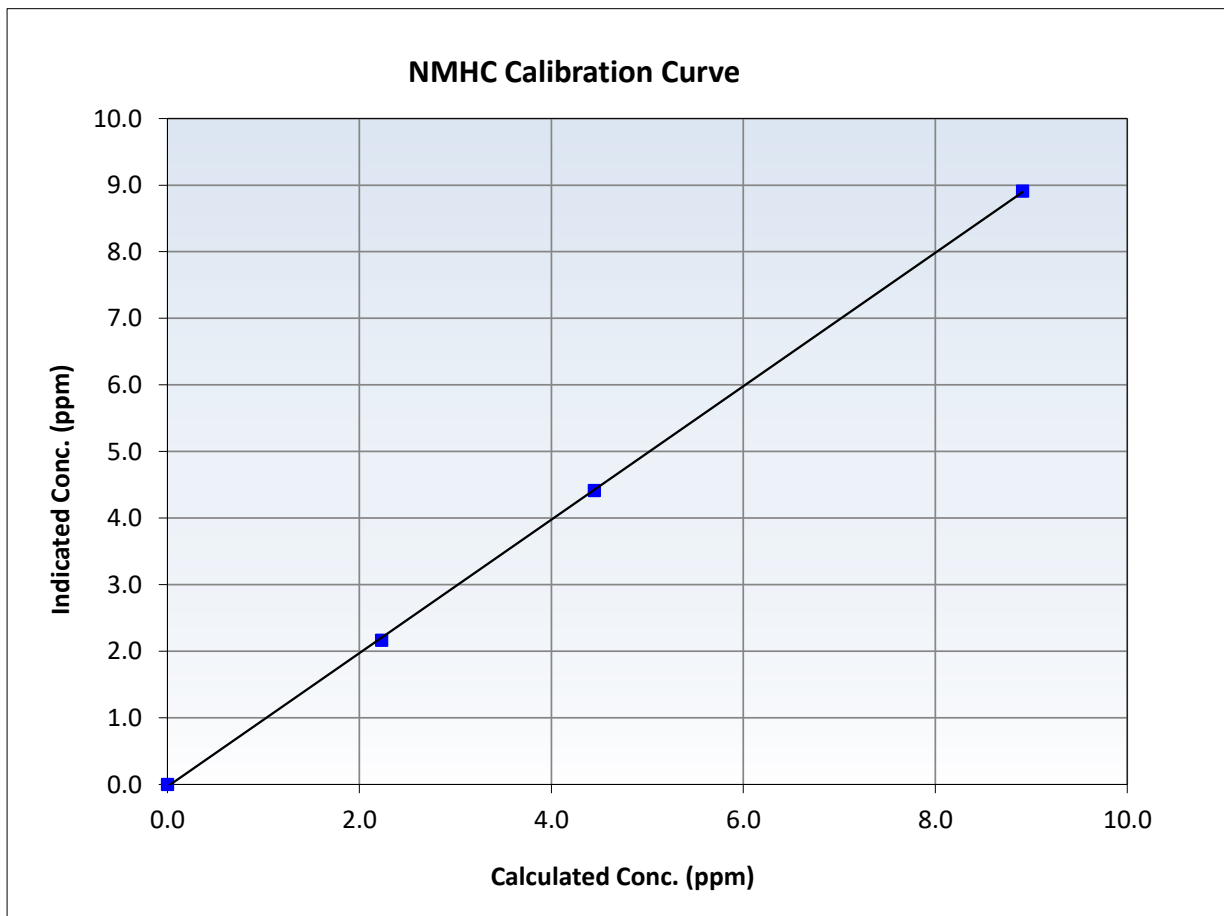
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 7, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:53	End Time (MST):	14:34
Analyzer make:	Thermo 55i	Analyzer serial #:	1193585650

### Calibration Data

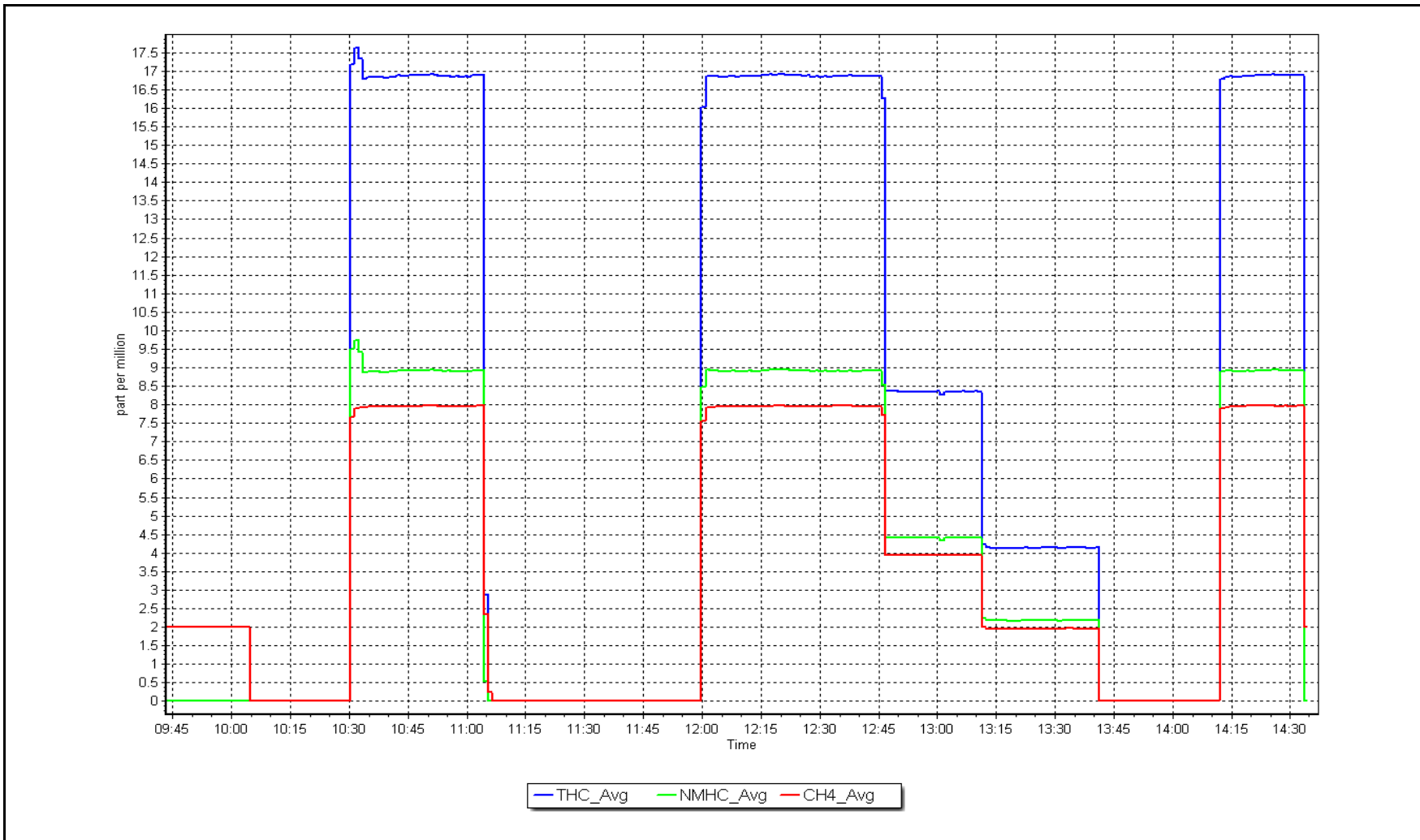
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999941	<i>≥0.995</i>
8.91	8.91	1.0000	Slope	1.002006	<i>0.90 - 1.10</i>
4.45	4.42	1.0077	Intercept	-0.031779	<i>+/-0.5</i>
2.23	2.17	1.0288			



NMHC Calibration Plot

Date: May 11, 2026

Location: Barge Landing





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Barge Landing  
 Station number: AMS 09  
 Calibration Date: May 8, 2026  
 Last Cal Date: April 10, 2026  
 Start time (MST): 9:03  
 End time (MST): 14:45  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: T2Y1KDH  
 NOX Cal Gas Conc: 47.38 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 47.38 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API 700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: November 17, 2026  
 NO Cal Gas Conc: 46.94 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 46.94 ppm  
 NO gas Diff:  
 Serial Number: 2464  
 Serial Number: 5613

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	0.0	-0.2	----	----
AF High point	4915	85.3	808.3	800.8	7.5	804.0	795.5	8.3	1.0051	1.0067
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO <sub>x</sub> = 807.1 ppb	NO = 799.8 ppb	<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.4%
Baseline Corr 1st pt	NO <sub>x</sub> = 804.2 ppb	NO = 795.5 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -0.5%
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :	NO SI:	NO Int:
			As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1426262593

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.998734	0.990986
NO <sub>x</sub> Cal Offset:	-0.212198	0.026247
NO Cal Slope:	1.000619	0.994198
NO Cal Offset:	-1.494307	-1.295527
NO <sub>2</sub> Cal Slope:	0.999411	0.995529
NO <sub>2</sub> Cal Offset:	-0.550331	-0.682176

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.141	1.141	NO bkgnd or offset:	10.5	10.5
NOX coeff or slope:	0.999	0.999	NOX bkgnd or offset:	10.8	10.8
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	175.6	176.5

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.1	-0.2	----	----
High point	4915	85.3	808.3	800.8	7.5	801.0	795.5	5.1	1.0091	1.0067
Mid point	4957	42.6	403.7	400.0	3.7	400.2	395.8	4.4	1.0088	1.0105
Low point	4979	21.3	201.8	200.0	1.9	200.0	196.0	4.0	1.0091	1.0202
As left zero	5000	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	----	----
As left span	4915	85.3	808.3	404.9	403.4	805.0	404.9	400.3	1.0041	1.0000
Average Correction Factor									1.0090	1.0124

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	794.7	404.7	397.5	395.5	1.0051	99.5%
Mid GPT point	794.7	595.5	206.7	204.3	1.0118	98.8%
Low GPT point	794.7	692.9	109.3	108.0	1.0121	98.8%
Average Correction Factor					1.0096	99.0%

Notes:

Changed the sample inlet filter after as founds. No adjustments made.

Calibration Performed By:

Braiden Boutilier



# Wood Buffalo Environmental Association

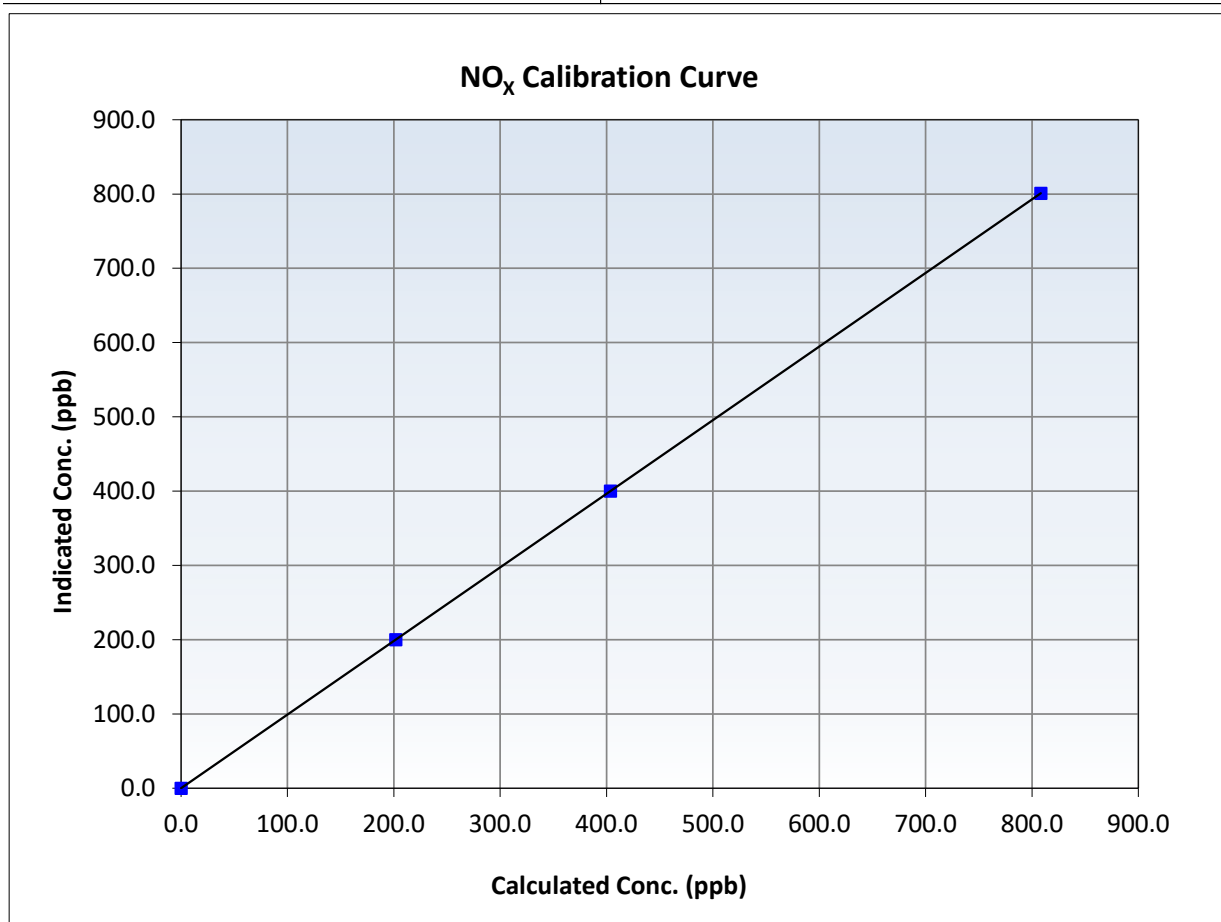
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	April 10, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:03	End Time (MST):	14:45
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262593

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	1.000000	≥0.995
808.3	801.0	1.0091	Slope	0.990986	0.90 - 1.10
403.7	400.2	1.0088	Intercept	0.026247	+/-20
201.8	200.0	1.0091			





# Wood Buffalo Environmental Association

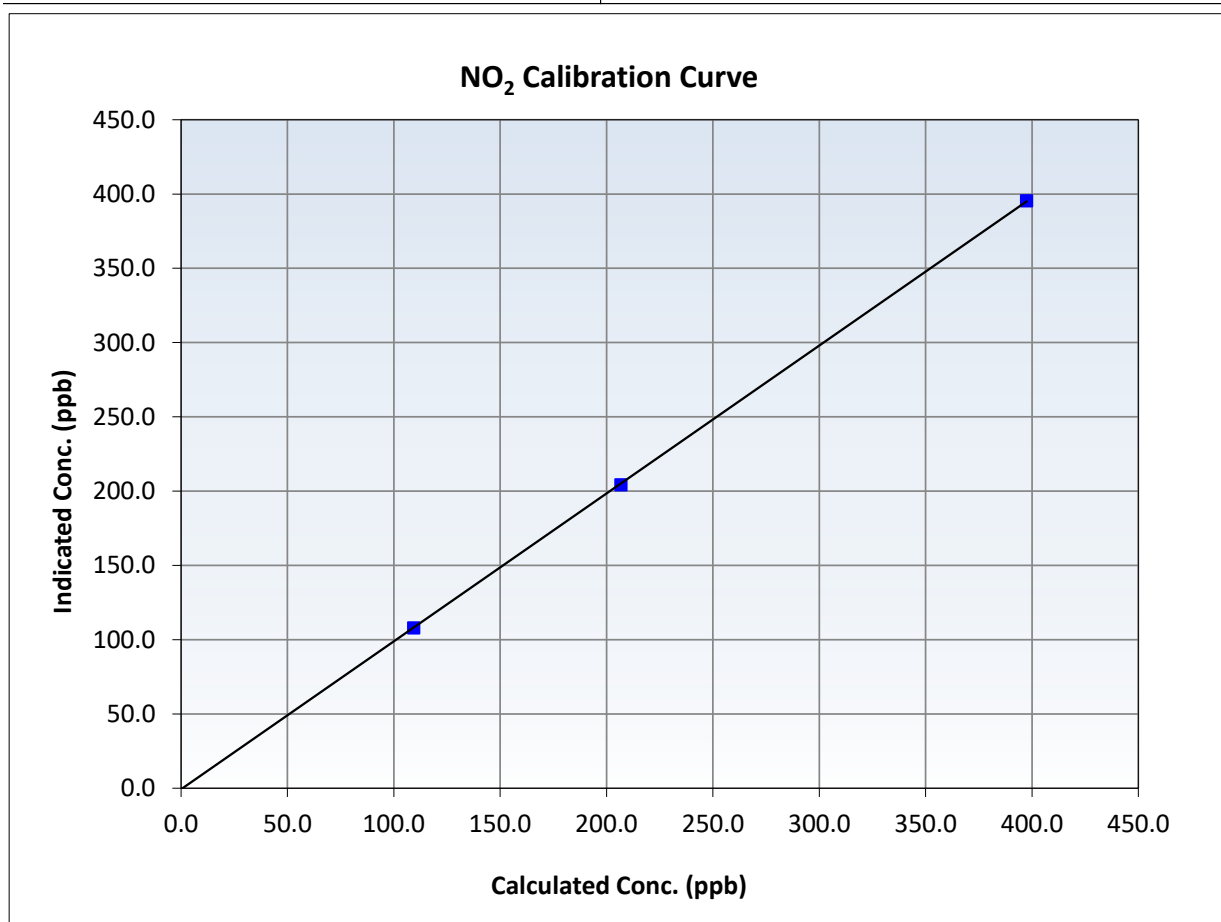
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	April 10, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:03	End Time (MST):	14:45
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262593

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999987	≥0.995
397.5	395.5	1.0051	Slope	0.995529	0.90 - 1.10
206.7	204.3	1.0118	Intercept	-0.682176	+/-20
109.3	108.0	1.0121			





# Wood Buffalo Environmental Association

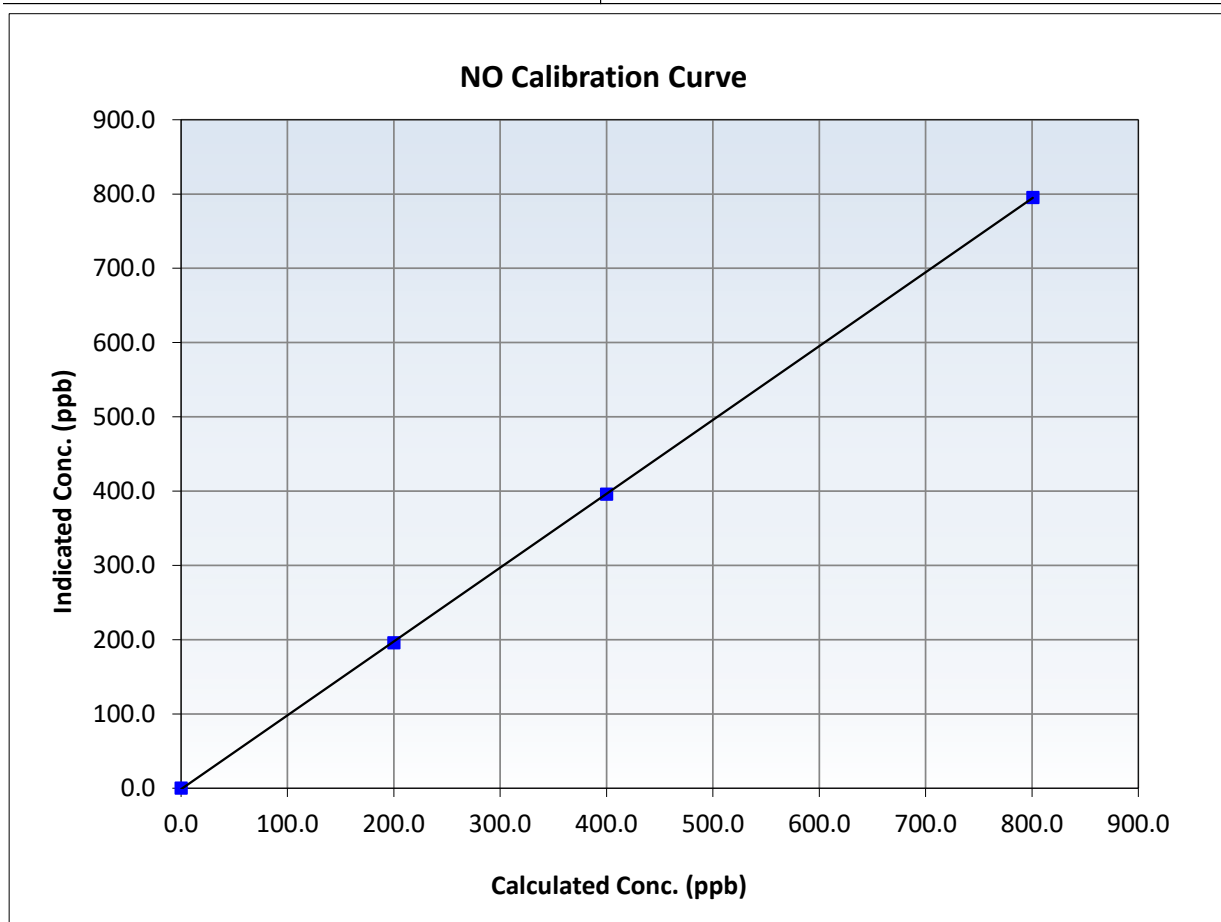
## NO Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	April 10, 2026
Station Name:	Barge Landing	Station Number:	AMS 09
Start Time (MST):	9:03	End Time (MST):	14:45
Analyzer make:	Thermo 42i	Analyzer serial #:	1426262593

### Calibration Data

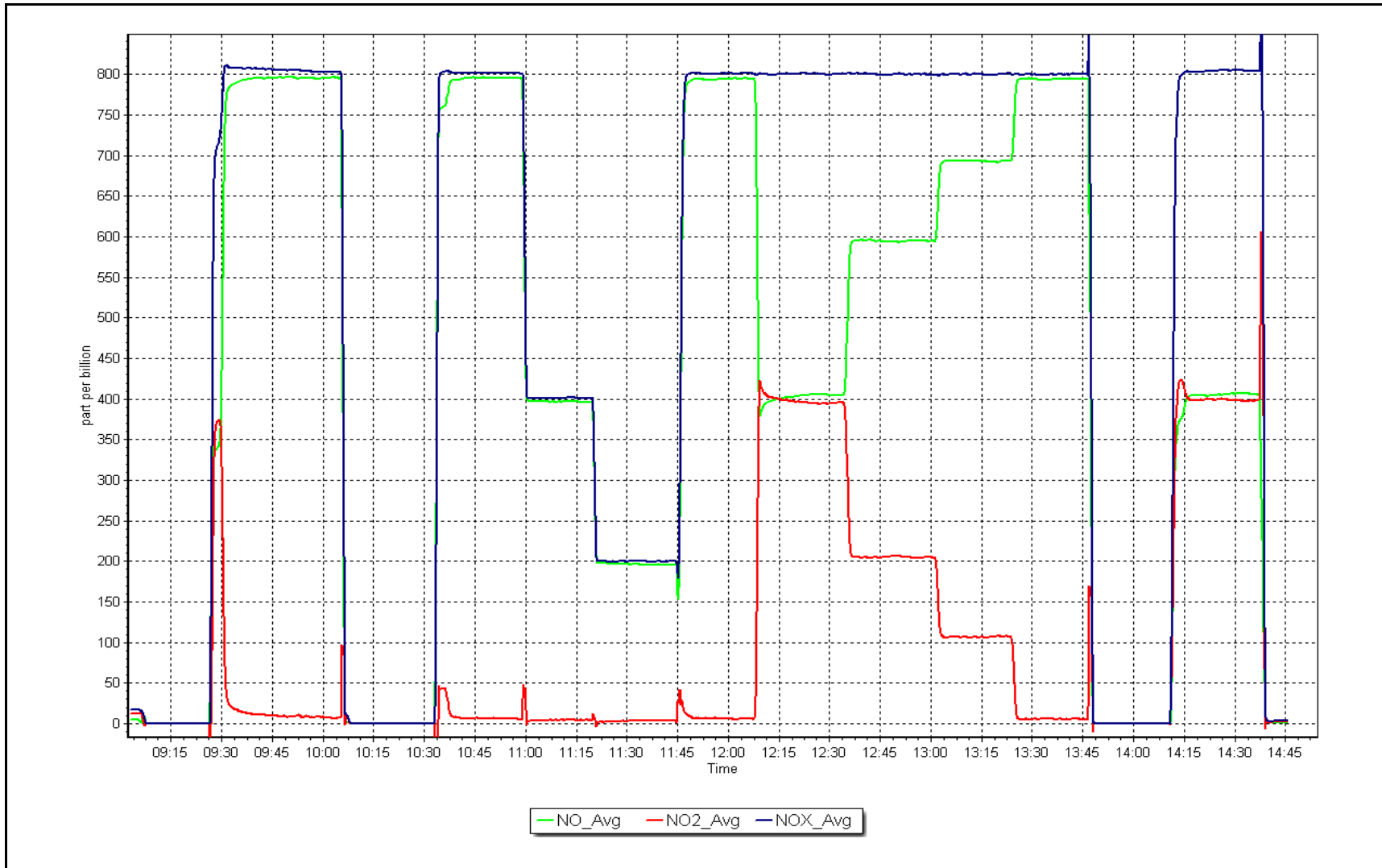
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999986	<i>≥0.995</i>
800.8	795.5	1.0067	Slope	0.994198	<i>0.90 - 1.10</i>
400.0	395.8	1.0105	Intercept	-1.295527	<i>+/-20</i>
200.0	196.0	1.0202			



NO<sub>x</sub> Calibration Plot

Date: May 8, 2026

Location: Barge Landing





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Barge Landing Station number: AMS 09  
 Calibration Date: May 11, 2026 Last Cal Date: April 20, 2026  
 Start time (MST): 12:46 End time (MST): 14:23

Analyzer Make: API T640 S/N: 2237  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388750  
 Temp/RH standard: Alicat FP-25 S/N: 388750

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	20.7	20.59	20.7	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	731.3	730.77	731.3	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.01	4.998	5.01	<input checked="" type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	31	----	31	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	16.0	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: January 30, 2027  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	6.0	10.8	10.8	<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: May 11, 2026  
 Date Disposable Filter Changed: May 11, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: March 5, 2026  
 Date RH/T Sensor Cleaned: July 22, 2025

Notes: Verified flow, pressure, temperature and pump power. Adjusted flow post cleaning.

Calibration by: Braiden Boutillier



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS11 LOWER CAMP MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Lower Camp	Station number:	AMS 11
Calibration Date:	May 22, 2026	Last Cal Date:	April 27, 2026
Start time (MST):	9:29	End time (MST):	12:44
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	48.75	ppm	Cal Gas Exp Date:	October 9, 2032
Cal Gas Cylinder #:	CC741503			
Removed Cal Gas Conc:	48.75	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:	CC741503		Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	3811
Zero Air Gen Model:	Teledyne API T701		Serial Number:	4428

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	100841398
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.996419	1.003271	Backgd or Offset:	19.2	20.1
Calibration intercept:	0.646542	0.046714	Coeff or Slope:	1.040	1.040

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.6	----
As found High point	4918	82.1	800.5	803.0	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	802.4	Previous response	798.2	*% change	0.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4918	82.1	800.5	803.2	0.997
Mid point	4959	41.1	400.7	401.7	0.998
Low point	4980	20.5	199.9	201.0	0.994
As left zero	5000	0.0	0.0	-0.1	----
As left span	4918	82.1	800.5	804.9	0.994
Average Correction Factor:					0.996

Notes: Inlet filter changed after as founds, Adjusted zero only.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

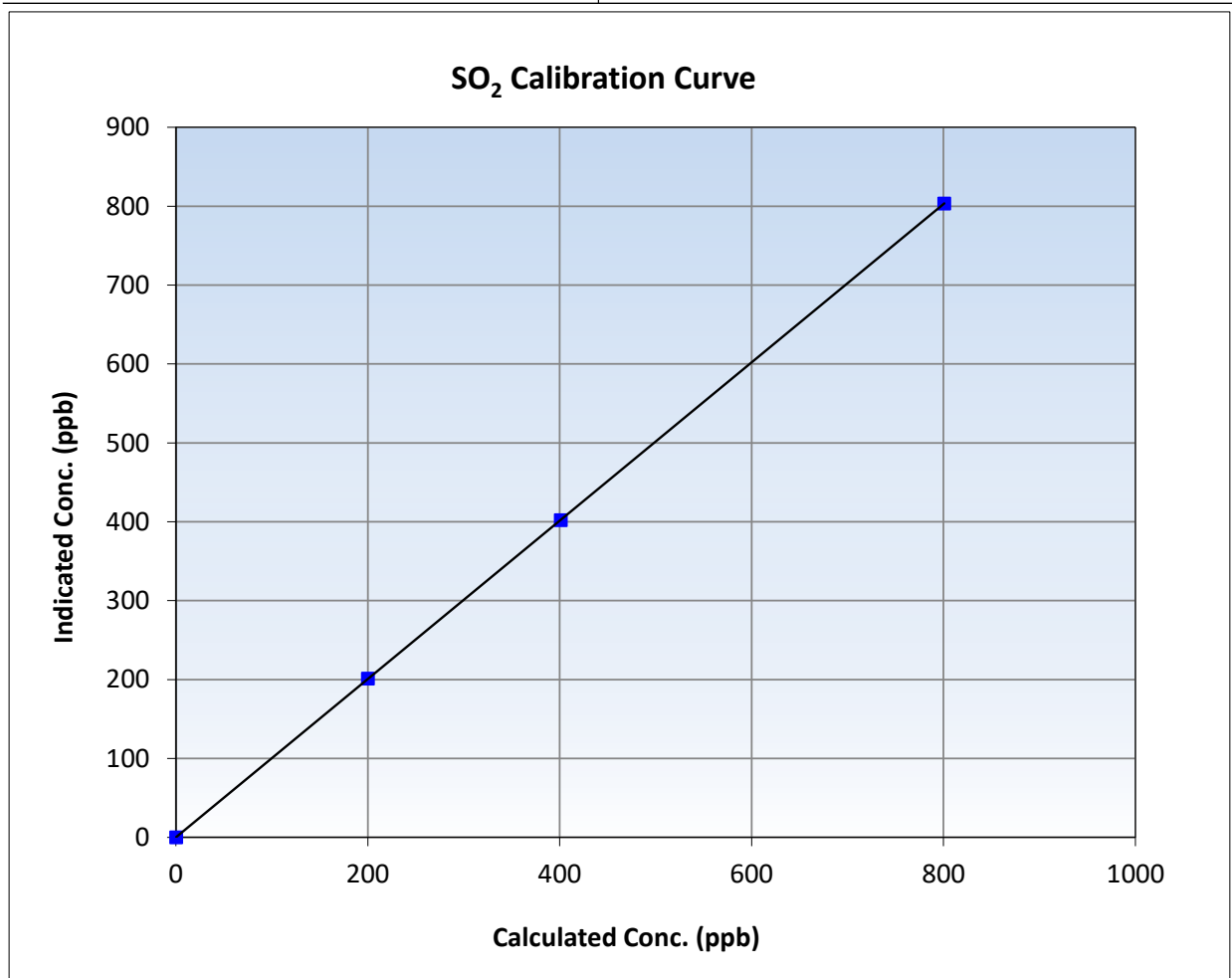
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 27, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:29	End Time (MST):	12:44
Analyzer make:	Thermo 43i	Analyzer serial #:	100841398

### Calibration Data

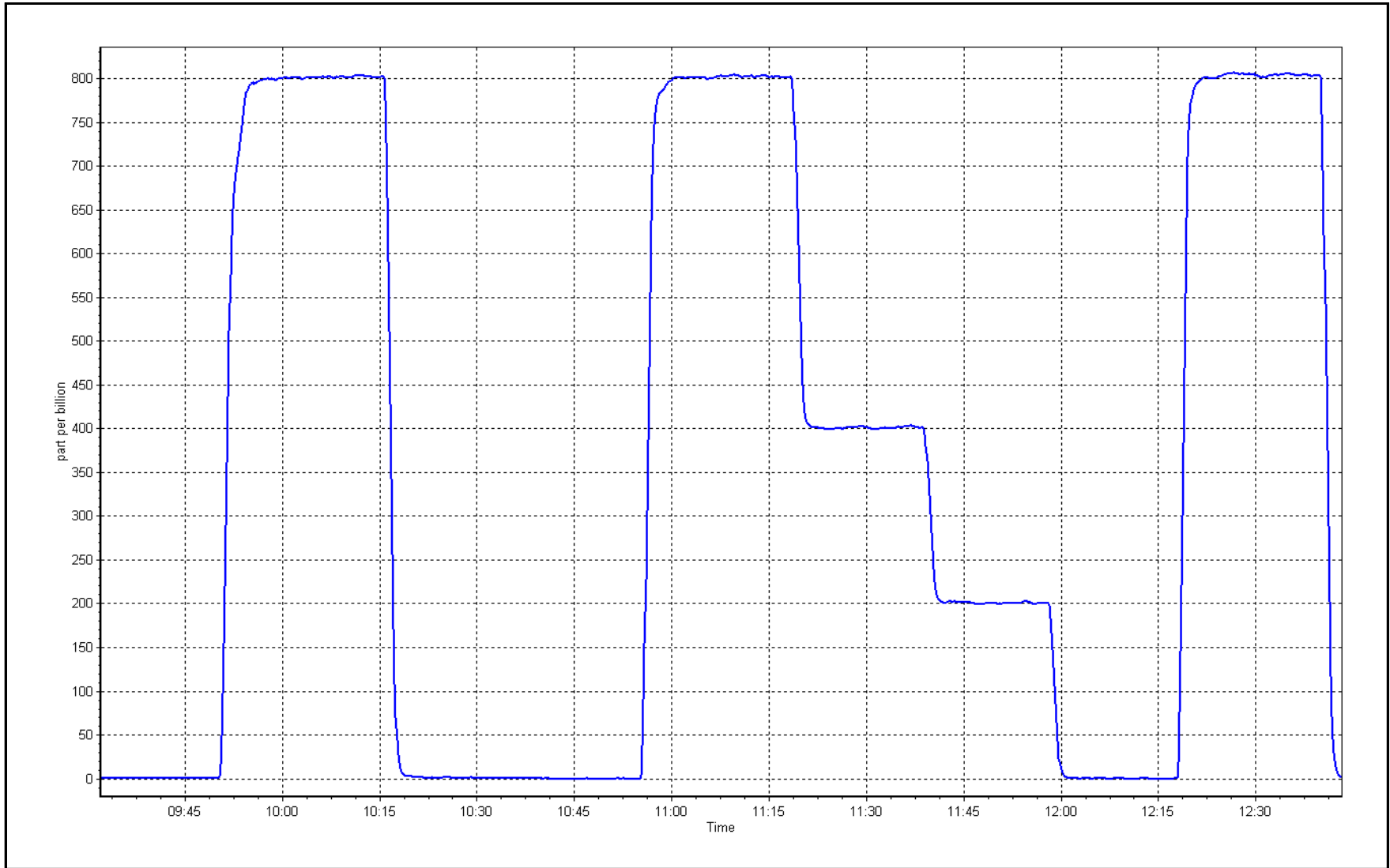
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	-0.1	----	Correlation Coefficient	0.999999	≥0.995
800.5	803.2	0.9966	Slope	1.003271	0.90 - 1.10
400.7	401.7	0.9976	Intercept	0.046714	+/-30
199.9	201.0	0.9943			



SO2 Calibration Plot

Date: April 27, 2026

Location: Lower Camp





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Lower Camp	Station number:	AMS 11
Calibration Date:	May 4, 2026	Last Cal Date:	April 23, 2026
Start time (MST):	9:38	End time (MST):	13:21
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.83	ppm	Cal Gas Exp Date:	August 28, 2027
Cal Gas Cylinder #:	CC737863			
Removed Cal Gas Conc:	4.83	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	API T700		Serial Number:	3811
ZAG Make/Model:	API T701H		Serial Number:	4428

### Analyzer Information

Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	1203169745
Converter make:	Global G150	Converter serial #:	2022-223
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.009303	1.007160	Backgd or Offset:	2.5	2.5
Calibration intercept:	0.280814	0.180807	Coeff or Slope:	0.816	0.802

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4917	82.8	80.0	82.1	0.974
As found Mid point	4959	41.4	40.0	41.4	0.966
As found Low point	4979	20.7	20.0	20.8	0.961
New cylinder response					
Baseline Corr As found:	82.1	Prev response:	81.01	*% change:	1.3%
Baseline Corr 2nd AF pt:	41.4	AF Slope:	1.025734	AF Intercept:	0.180830
Baseline Corr 3rd AF pt:	20.8	AF Correlation:	0.999973	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4917	82.8	80.0	80.7	0.991
Mid point	4959	41.4	40.0	40.5	0.987
Low point	4979	20.7	20.0	20.4	0.980
As left zero	5000	0.0	0.0	0.1	----
As left span	4923	82.8	79.9	80.7	0.990
SO2 Scrubber Check	4932	82.2	819.7	0.0	----
Date of last scrubber change:				Ave Corr Factor	<b>0.986</b>
Date of last converter efficiency test:					

Notes: Inlet filter changed after as founds, scrubber check passed, adjusted span only.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

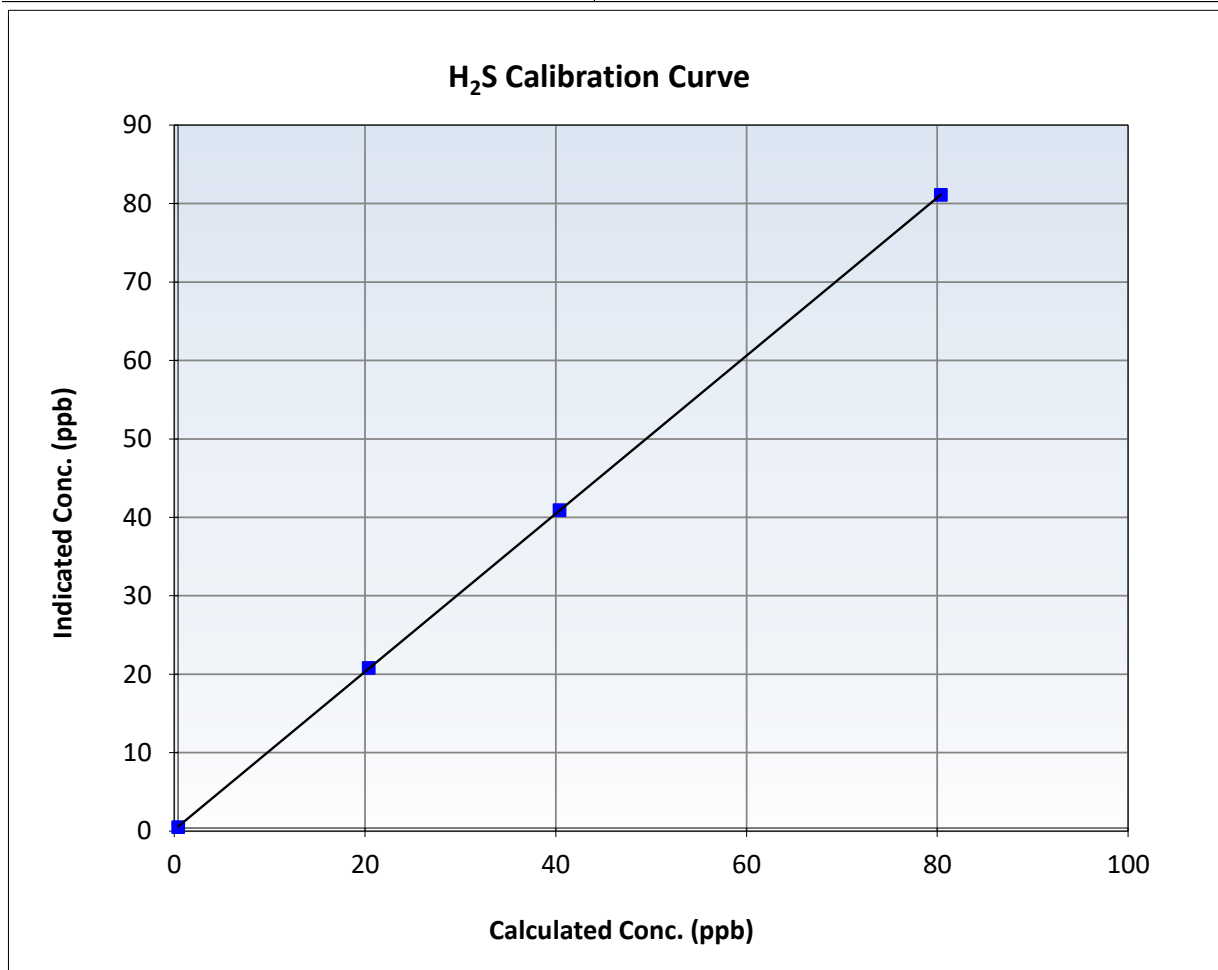
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 4, 2026	Previous Calibration:	April 23, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:38	End Time (MST):	13:21
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	1203169745

### Calibration Data

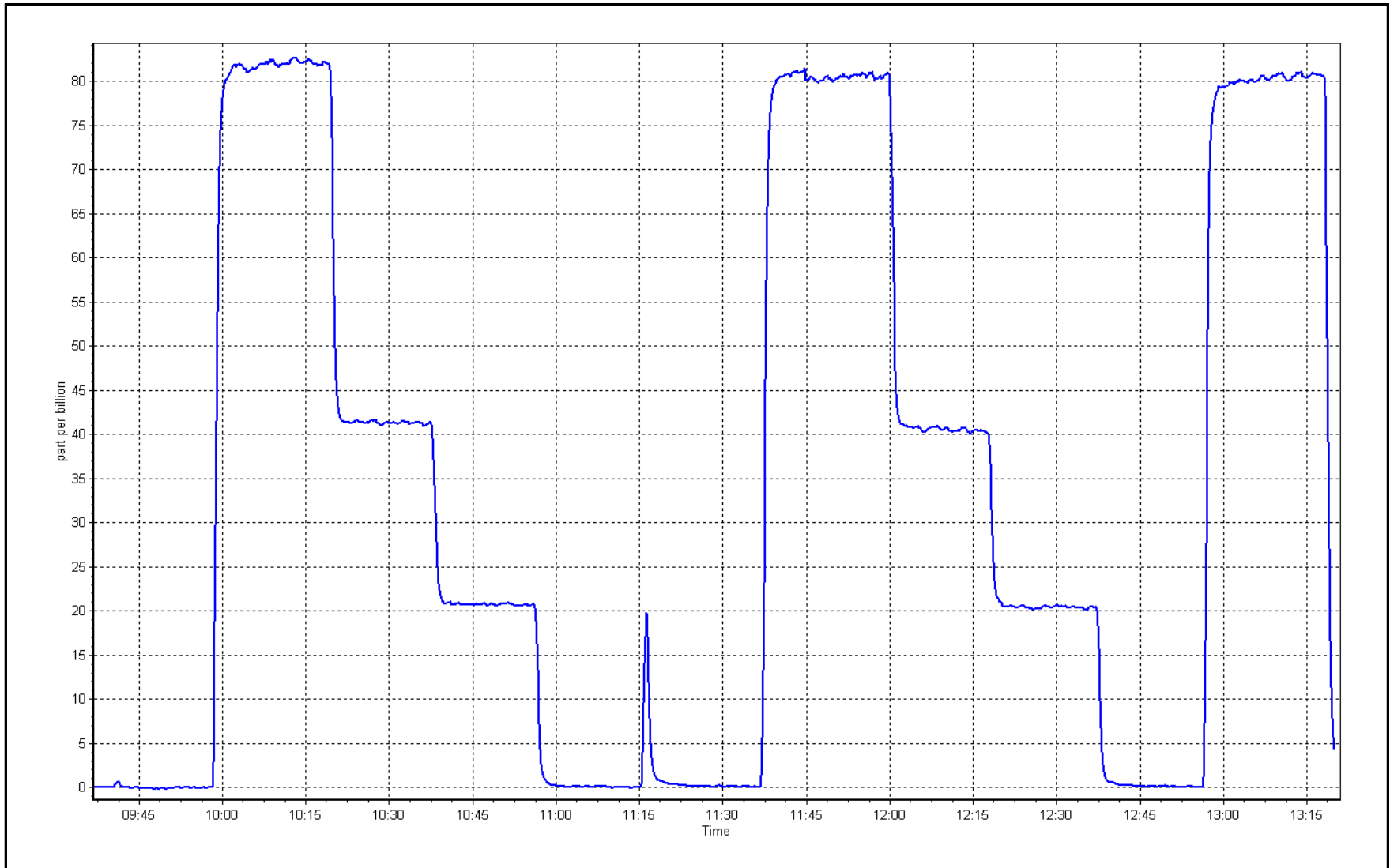
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999995	≥0.995
80.0	80.7	0.9912	Slope	1.007160	0.90 - 1.10
40.0	40.5	0.9874	Intercept	0.180807	+/-3
20.0	20.4	0.9803			



H<sub>2</sub>S Calibration Plot

Date: May 4, 2026

Location: Lower Camp





# Wood Buffalo Environmental Association

## THC / CH4 / NMHC Calibration Report

### Station Information

Station Name:	Lower Camp	Station number:	AMS 11
Calibration Date:	May 22, 2026	Last Cal Date:	April 27, 2026
Start time (MST):	9:29	End time (MST):	12:44
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC741503	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	504.8 ppm	CH4 Equiv Conc.	1071.9 ppm
C3H8 Cal Gas Conc.	206.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	504.8 ppm	CH4 Equiv Conc.	1071.9 ppm
Removed C3H8 Conc.	206.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	3811
Zero Air Gen model:	Teledyne API T701	Serial Number:	4428

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1152430012
THC Range: 0 - 20 ppm	NMHC/CH4 Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.31E-04	2.31E-04	NMHC SP Ratio:	5.35E-05	5.35E-05
CH4 Retention time:	13.2	13.2	NMHC Peak Area:	174083	174083
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	17.60	17.68	0.995
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.68	Prev response	17.61	*% change	0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	17.60	17.69	0.995
Mid point	4959	41.1	8.81	8.84	0.997
Low point	4980	20.5	4.39	4.46	0.986
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	17.60	17.53	1.004
Average Correction Factor					0.993

Notes: Inlet filter changed after as founds, No adjustment.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	9.31	9.40	0.991
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.40	Prev response	9.35	*% change	0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	9.31	9.40	0.990
Mid point	4959	41.1	4.66	4.71	0.990
Low point	4980	20.5	2.32	2.38	0.978
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	9.31	9.31	1.000
Average Correction Factor					0.986

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	8.29	8.29	1.000
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.29	Prev response	8.26	*% change	0.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.29	8.30	0.999
Mid point	4959	41.1	4.15	4.13	1.004
Low point	4980	20.5	2.07	2.08	0.994
As left zero	5000	0.0	0.00	0.00	----
As left span	4918	82.1	8.29	8.22	1.009
Average Correction Factor					0.999

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.000435	1.004303
THC Cal Offset:	0.004148	0.012360
CH <sub>4</sub> Cal Slope:	0.997187	1.000206
CH <sub>4</sub> Cal Offset:	-0.007921	-0.000123
NMHC Cal Slope:	1.003057	1.008625
NMHC Cal Offset:	0.012670	0.011483

Calibration Performed By:

Sean Bala



# Wood Buffalo Environmental Association

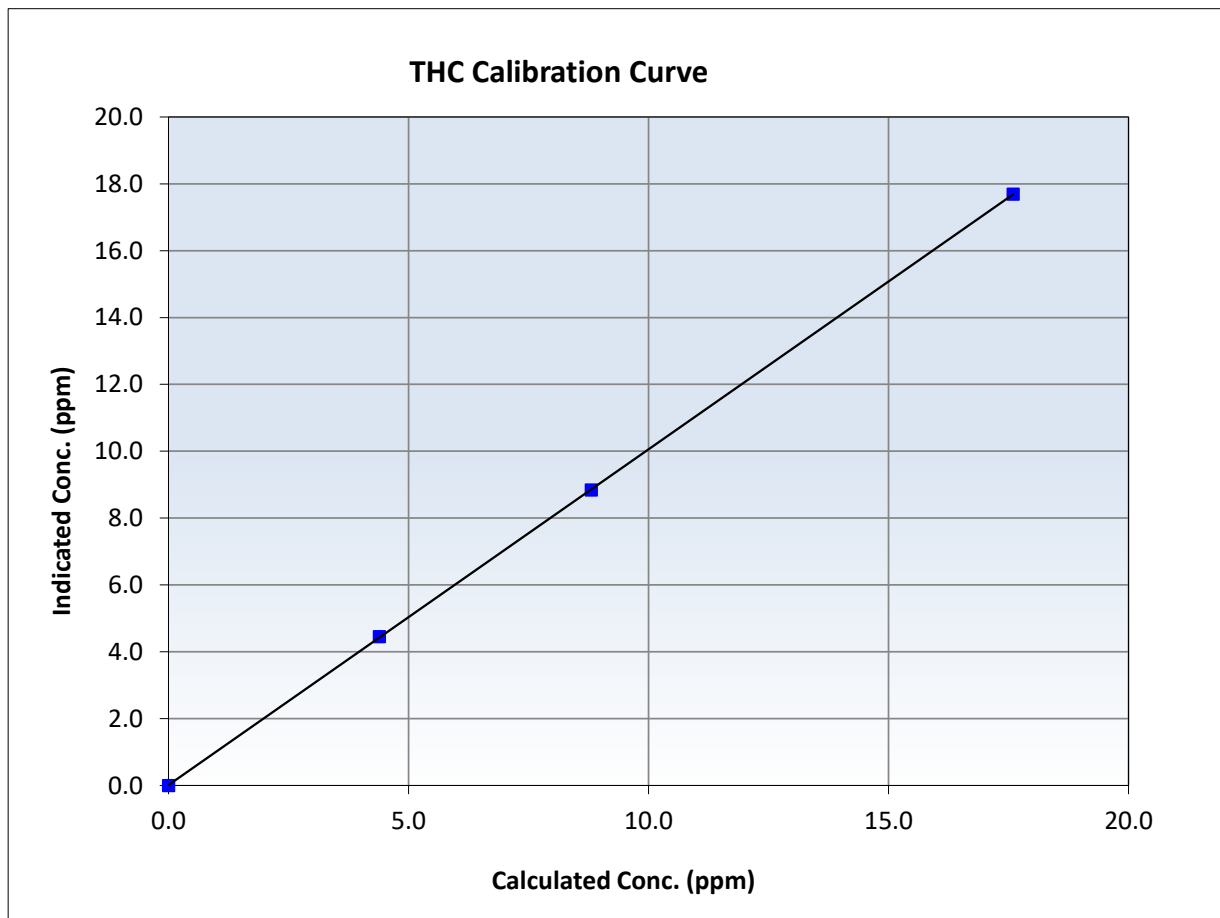
## THC Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 27, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:29	End Time (MST):	12:44
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430012

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999990	<i>≥0.995</i>
17.60	17.69	0.9948	Slope	1.004303	<i>0.90 - 1.10</i>
8.81	8.84	0.9969	Intercept	0.012360	<i>+/-0.5</i>
4.39	4.46	0.9859			





# Wood Buffalo Environmental Association

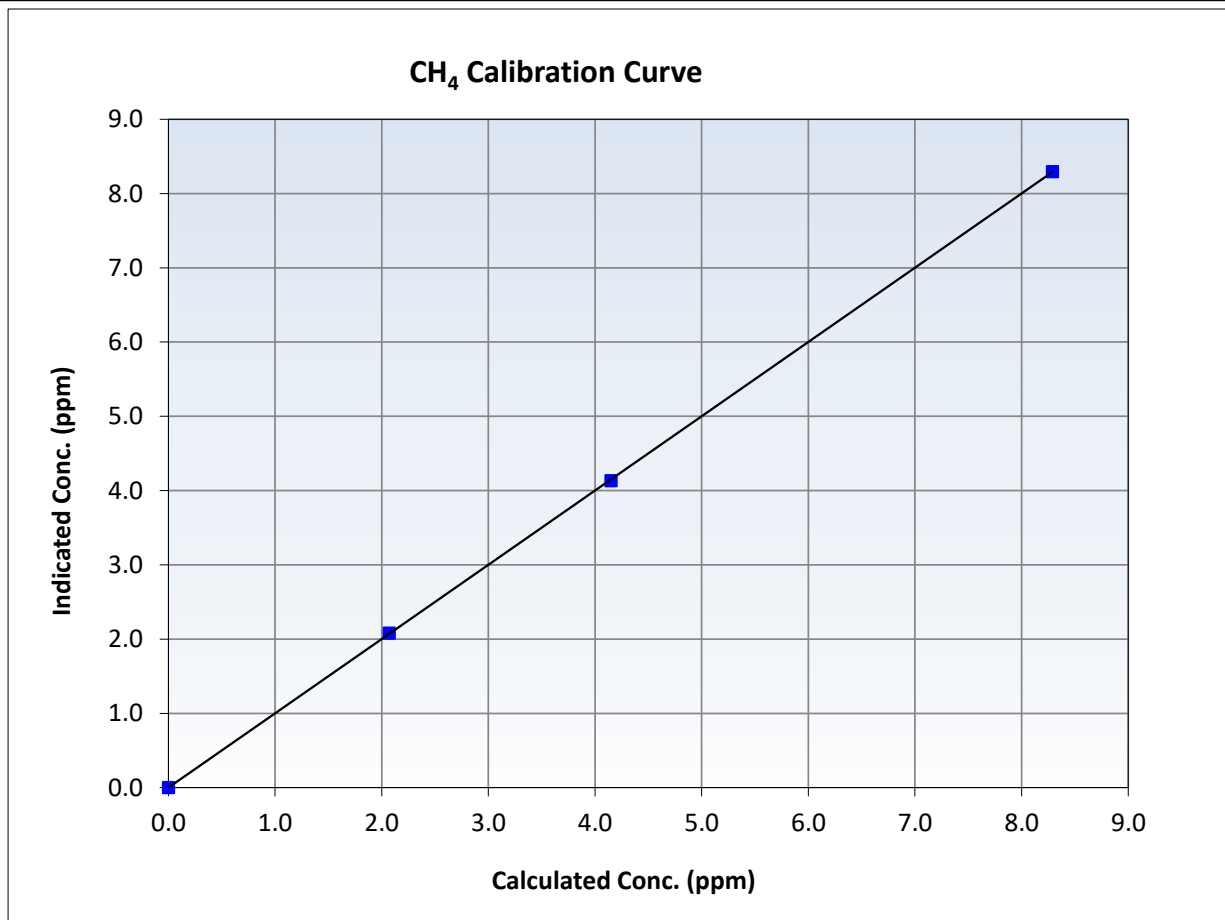
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 27, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:29	End Time (MST):	12:44
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430012

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999988	<i>≥0.995</i>
8.29	8.30	0.9991	Slope	1.000206	<i>0.90 - 1.10</i>
4.15	4.13	1.0040	Intercept	-0.000123	<i>+/-0.5</i>
2.07	2.08	0.9945			





# Wood Buffalo Environmental Association

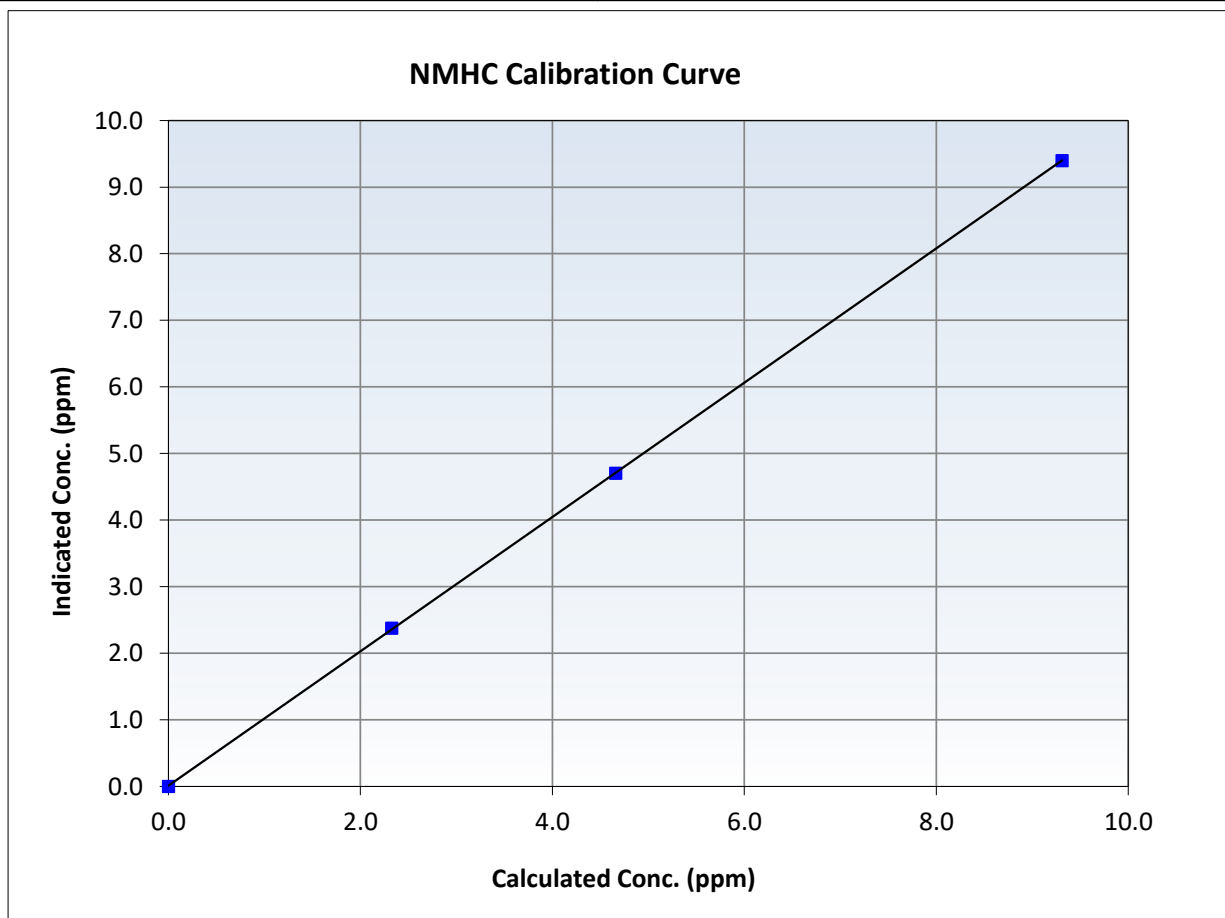
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 27, 2026
Station Name:	Lower Camp	Station Number:	AMS 11
Start Time (MST):	9:29	End Time (MST):	12:44
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430012

### Calibration Data

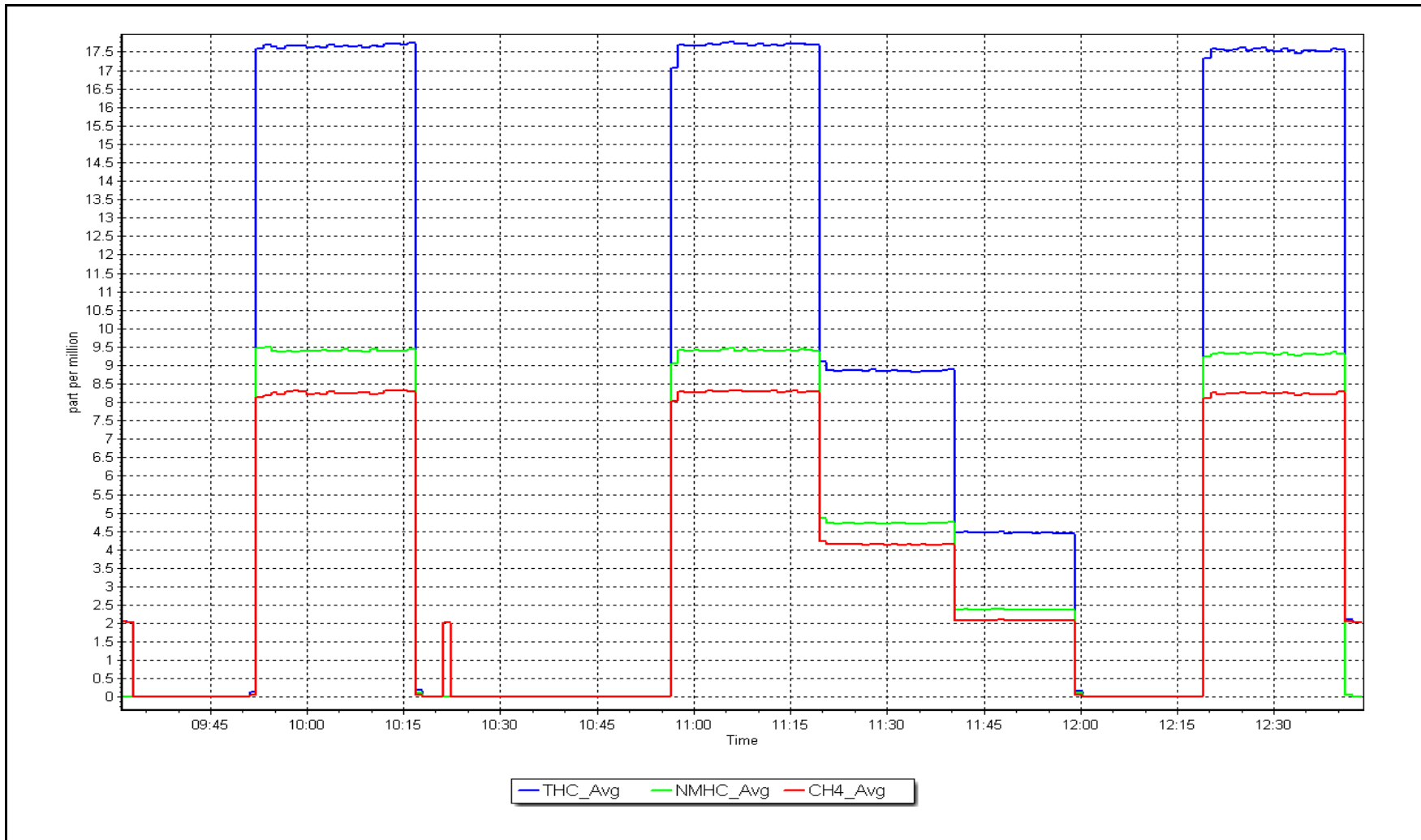
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999988	<i>≥0.995</i>
9.31	9.40	0.9904	Slope	1.008625	<i>0.90 - 1.10</i>
4.66	4.71	0.9905	Intercept	0.011483	<i>+/-0.5</i>
2.32	2.38	0.9784			



NMHC Calibration Plot

Date: May 22, 2026

Location: Lower Camp





## **WOOD BUFFALO ENVIRONMENTAL ASSOCIATION**

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS13 FORT MCKAY SOUTH MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Fort McKay South	Station number: AMS 13
Calibration Date:	May 19, 2026	Last Cal Date: April 2, 2026
Start time (MST):	9:50	End time (MST): 12:36
Reason:	Routine	

### Calibration Standards

Cal Gas Concentration:	50.55 ppm	Cal Gas Exp Date: December 29, 2028
Cal Gas Cylinder #:	CC260812	
Removed Cal Gas Conc:	50.55 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA	Diff between cyl:
Calibrator Model:	Teledyne API T700	Serial Number: 2657
Zero Air Gen Model:	Teledyne API T701	Serial Number: 1118

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Serial Number: 1331259320
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.996023	1.004258	Backgd or Offset:	3.06	3.06
Calibration intercept:	0.322151	0.041614	Coeff or Slope:	0.982	0.982

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4921	79.1	799.7	806.4	0.991
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	806.7	Previous response	796.8	*% change	1.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4921	79.1	799.7	803.1	0.996
Mid point	4961	39.5	399.3	401.1	0.996
Low point	4980	19.8	200.2	201.1	0.995
As left zero	5000	0.0	0.0	-0.1	----
As left span	4921	79.1	799.7	798.9	1.001
Average Correction Factor:					0.996

Notes: Changed inlet filter after as founds. No adjustment made.

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

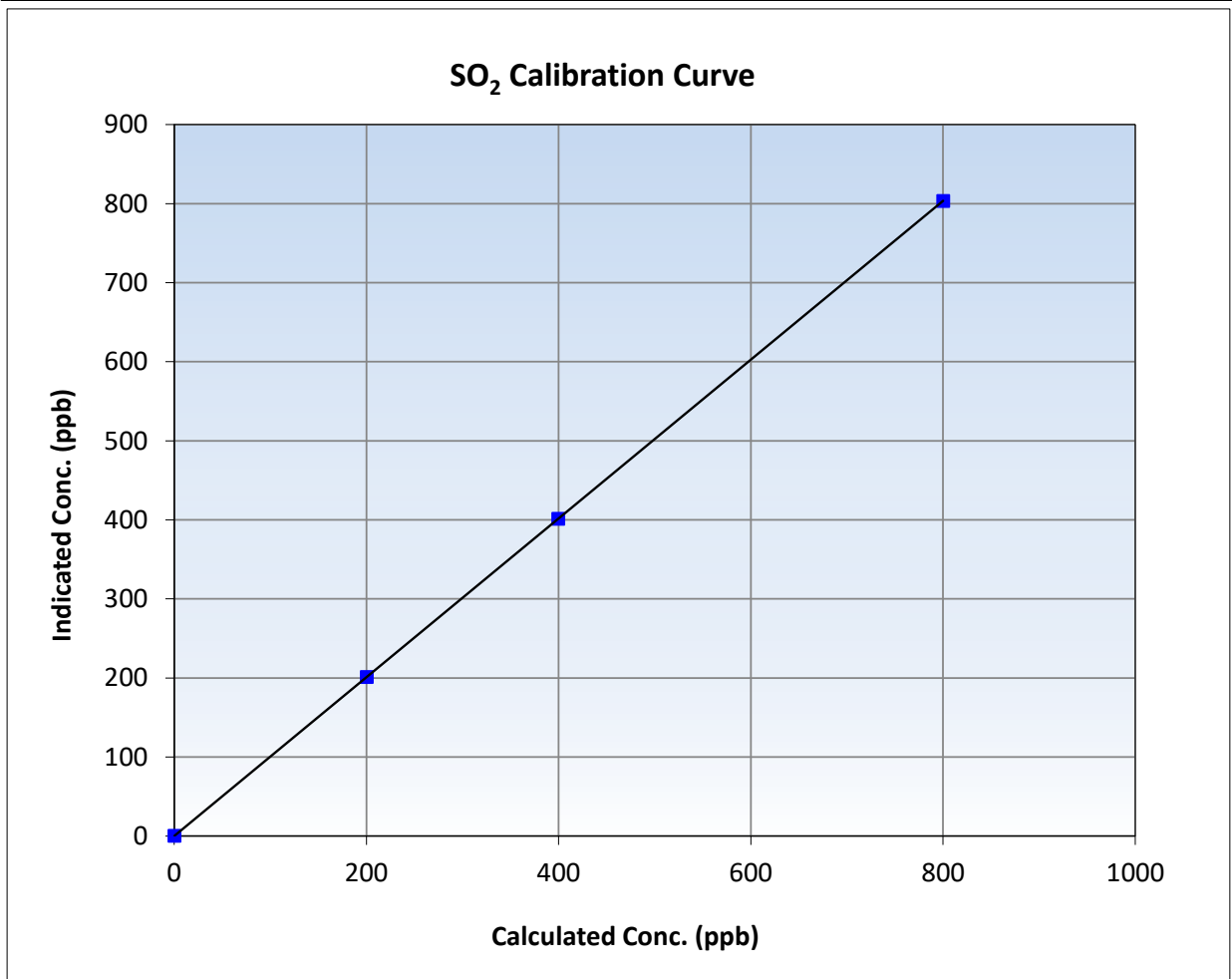
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 2, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:50	End Time (MST):	13:39
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1331259320

### Calibration Data

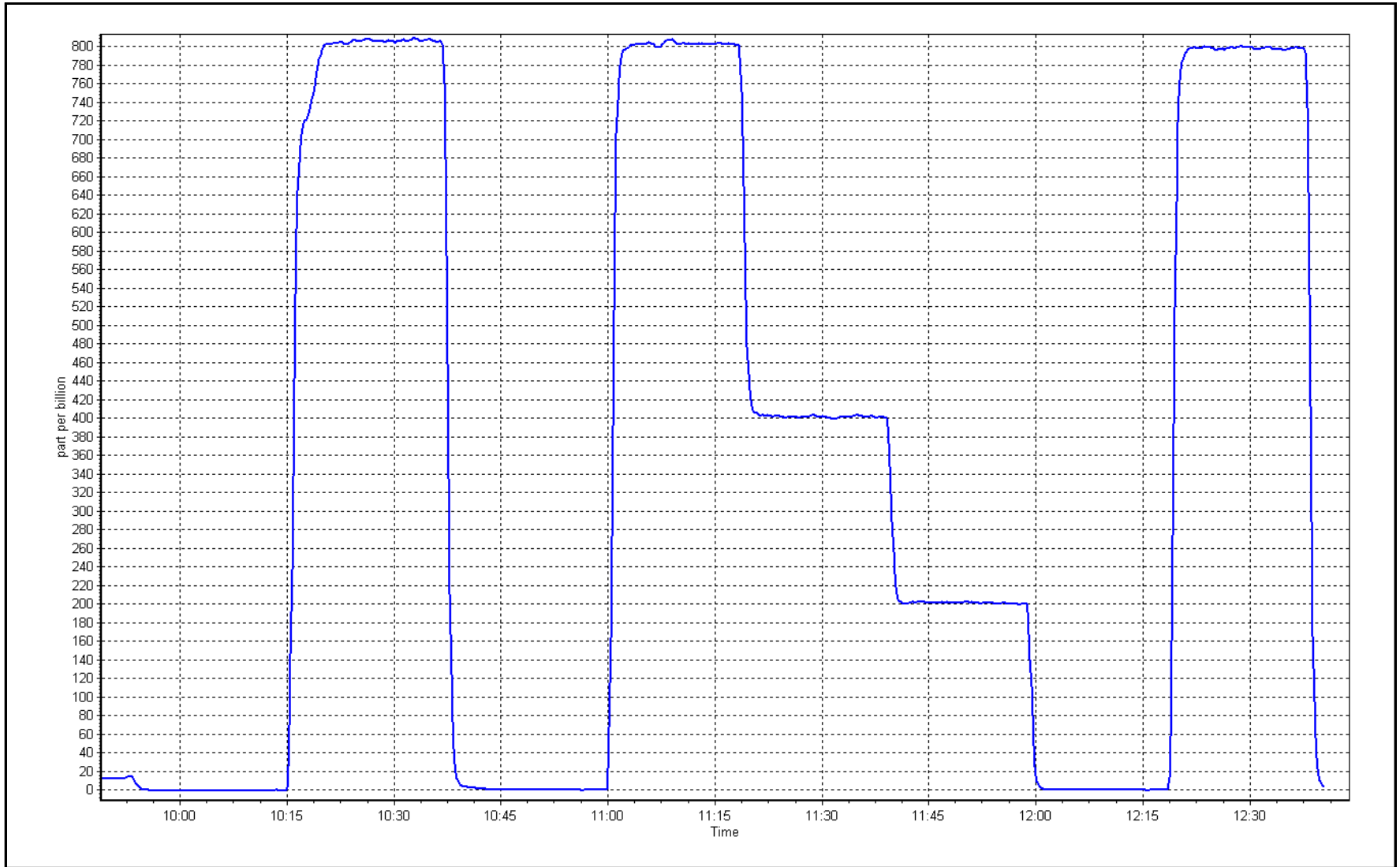
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000
799.7	803.1	0.9957	Slope	1.004258
399.3	401.1	0.9955	Intercept	0.041614
200.2	201.1	0.9955		
				<span style="color: red;">≥0.995</span> <span style="color: red;">0.90 - 1.10</span> <span style="color: red;">+/-30</span>



SO2 Calibration Plot

Date: May 19, 2026

Location: Fort McKay South





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Fort McKay South	Station number:	AMS 13
Calibration Date:	May 13, 2026	Last Cal Date:	April 15, 2026
Start time (MST):	9:59	End time (MST):	13:46
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.88	ppm	Cal Gas Exp Date:	September 5, 2027
Cal Gas Cylinder #:	CC500241			
Removed Cal Gas Conc:	4.88	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:	CC500241		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700P		Serial Number:	2657
ZAG Make/Model:	Teledyne API T701		Serial Number:	1118

### Analyzer Information

Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1180540017
Converter make:	CDN-101	Converter serial #:	521
Analyzer Range	0 - 100 ppb	Converter Temp:	800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002830	1.005556	Backgd or Offset:	3.74	3.79
Calibration intercept:	-0.118408	-0.238407	Coeff or Slope:	1.12	1.135

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4918	81.6	79.6	79.0	1.008
As found Mid point	4959	40.8	39.8	39.0	1.021
As found Low point	4980	20.4	19.9	19.2	1.037
New cylinder response					
Baseline Corr As found:	79.0	Prev response:	79.75	*% change:	-1.0%
Baseline Corr 2nd AF pt:	39.0	AF Slope:	0.993504	AF Intercept:	-0.318430
Baseline Corr 3rd AF pt:	19.2	AF Correlation:	0.999923	<i>* = &gt; +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4918	81.6	79.6	80.0	0.996
Mid point	4959	40.8	39.8	39.6	1.006
Low point	4980	20.4	19.9	19.6	1.016
As left zero	5000	0.0	0.0	0.0	----
As left span	4918	81.6	79.6	79.7	0.999
SO2 Scrubber Check	4921	79.1	791.0	0.0	----
Date of last scrubber change:	7-Aug-25			Ave Corr Factor	1.006
Date of last converter efficiency test:					

Notes: Changed inlet filter after multipoint as founds. SO2 scrubber check after calibrator zero and passed. Adjusted span only.

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

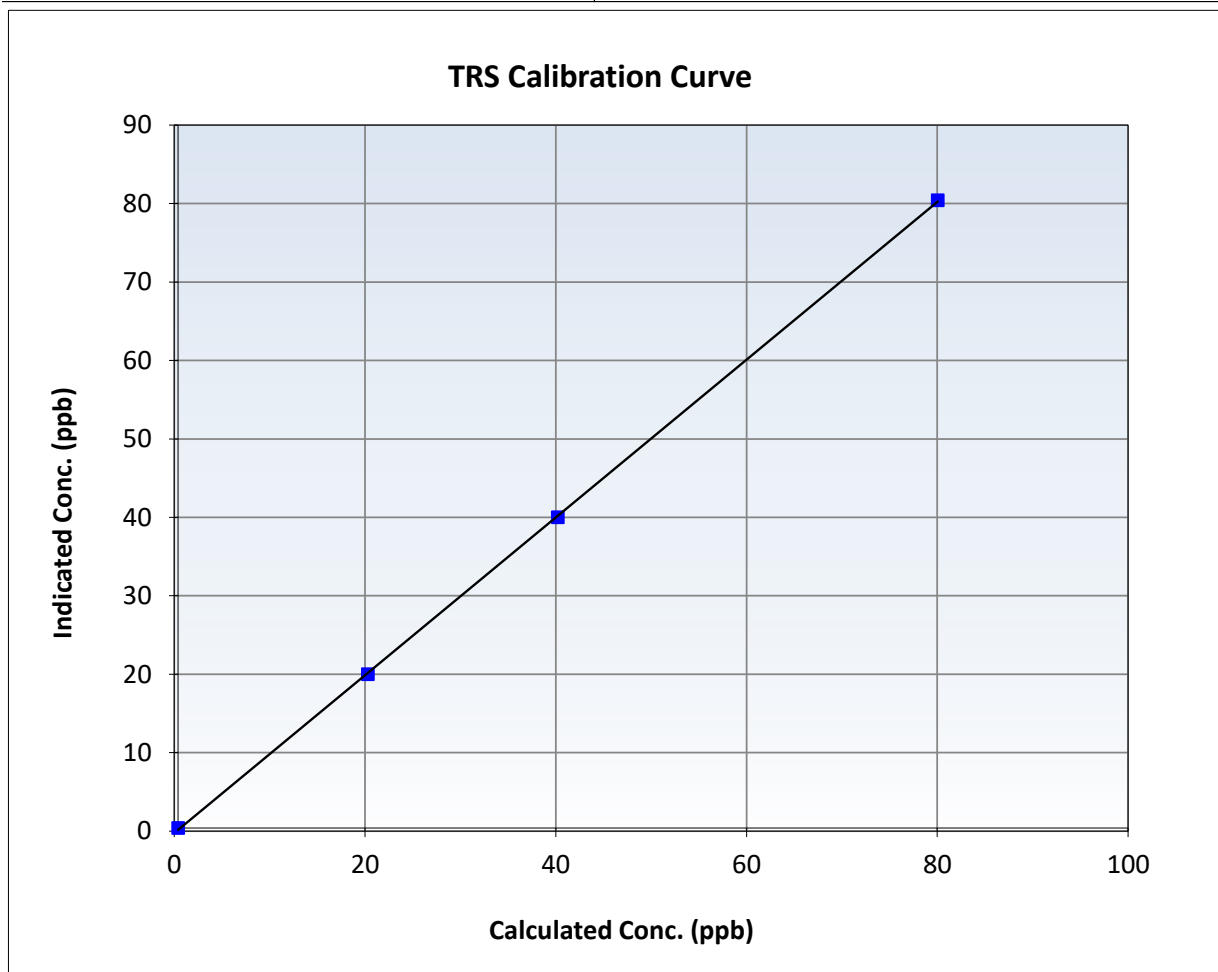
## TRS Calibration Summary

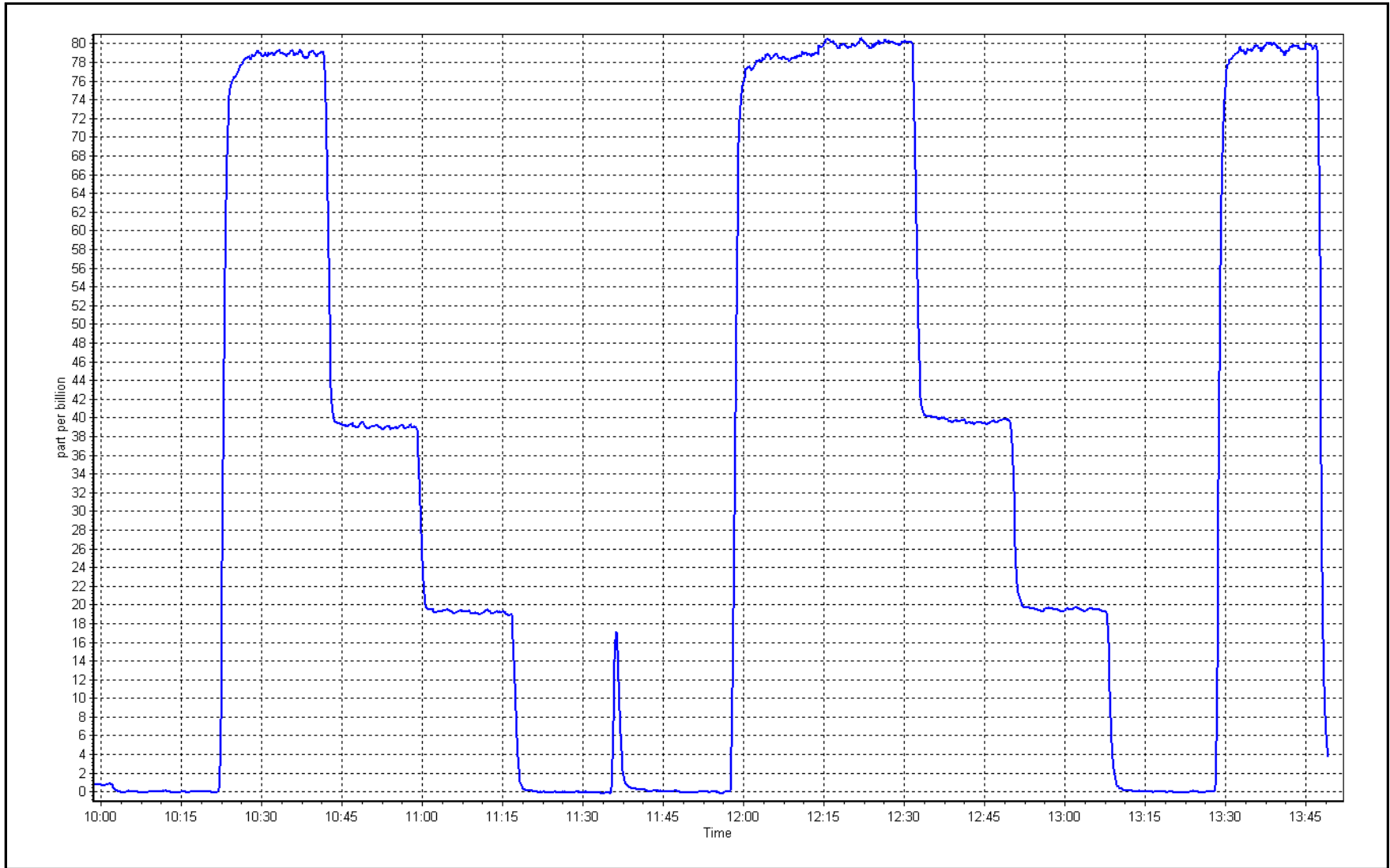
### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 15, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:59	End Time (MST):	13:46
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1180540017

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999956	$\geq 0.995$
79.6	80.0	0.9956	Slope	1.005556	$0.90 - 1.10$
39.8	39.6	1.0056	Intercept	-0.238407	$\pm 3$
19.9	19.6	1.0158			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Fort McKay South	Station number:	AMS 13
Calibration Date:	May 19, 2026	Last Cal Date:	April 17, 2026
Start time (MST):	9:50	End time (MST):	12:36
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC260812	Cal Gas Expiry Date:	Friday, December 29, 2028
CH4 Cal Gas Conc.	503.6 ppm	CH4 Equiv Conc.	1077.5 ppm
C3H8 Cal Gas Conc.	208.7 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	
Removed CH4 Conc.	503.6 ppm	CH4 Equiv Conc.	1077.5 ppm
Removed C3H8 Conc.	208.7 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	2657
Zero Air Gen model:	Teledyne API T701	Serial Number:	1118

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1181490018
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.81E-04	2.81E-04	NMHC SP Ratio:	4.48E-05	4.48E-05
CH4 Retention time:	16.20	16.20	NMHC Peak Area:	202496	202496
Zero Chromatogram:	OFF	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	---
As found High point	4921	79.1	17.05	17.00	1.003
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.00	Prev response	16.99	*% change	0.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	---
High point	4921	79.1	17.05	16.99	1.003
Mid point	4961	39.5	8.51	8.42	1.011
Low point	4980	19.8	4.27	4.15	1.029
As left zero	5000	0.0	0.00	0.00	---
As left span	4921	79.1	17.05	16.99	1.003
Average Correction Factor					1.014

Notes: Sample inlet filter was changed after as founds. No adjustment made.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	9.08	9.08	1.000
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.08	Prev response	9.07	*% change	0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	9.08	9.07	1.001
Mid point	4961	39.5	4.53	4.49	1.010
Low point	4980	19.8	2.27	2.22	1.026
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	9.08	9.06	1.002
Average Correction Factor					1.012

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	7.97	7.92	1.006
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.92	Prev response	7.92	*% change	0.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	7.97	7.92	1.006
Mid point	4961	39.5	3.98	3.94	1.010
Low point	4980	19.8	1.99	1.93	1.033
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	7.97	7.93	1.005
Average Correction Factor					1.017

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.000074	0.998698
THC Cal Offset:	-0.054766	-0.056763
CH <sub>4</sub> Cal Slope:	0.996541	0.996265
CH <sub>4</sub> Cal Offset:	-0.019988	-0.024777
NMHC Cal Slope:	1.002166	1.000783
NMHC Cal Offset:	-0.032777	-0.030784

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

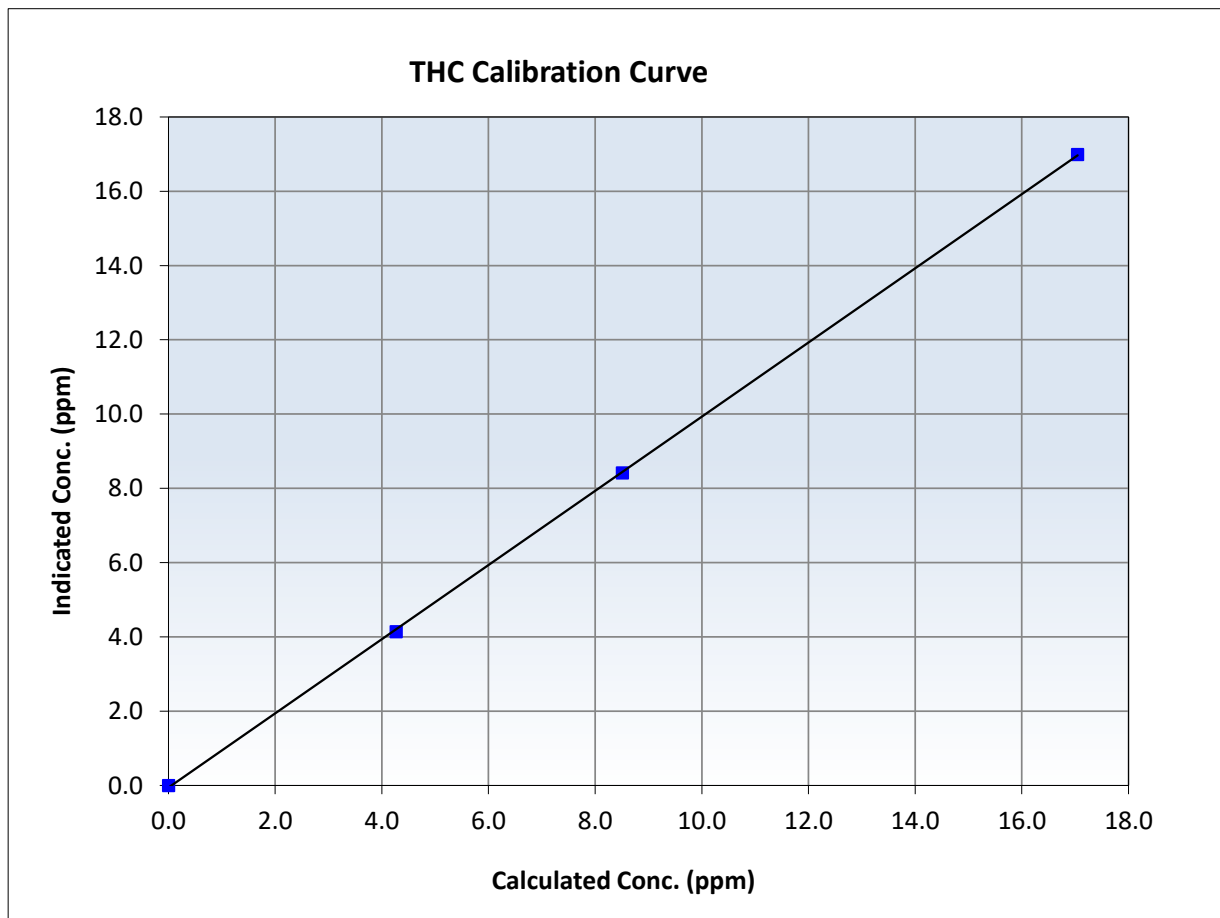
## THC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:50	End Time (MST):	12:36
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999949	<span style="color: red;">≥0.995</span>
17.05	16.99	1.0031	Slope	0.998698	<span style="color: red;">0.90 - 1.10</span>
8.51	8.42	1.0109	Intercept	-0.056763	<span style="color: red;">+/-0.5</span>
4.27	4.15	1.0295			





# Wood Buffalo Environmental Association

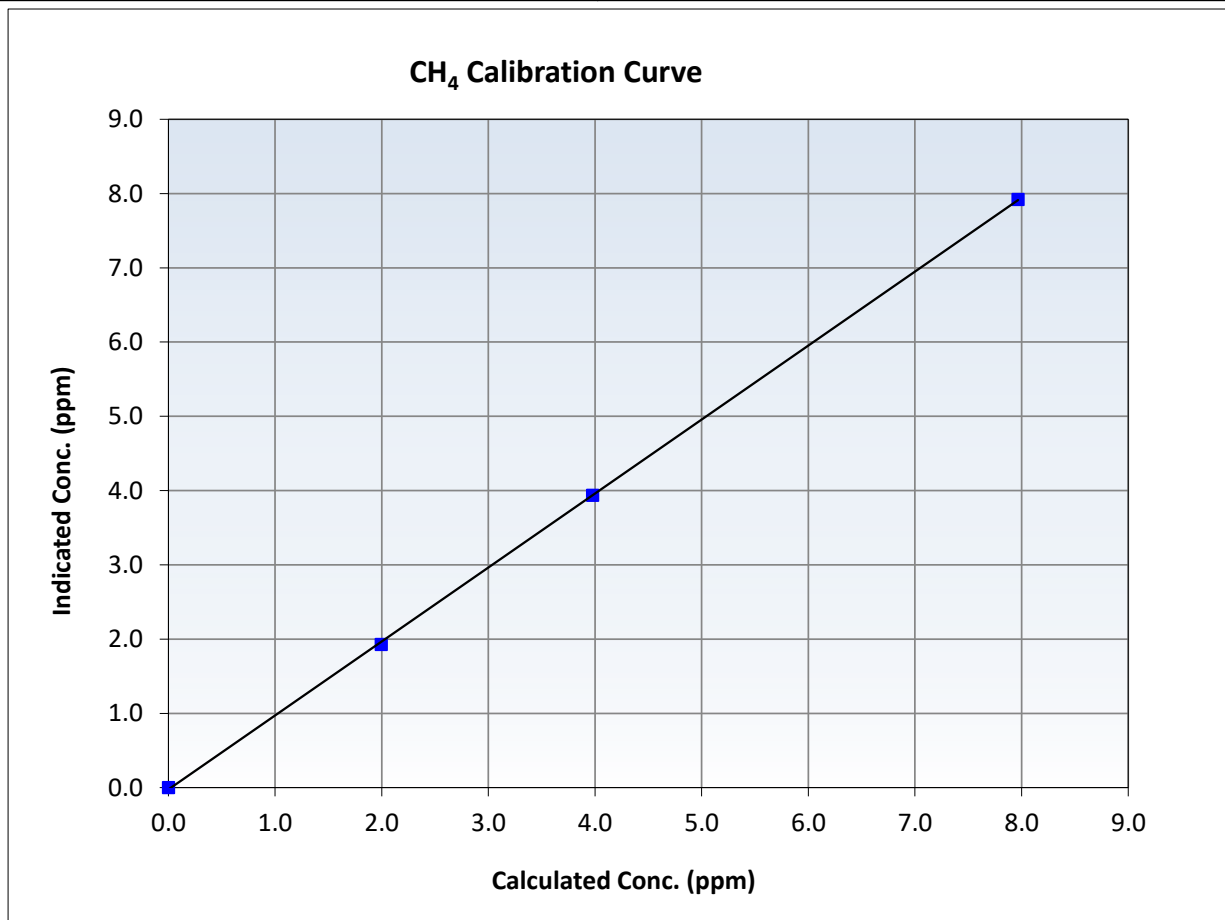
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:50	End Time (MST):	12:36
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999950	<i>≥0.995</i>
7.97	7.92	1.0058	Slope	0.996265	<i>0.90 - 1.10</i>
3.98	3.94	1.0104	Intercept	-0.024777	<i>+/-0.5</i>
1.99	1.93	1.0333			





# Wood Buffalo Environmental Association

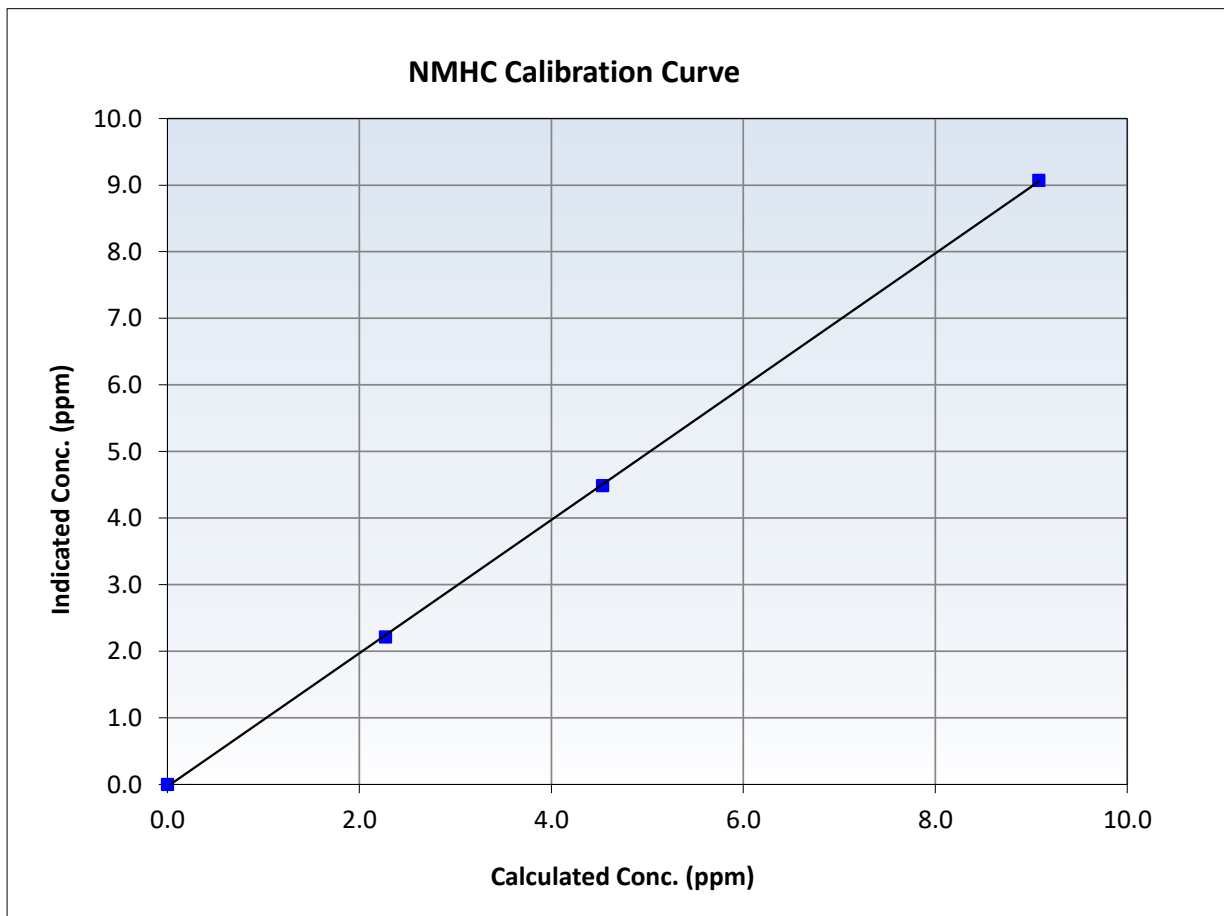
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:50	End Time (MST):	12:36
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

### Calibration Data

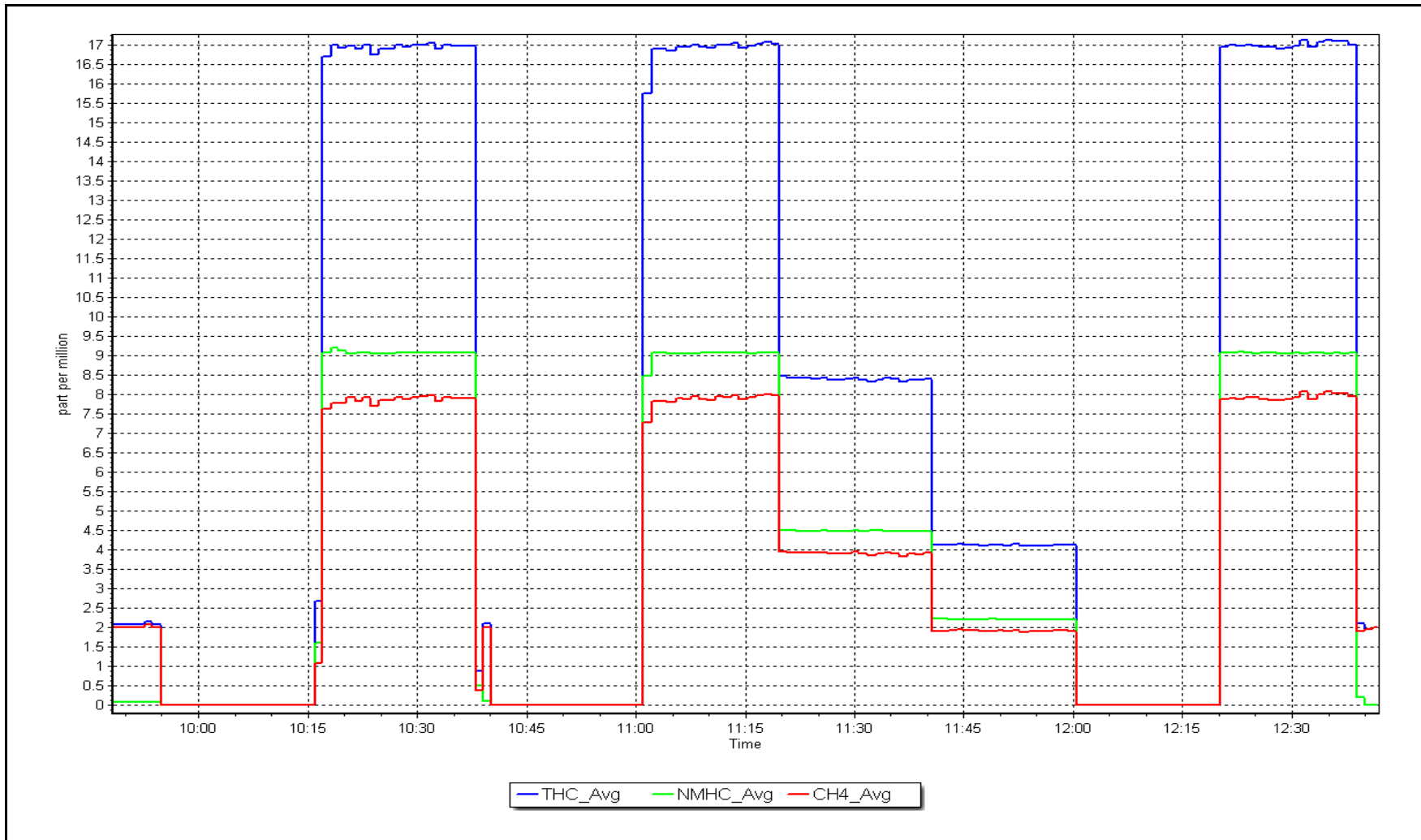
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999947	<i>≥0.995</i>
9.08	9.07	1.0008	Slope	1.000783	<i>0.90 - 1.10</i>
4.53	4.49	1.0102	Intercept	-0.030784	<i>+/-0.5</i>
2.27	2.22	1.0261			



NMHC Calibration Plot

Date: May 19, 2026

Location: Fort McKay South





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Fort McKay South	Station number:	AMS 13
Calibration Date:	May 31, 2026	Last Cal Date:	May 19, 2026
Start time (MST):	12:23	End time (MST):	15:46
Reason:	Maintenance		

### Calibration Standards

Gas Cert Reference:	CC260812	Cal Gas Expiry Date:	Friday, December 29, 2028
CH4 Cal Gas Conc.	503.6 ppm	CH4 Equiv Conc.	1077.5 ppm
C3H8 Cal Gas Conc.	208.7 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	
Removed CH4 Conc.	503.6 ppm	CH4 Equiv Conc.	1077.5 ppm
Removed C3H8 Conc.	208.7 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	2657
Zero Air Gen model:	Teledyne API T701	Serial Number:	1118

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1181490018
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.81E-04	2.94E-04	NMHC SP Ratio:	4.48E-05	4.50E-05
CH4 Retention time:	16.20	16.60	NMHC Peak Area:	202496	201770
Zero Chromatogram:	OFF	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	17.05	16.59	1.028
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.59	Prev response	16.97	*% change	-2.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	17.05	17.03	1.001
Mid point	4961	39.5	8.51	8.42	1.011
Low point	4980	19.8	4.27	4.13	1.033
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	17.05	16.81	1.014
Average Correction Factor					1.015

Notes: Span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	9.08	9.06	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.06	Prev response	9.06	*% change	0.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	9.08	9.06	1.002
Mid point	4961	39.5	4.53	4.48	1.012
Low point	4980	19.8	2.27	2.22	1.026
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	9.08	9.05	1.003
Average Correction Factor					1.013

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.1	7.97	7.53	1.059
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.53	Prev response	7.91	*% change	-5.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.1	7.97	7.97	1.000
Mid point	4961	39.5	3.98	3.94	1.010
Low point	4980	19.8	1.99	1.92	1.041
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.1	7.97	7.75	1.028
Average Correction Factor					1.017

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.998698	1.001113
THC Cal Offset:	-0.056763	-0.069764
CH <sub>4</sub> Cal Slope:	0.996265	1.003110
CH <sub>4</sub> Cal Offset:	-0.024777	-0.040379
NMHC Cal Slope:	1.000783	0.999613
NMHC Cal Offset:	-0.030784	-0.030387

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

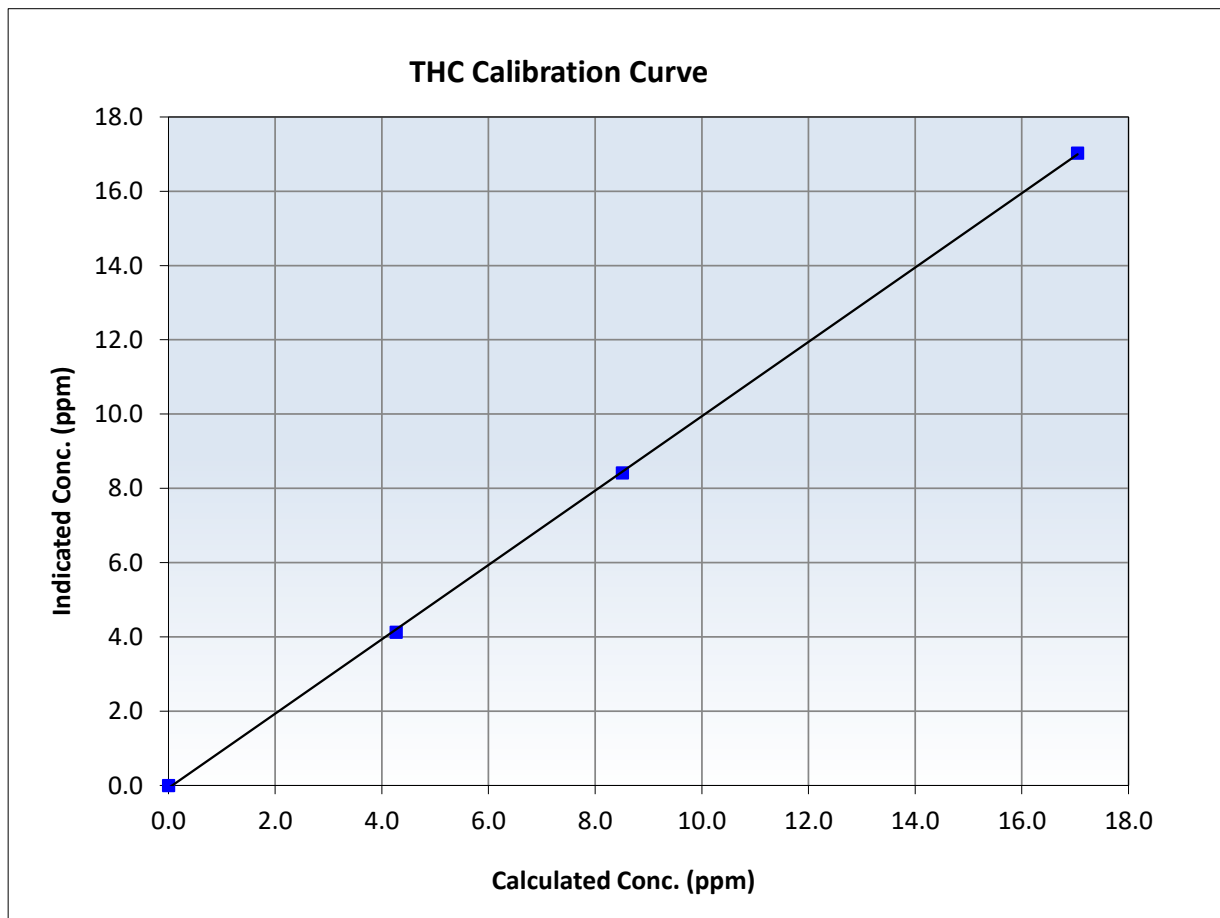
## THC Calibration Summary

### Station Information

Calibration Date:	May 31, 2026	Previous Calibration:	May 19, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	12:23	End Time (MST):	15:46
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999923	<i>≥0.995</i>
17.05	17.03	1.0010	Slope	1.001113	<i>0.90 - 1.10</i>
8.51	8.42	1.0109	Intercept	-0.069764	<i>+/-0.5</i>
4.27	4.13	1.0332			





# Wood Buffalo Environmental Association

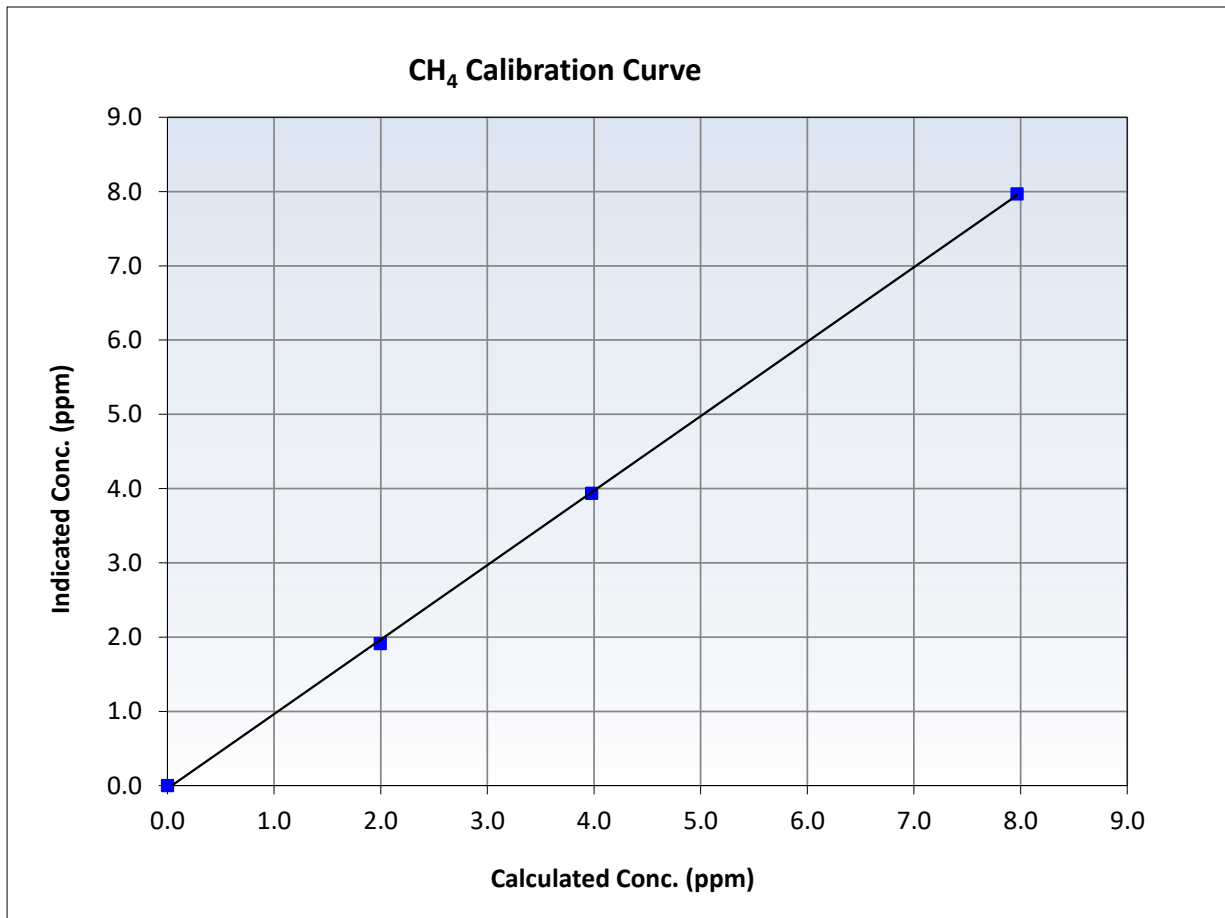
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 31, 2026	Previous Calibration:	May 19, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	12:23	End Time (MST):	15:46
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999881	<i>≥0.995</i>
7.97	7.97	0.9997	Slope	1.003110	<i>0.90 - 1.10</i>
3.98	3.94	1.0104	Intercept	-0.040379	<i>+/-0.5</i>
1.99	1.92	1.0414			





# Wood Buffalo Environmental Association

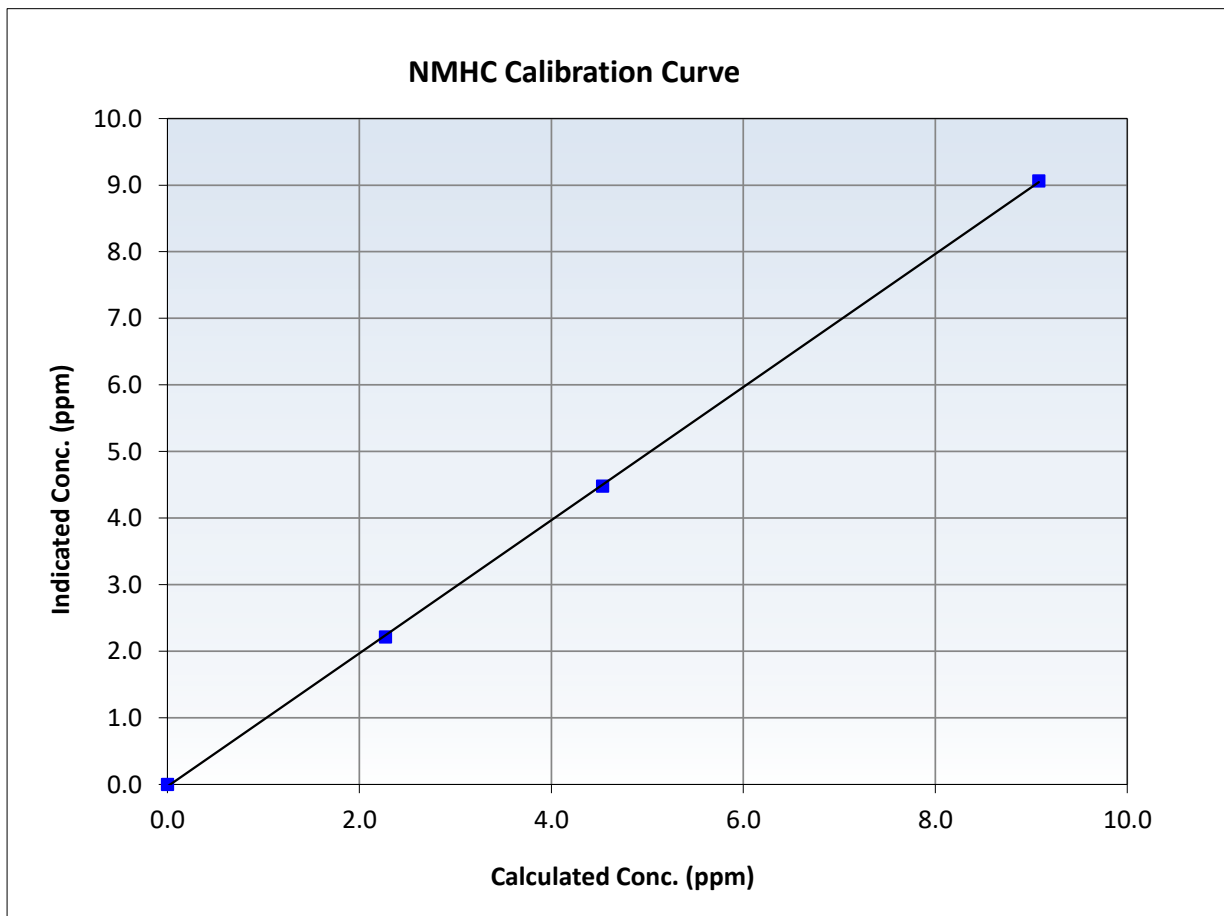
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 31, 2026	Previous Calibration:	May 19, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	12:23	End Time (MST):	15:46
Analyzer make:	Thermo 55i	Analyzer serial #:	1181490018

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999947	<i>≥0.995</i>
9.08	9.06	1.0018	Slope	0.999613	<i>0.90 - 1.10</i>
4.53	4.48	1.0122	Intercept	-0.030387	<i>+/-0.5</i>
2.27	2.22	1.0256			



NMHC Calibration Plot

Date: May 31, 2026

Location: Fort McKay South





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Fort McKay South  
 Station number: AMS 13  
 Calibration Date: May 5, 2026  
 Last Cal Date: April 8, 2026  
 Start time (MST): 9:19  
 End time (MST): 13:28  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: T2UP1RP  
 NOX Cal Gas Conc: 48.25 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 48.25 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700P  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: November 17, 2026  
 NO Cal Gas Conc: 47.88 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 47.88 ppm  
 NO gas Diff:  
 Serial Number: 2657  
 Serial Number: 1118

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.4	0.0	-0.3	----	----
AF High point	4917	83.5	805.7	799.5	6.2	845.0	841.4	3.6	0.9530	0.9502
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 805.4 ppb	NO = 800.4 ppb				<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = 4.7%	
Baseline Corr 1st pt	NO <sub>x</sub> = 845.4 ppb	NO = 841.4 ppb				<u>As Found Statistics</u>		*Percent Change	NO = 4.9%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42iQ  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12124313137

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.002299	1.000012
NO <sub>x</sub> Cal Offset:	-2.153379	-3.371649
NO Cal Slope:	1.005068	1.001048
NO Cal Offset:	-3.211646	-4.029581
NO <sub>2</sub> Cal Slope:	0.997405	0.999935
NO <sub>2</sub> Cal Offset:	1.187951	-1.922142

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.992	0.941	NO bkgnd or offset:	0.8	0.8
NOX coeff or slope:	0.997	1.002	NOX bkgnd or offset:	1.2	1.2
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	190.8	193.2

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.3	----	----
High point	4917	83.5	805.7	799.5	6.2	804.5	799.1	5.3	1.0015	1.0005
Mid point	4958	41.8	403.4	400.3	3.1	396.7	392.5	4.1	1.0169	1.0199
Low point	4979	20.9	201.7	200.1	1.5	196.3	193.6	2.7	1.0275	1.0338
As left zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.3	----	----
As left span	4917	83.5	805.7	401.4	404.3	791.2	401.4	389.8	1.0183	1.0000
Average Correction Factor									1.0153	1.0181

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.3	----	----
High GPT point	791.2	398.8	398.6	397.3	1.0032	99.7%
Mid GPT point	791.2	589.3	208.1	206.0	1.0101	99.0%
Low GPT point	791.2	687.0	110.4	106.3	1.0384	96.3%
Average Correction Factor					1.0172	98.3%

Notes:

Sample inlet filter was changed after as founds. Adjusted span only.

Calibration Performed By:

Jan Castro



# Wood Buffalo Environmental Association

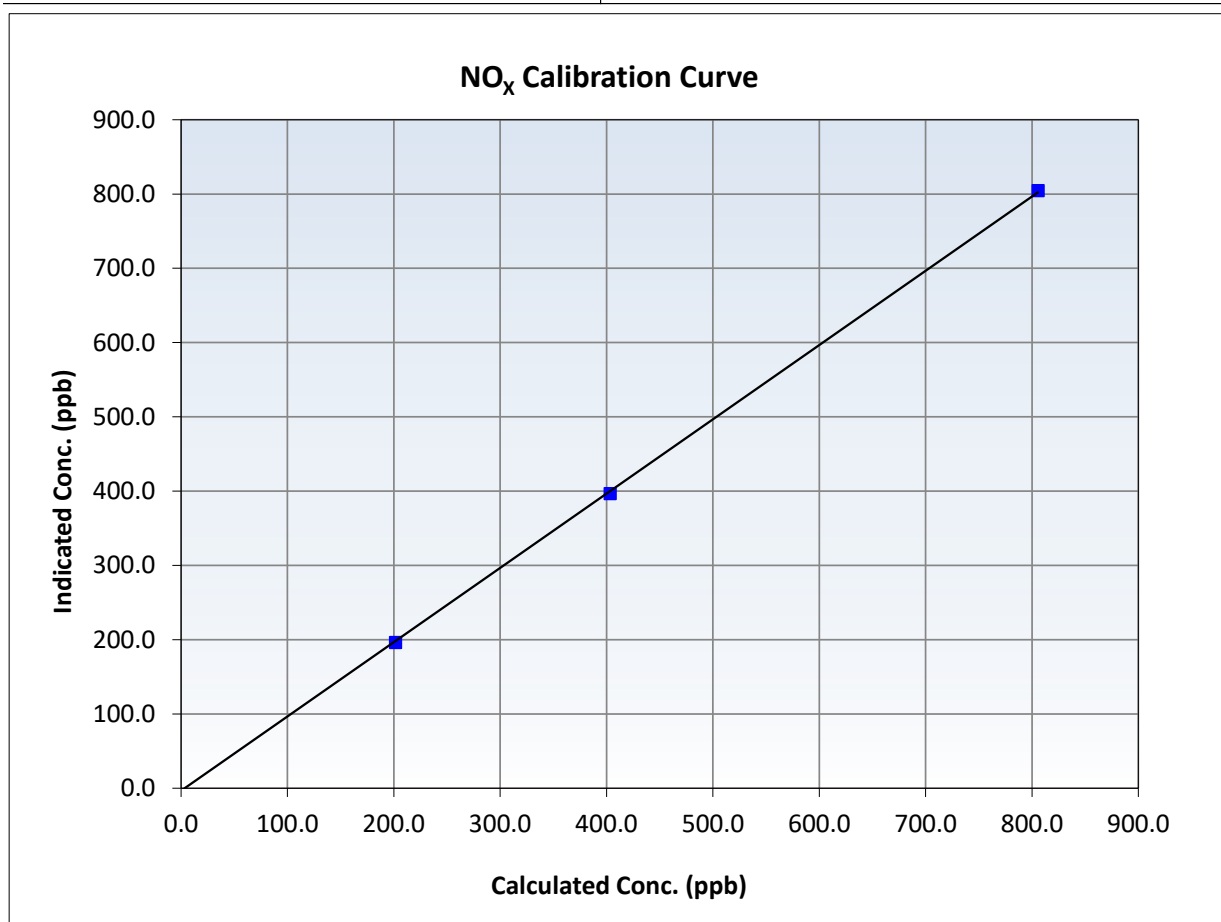
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:19	End Time (MST):	13:28
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12124313137
			14:18

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999916	<i>≥0.995</i>
805.7	804.5	1.0015	Slope	1.000012	<i>0.90 - 1.10</i>
403.4	396.7	1.0169	Intercept	-3.371649	<i>+/-20</i>
201.7	196.3	1.0275			





# Wood Buffalo Environmental Association

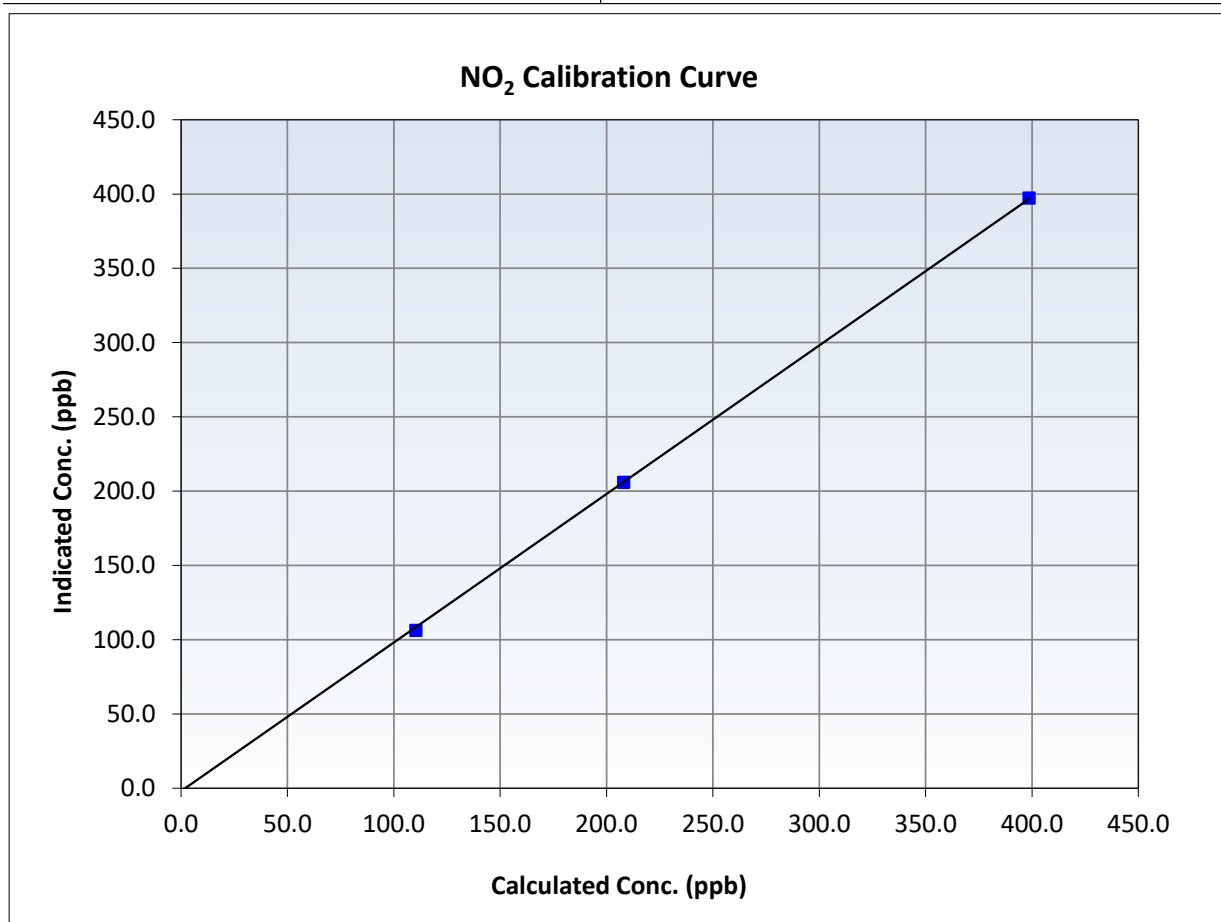
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:19	End Time (MST):	13:28
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12124313137
			14:18

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.3	----	Correlation Coefficient	0.999910	<i>≥0.995</i>
398.6	397.3	1.0032	Slope	0.999935	<i>0.90 - 1.10</i>
208.1	206.0	1.0101	Intercept	-1.922142	<i>+/-20</i>
110.4	106.3	1.0384			





# Wood Buffalo Environmental Association

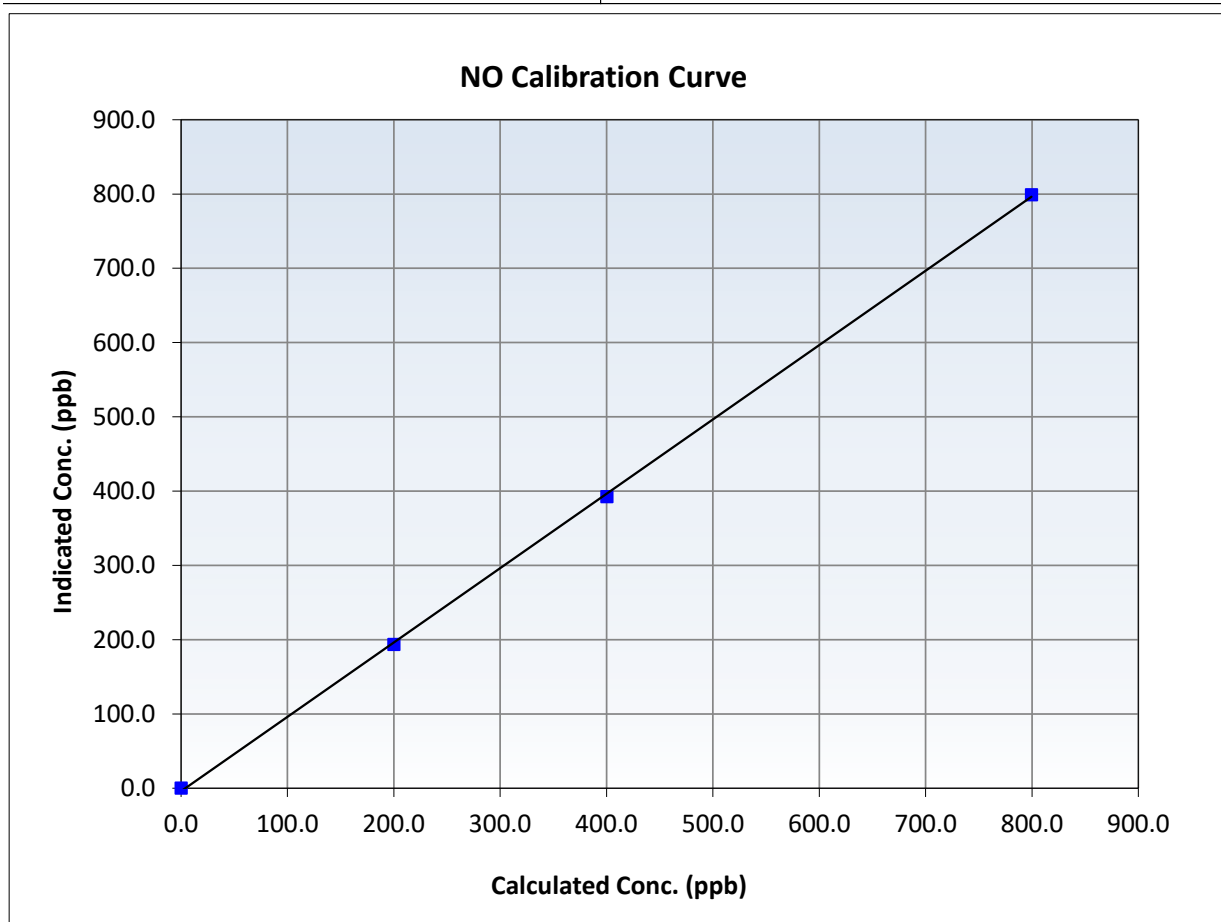
## NO Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 8, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:19	End Time (MST):	13:28
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12124313137
			14:18

### Calibration Data

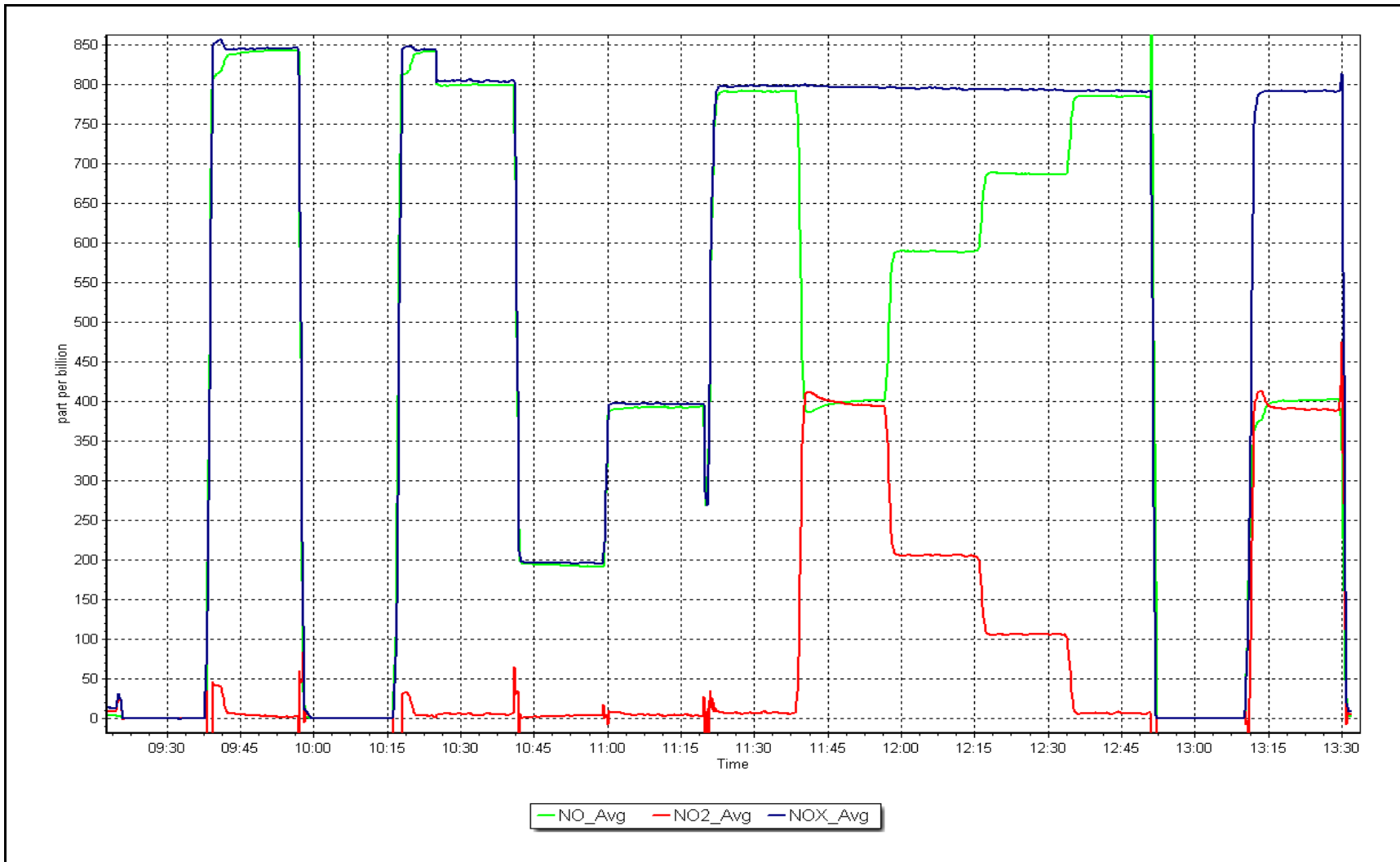
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999858	<i>≥0.995</i>
799.5	799.1	1.0005	Slope	1.001048	<i>0.90 - 1.10</i>
400.3	392.5	1.0199	Intercept	-4.029581	<i>+/-20</i>
200.1	193.6	1.0338			



NO<sub>x</sub> Calibration Plot

Date: May 5, 2026

Location: Fort McKay South





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Fort McKay South  
 Station number: AMS 13  
 Calibration Date: May 14, 2026  
 Last Cal Date: May 5, 2026  
 Start time (MST): 8:38  
 End time (MST): 13:54  
 Reason: Maintenance

### Calibration Standards

NO Gas Cylinder #: T2UP1RP  
 NOX Cal Gas Conc: 48.25 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 48.25 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700P  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: November 17, 2026  
 NO Cal Gas Conc: 47.88 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 47.88 ppm  
 NO gas Diff:  
 Serial Number: 2657  
 Serial Number: 1118

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.4	-0.1	-0.3	----	----
AF High point	4917	83.5	805.7	799.5	6.2	922.0	915.0	7.1	0.8735	0.8737
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO <sub>x</sub> = 802.3 ppb	NO = 796.3 ppb			* = > +/-5% change initiates investigation	*Percent Change	NO <sub>x</sub> = 13.0%
Baseline Corr 1st pt	NO <sub>x</sub> = 922.4 ppb	NO = 915.1 ppb			<u>As Found Statistics</u>	*Percent Change	NO = 13.0%
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb			As found NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb			As found NO r <sup>2</sup> :	NO SI:	NO Int:
					As found NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42iQ  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 12124313137

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.000012	0.999871
NO <sub>x</sub> Cal Offset:	-3.371649	-3.071819
NO Cal Slope:	1.001048	1.001849
NO Cal Offset:	-4.029581	-3.610028
NO <sub>2</sub> Cal Slope:	0.999935	0.997752
NO <sub>2</sub> Cal Offset:	-1.922142	-0.645657

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.941	0.836	NO bkgnd or offset:	0.8	0.6
NOX coeff or slope:	1.002	1.000	NOX bkgnd or offset:	1.2	0.8
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	193.2	187.7

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.1	0.1	0.0	----	----
High point	4917	83.5	805.7	799.5	6.2	804.5	799.9	4.5	1.0015	0.9995
Mid point	4958	41.8	403.4	400.3	3.1	397.5	393.6	3.8	1.0148	1.0170
Low point	4979	20.9	201.7	200.1	1.5	196.2	194.5	1.8	1.0280	1.0290
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.2	-0.1	----	----
As left span	4917	83.5	805.7	388.8	416.9	796.5	388.8	407.7	1.0115	1.0000
Average Correction Factor									1.0148	1.0152

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	796.8	390.1	412.9	412.0	1.0021	99.8%
Mid GPT point	796.8	589.9	213.1	210.6	1.0118	98.8%
Low GPT point	796.8	693.7	109.3	108.4	1.0081	99.2%
Average Correction Factor					1.0073	99.3%

Notes:

Sample inlet filter was changed after as founds. Adjusted zero and span.

Calibration Performed By:

Jan Castro



# Wood Buffalo Environmental Association

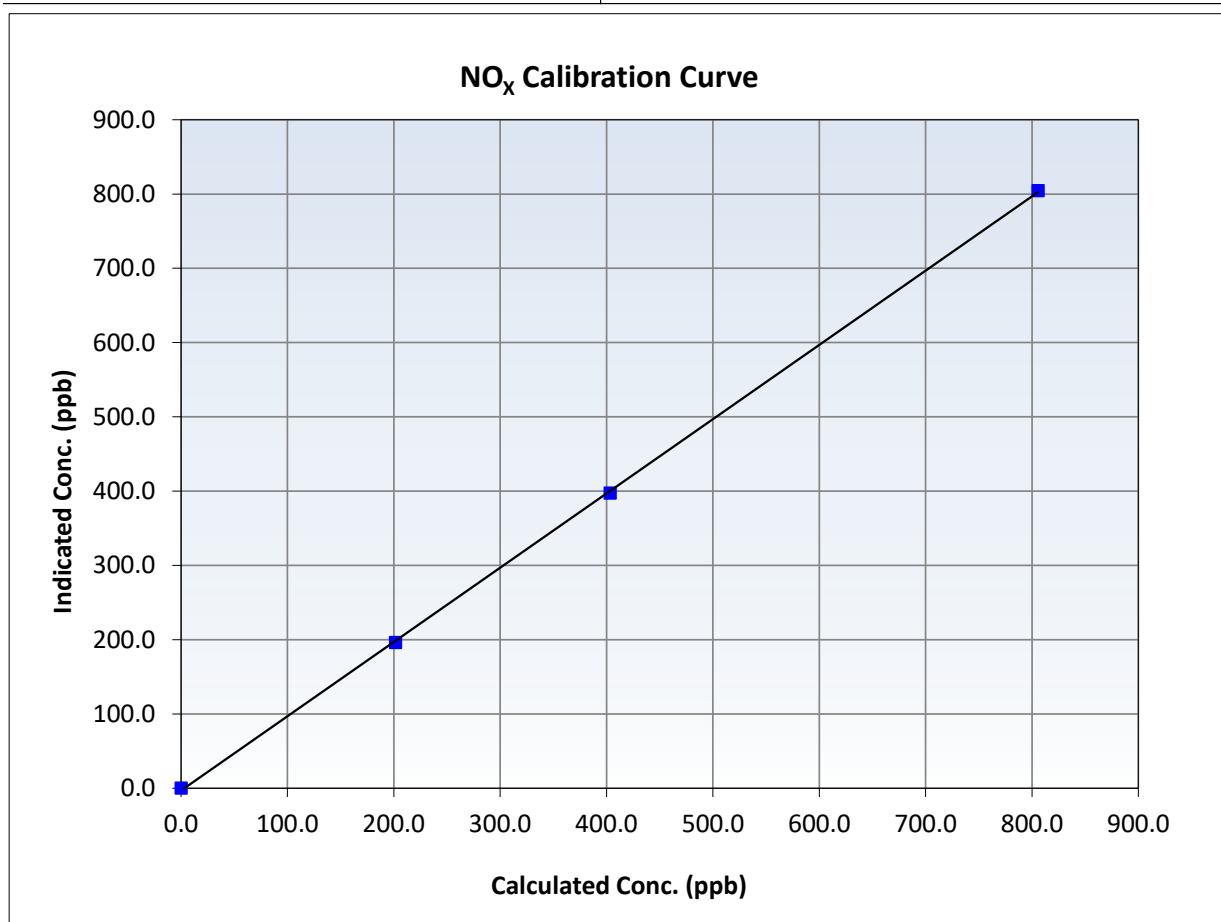
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	8:38	End Time (MST):	13:54
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12124313137
			14:18

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999923	<i>≥0.995</i>
805.7	804.5	1.0015	Slope	0.999871	<i>0.90 - 1.10</i>
403.4	397.5	1.0148	Intercept	-3.071819	<i>+/-20</i>
201.7	196.2	1.0280			





# Wood Buffalo Environmental Association

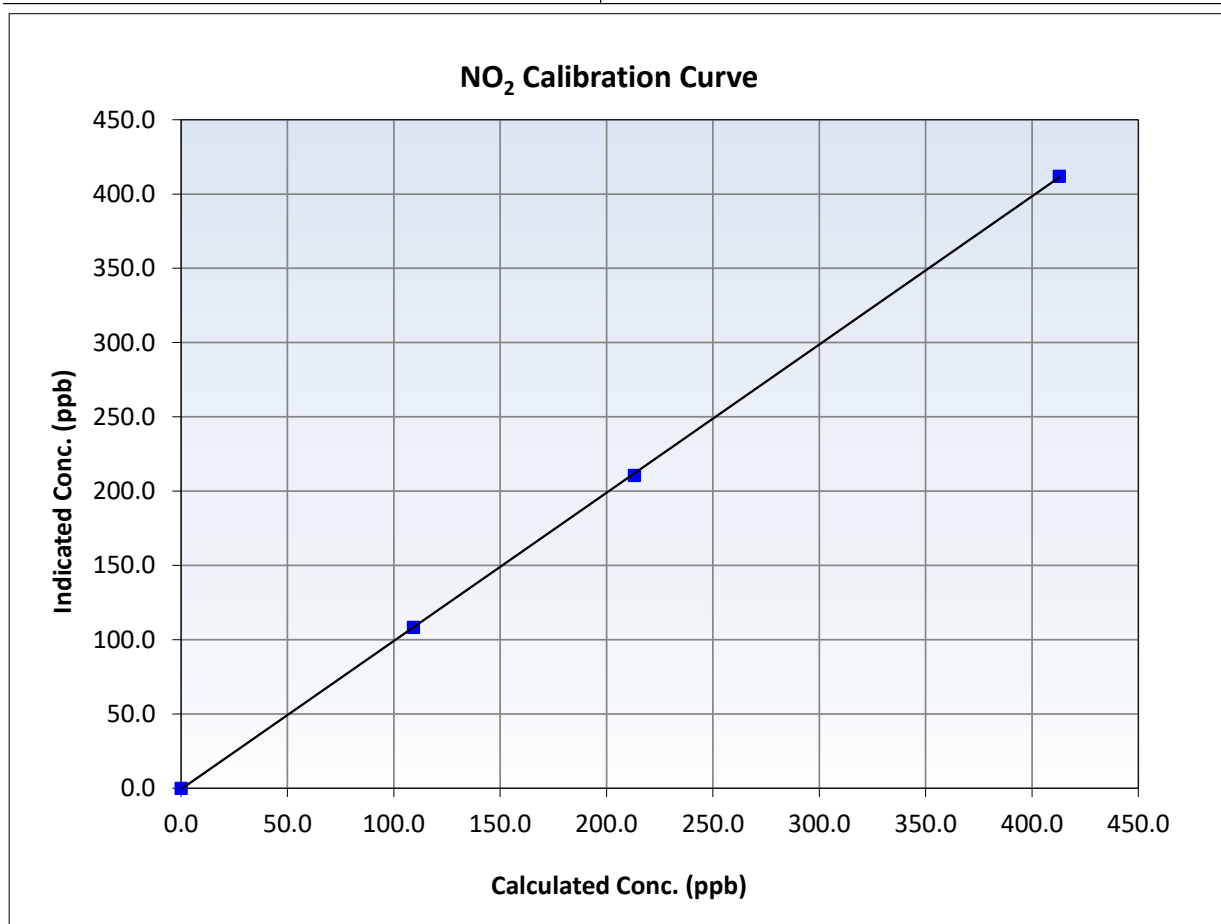
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	8:38	End Time (MST):	13:54
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12124313137
			14:18

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999970	<i>≥0.995</i>
412.9	412.0	1.0021	Slope	0.997752	<i>0.90 - 1.10</i>
213.1	210.6	1.0118	Intercept	-0.645657	<i>+/-20</i>
109.3	108.4	1.0081			





# Wood Buffalo Environmental Association

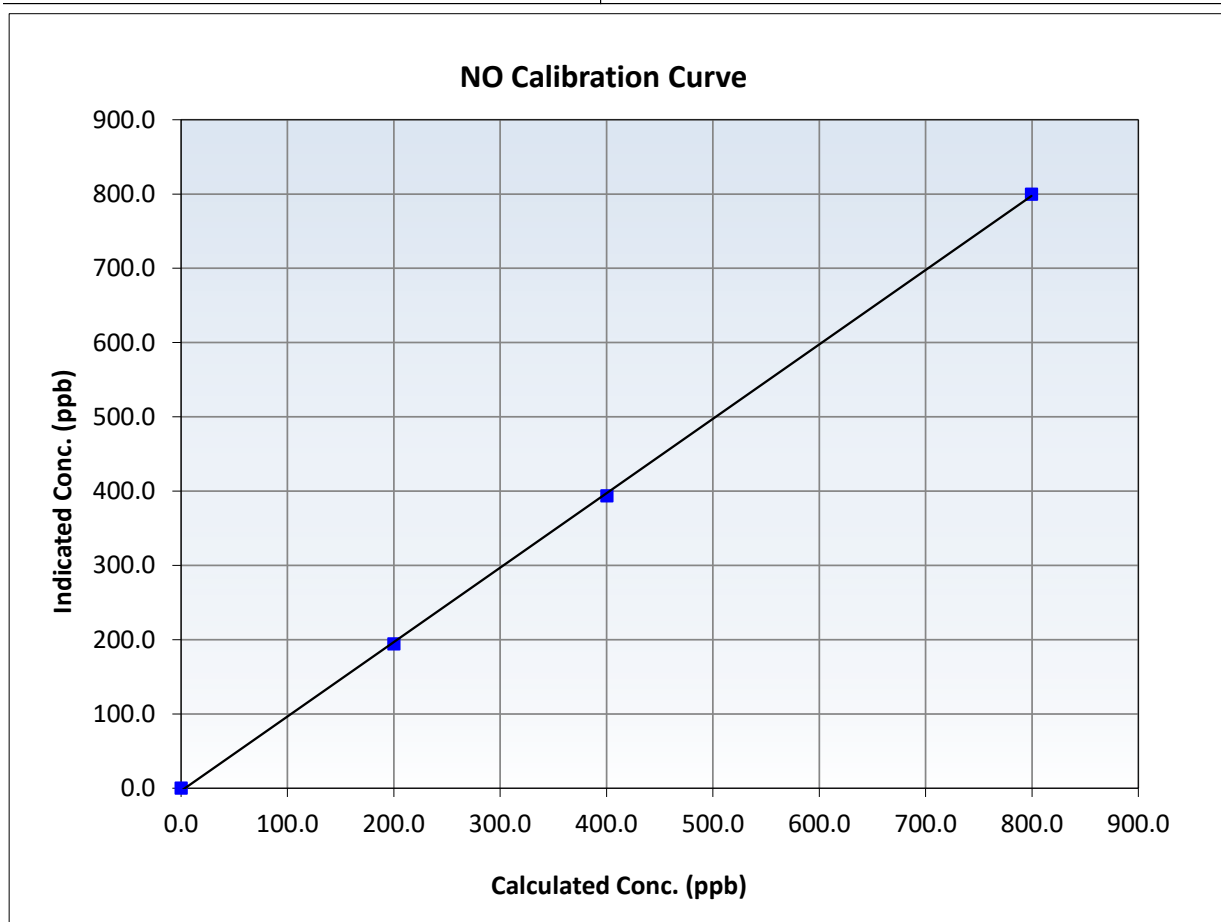
## NO Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	8:38	End Time (MST):	13:54
Analyzer make:	Thermo 42iQ	Analyzer serial #:	12124313137
			14:18

### Calibration Data

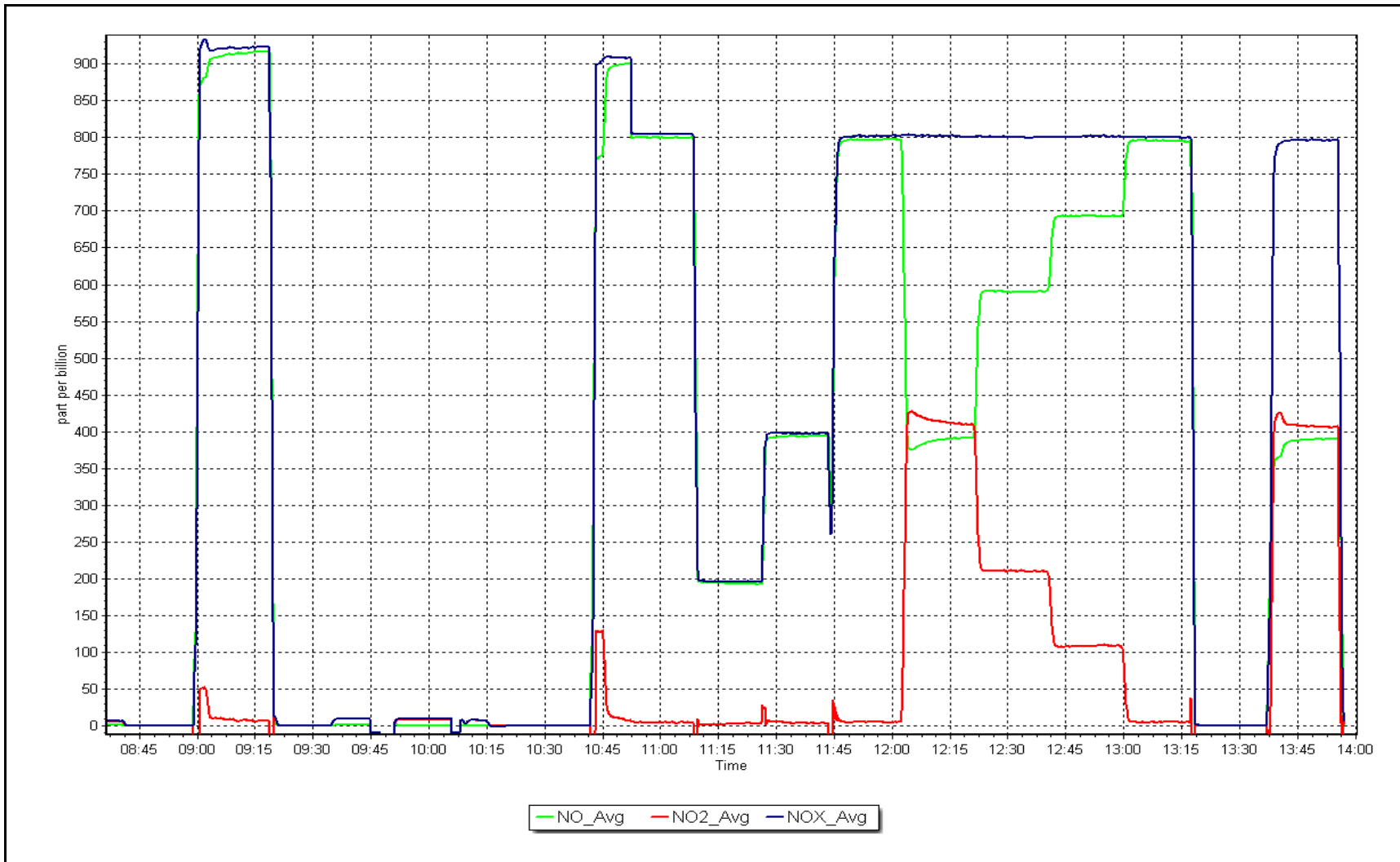
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999885	<i>≥0.995</i>
799.5	799.9	0.9995	Slope	1.001849	<i>0.90 - 1.10</i>
400.3	393.6	1.0170	Intercept	-3.610028	<i>+/-20</i>
200.1	194.5	1.0290			



NO<sub>x</sub> Calibration Plot

Date: May 14, 2026

Location: Fort McKay South





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Fort McKay South	Station number:	AMS 13
Calibration Date:	May 12, 2026	Last Cal Date:	April 10, 2026
Start time (MST):	9:36	End time (MST):	12:10
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	2657
Calibrator Make/Model:	Teledyne API T700	Serial Number:	1118
ZAG Make/Model:	Teledyne API 701		

### Analyzer Information

Analyzer make:	Thermo 49i	Analyzer serial #:	1426262595
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998943	1.005971	Backgd or Offset:	0.2	0.2
Calibration intercept:	0.660000	1.080000	Coeff or Slope:	1.656	1.656

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	0.3	----
As found High point	5000	1000.4	400.0	402.0	0.996
As found Mid point					
As found Low point					
Baseline Corr As found:	401.7	Previous response	400.2	*% change	0.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	0.4	----
High point	5000	995.1	400.0	403.0	0.993
Mid point	5000	810.8	200.0	203.0	0.985
Low point	5000	693.1	100.0	102.1	0.979
As left zero	5000	800.0	0.0	0.1	----
As left span	5000	989.8	400.0	404.7	0.988
Average Correction Factor					<b>0.986</b>

Notes: Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

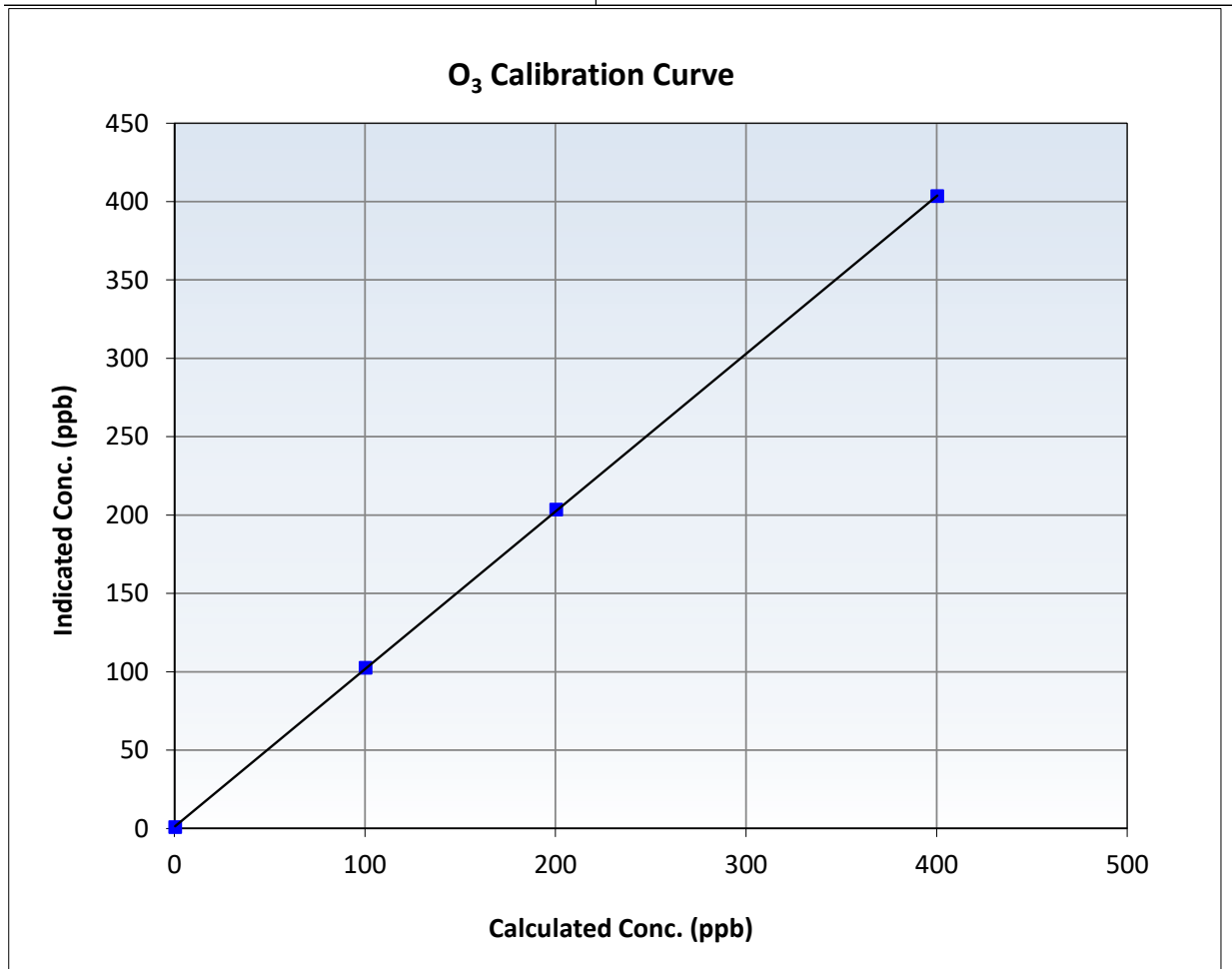
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 10, 2026
Station Name:	Fort McKay South	Station Number:	AMS 13
Start Time (MST):	9:36	End Time (MST):	12:10
Analyzer make:	Thermo 49i	Analyzer serial #:	1426262595

### Calibration Data

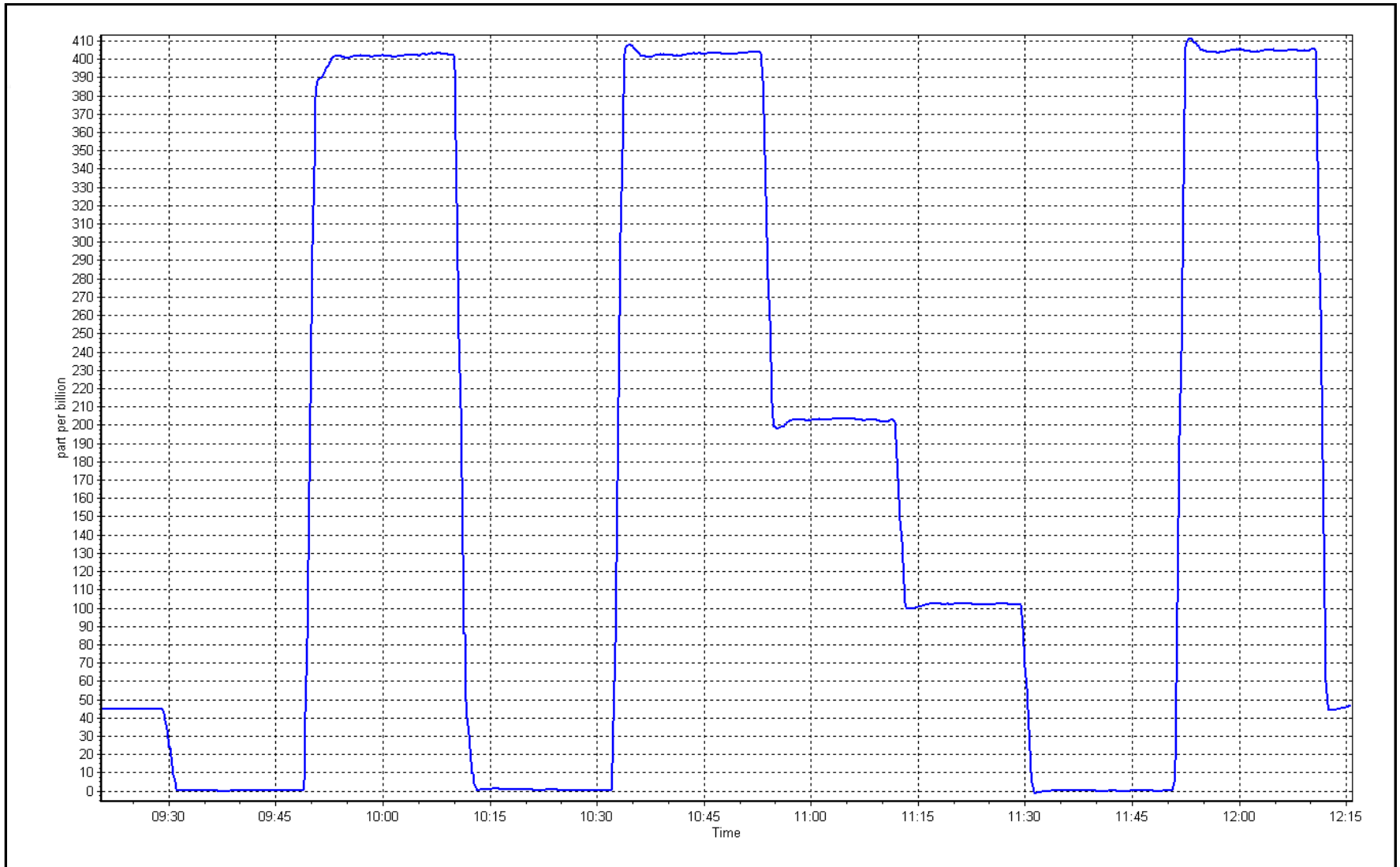
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.4	----	Correlation Coefficient	0.999984	<span style="color: red;">≥0.995</span>
400.0	403.0	0.9926	Slope	1.005971	<span style="color: red;">0.90 - 1.10</span>
200.0	203.0	0.9852	Intercept	1.080000	<span style="color: red;">+/- 5</span>
100.0	102.1	0.9794			



O<sub>3</sub> Calibration Plot

Date: May 12, 2026

Location: Fort McKay South





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Fort McKay South Station number: AMS 13  
 Calibration Date: May 15, 2026 Last Cal Date: April 1, 2026  
 Start time (MST): 12:05 End time (MST): 12:20

Analyzer Make: Teledyne API T640 S/N: 1335  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388754  
 Temp/RH standard: Alicat FP-25 S/N: 388754

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	8.10	6.80	8.10	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	730.90	729.55	730.90	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM vol)	5.00	4.99	5.00	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	41	----	41	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	4.70	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: January 30, 2027  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: April 1, 2026  
 Date Disposable Filter Changed: April 1, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: June 2, 2025  
 Date RH/T Sensor Cleaned: June 2, 2025

Notes: Verified flow, pressure, temperature and pump power. No adjustment made. Leak check passed.

Calibration by: Jan Castro



# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Fort McKay South Station number: AMS 13  
 Calibration Date: May 31, 2026 Last Cal Date: May 15, 2026  
 Start time (MST): 12:50 End time (MST): 15:34

Analyzer Make: Teledyne API T640 S/N: 1335  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388748  
 Temp/RH standard: Alicat FP-25 S/N: 388748

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	14.20	13.60	14.20	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	736.00	732.60	736.00	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM vol)	4.96	4.92	4.96	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	41	----	41	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	8.60	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: January 30, 2027  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	N/A	11.00	11.00	<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: April 1, 2026  
 Date Disposable Filter Changed: April 1, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.00 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: June 2, 2025  
 Date RH/T Sensor Cleaned: June 2, 2025

Notes: Temp, pressure and flow checked. Leak check done. Quarterly calibration done.

Calibration by: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

## Wind Speed/Direction Calibration Report

### Station Information

Station Name:	Fort McKay South	Station Number:	AMS 13
Calibration Date:	May 28, 2026	Prev Cal Date:	June 2, 2025
Start Time (MST):	10:29	End Time (MST):	11:42
Tower Height (m):	10.0	Reason:	Routine

### Wind Speed Calibration

Sensor make/model:	Met One 010C-1	Serial Number:	N10022
WS Calibrator:	MetOne 053	Serial Number:	CA 05230

Shaft RPM (Hz)	Calculated Speed (K/hr) (Cv)	Indicated Speed (K/hr) (Iv)	% Error <i>Limit = +/- 1.5%</i>
0	0.0	0.0	---
200	20.2	20.1	-0.3%
400	39.4	39.4	0.1%
600	58.6	58.5	-0.1%
800	77.8	77.8	0.1%

	<u>Start</u>	<u>Finish</u>	<u>Limits</u>
Correl Coeff (r <sup>2</sup> )	0.999998	0.999999	<i>≥0.9995</i>
Calculated slope	0.999451	0.999473	<i>0.98 - 1.02</i>
Calculated intercept	-0.052868	0.026227	<i>+/- 2</i>

### Wind Direction Calibration

Sensor make/model:	Met One 020C-1	Serial Number:	W16101
As Found Declination (deg east of True North):	<u>14</u>	As Left Declination (deg east of True North):	<u>13</u>
Solar noon (MST):	13:23	Calc Declination*:	13.21 Degrees
WD Calibrator:	Met One 040	<i>* - calculated declination as per NOAA website</i>	

Physical Direction (Degrees) (Cv)	Indicated Direction (Degrees) (Iv)	% Error (based on 360° FS) <i>Limit = +/- 1%</i>
10	8.4	-0.4%
90	87.0	-0.8%
180	177.6	-0.7%
270	267.4	-0.7%
350	347.2	-0.8%

	<u>Start</u>	<u>Finish</u>	<u>Limits</u>
Correl Coeff (r <sup>2</sup> )	0.999992	0.999995	<i>≥0.9995</i>
Calculated slope	1.006814	1.002265	<i>0.97 - 1.03</i>
Calculated intercept	-2.233319	2.077964	<i>+/- 5</i>

Notes: All points within limits. Bearing inspected and still good.

Calibration Performed By: Jan Castro



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS14  
ANZAC  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Anzac	Station number:	AMS 14
Calibration Date:	May 14, 2026	Last Cal Date:	April 14, 2026
Start time (MST):	5:38	End time (MST):	8:09
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.32	ppm	Cal Gas Exp Date:	October 9, 2032
Cal Gas Cylinder #:	CC462030			
Removed Cal Gas Conc:	50.32	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	API T700		Serial Number:	3812
Zero Air Gen Model:	API T701H		Serial Number:	357

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	0710321322
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005307	0.997094	Backgd or Offset:	27.6	27.6
Calibration intercept:	-0.211002	0.190626	Coeff or Slope:	1.141	1.141

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.6	----
As found High point	4920	79.5	800.2	799.3	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	798.7	Previous response	804.2	*% change	-0.7%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.7	----
High point	4920	79.5	800.2	798.2	1.002
Mid point	4960	39.8	400.6	399.6	1.002
Low point	4980	19.9	200.3	199.2	1.005
As left zero	5000	0.0	0.0	0.7	----
As left span	4920	79.5	800.2	798.5	1.002
Average Correction Factor:					1.003

Notes: No Maintenance or adjustments done.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

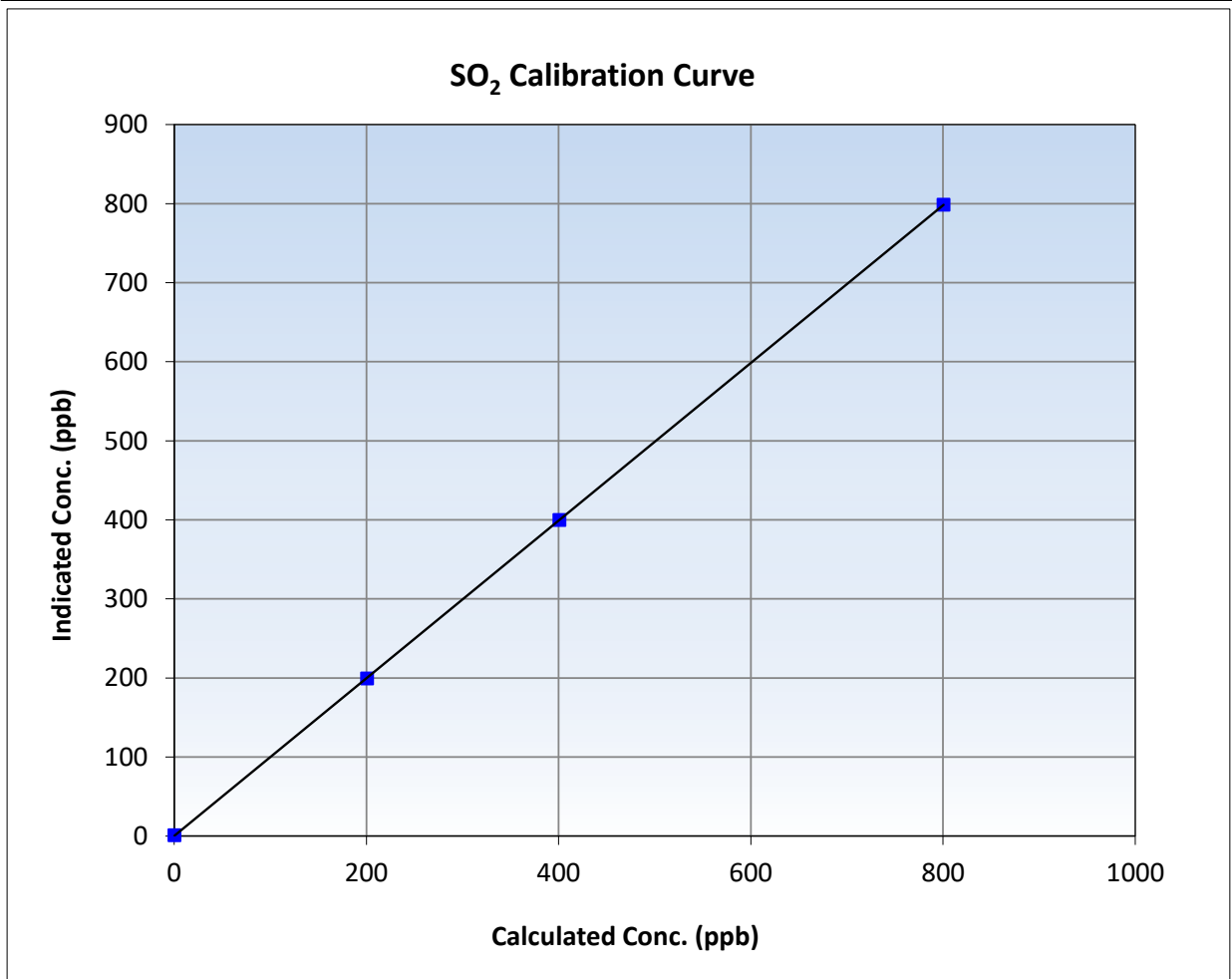
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	5:38	End Time (MST):	8:09
Analyzer make:	Thermo 43i	Analyzer serial #:	0710321322

### Calibration Data

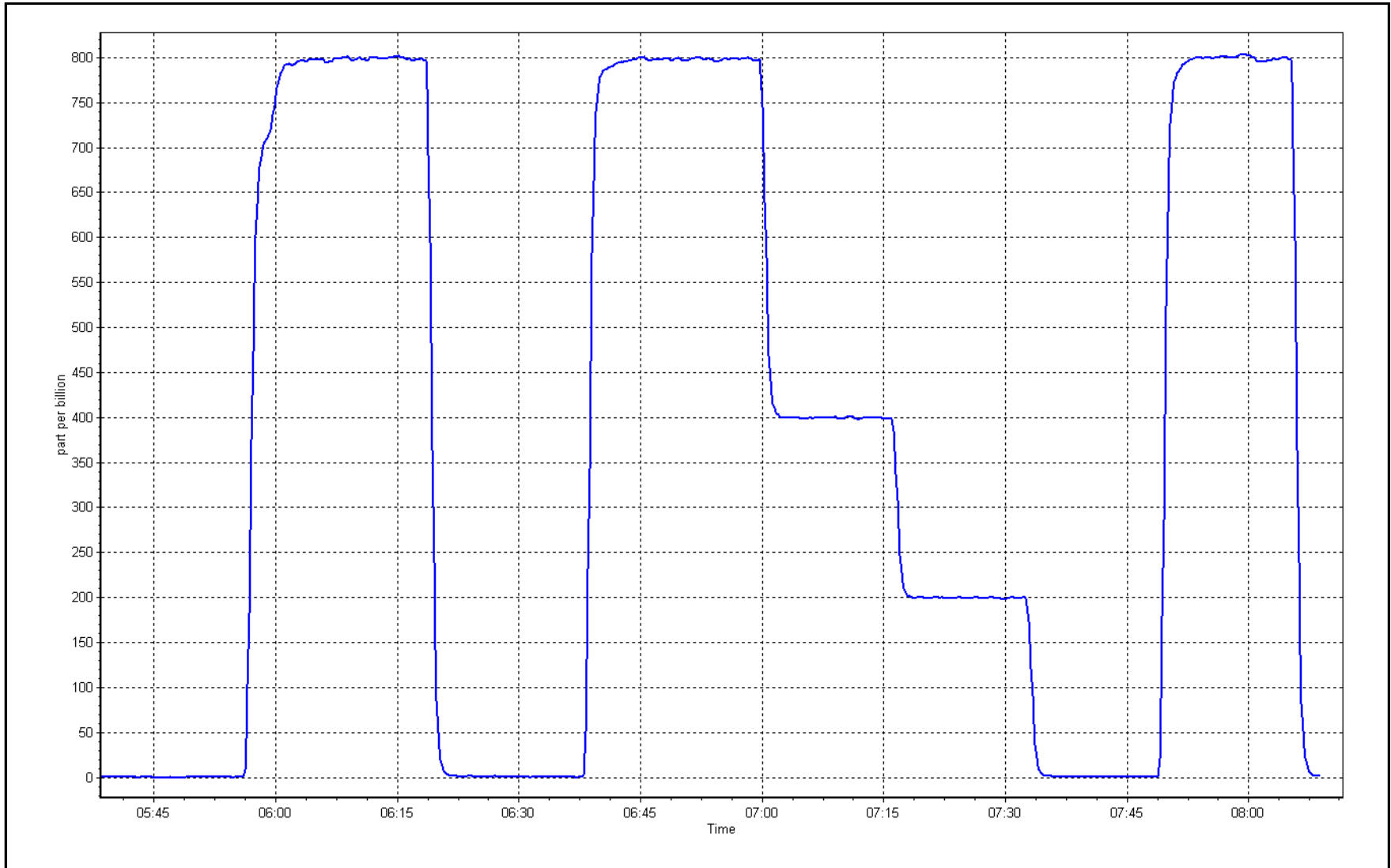
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.7	----	Correlation Coefficient	0.999998	<b>≥0.995</b>
800.2	798.2	1.0025	Slope	0.997094	<b>0.90 - 1.10</b>
400.6	399.6	1.0024	Intercept	0.190626	<b>+/-30</b>
200.3	199.2	1.0054			



SO2 Calibration Plot

Date: May 14, 2026

Location: Anzac





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Anzac	Station number:	AMS 14
Calibration Date:	May 22, 2026	Last Cal Date:	April 22, 2026
Start time (MST):	11:05	End time (MST):	15:27
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.05	ppm	Cal Gas Exp Date:	September 22, 2028
Cal Gas Cylinder #:	DT0021903			
Removed Cal Gas Conc:	5.05	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Make/Model:	API T700		Serial Number:	3812
ZAG Make/Model:	API 701H		Serial Number:	357

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153582
Converter make:	CD Nova CDN-101	Converter serial #:	461
Analyzer Range	0 - 100 ppb	Converter Temp:	800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.005283	0.997854	Backgd or Offset:	2.20	2.20
Calibration intercept:	-0.081602	-0.021596	Coeff or Slope:	0.948	0.948

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4921	79.2	80.0	80.1	0.997
As found Mid point	4960	39.6	40.0	39.7	1.005
As found Low point	4980	19.8	20.0	19.7	1.010
New cylinder response					
Baseline Corr As found:	80.2	Prev response:	80.33	*% change:	-0.2%
Baseline Corr 2nd AF pt:	39.8	AF Slope:	1.003283	AF Intercept:	-0.261595
Baseline Corr 3rd AF pt:	19.8	AF Correlation:	0.999978	<i>* = &gt; +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4921	79.2	80.0	79.8	1.002
Mid point	4960	39.6	40.0	39.9	1.002
Low point	4980	19.8	20.0	19.9	1.005
As left zero	5000	0.0	0.0	0.1	----
As left span	4921	79.2	80.0	78.5	1.019
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	28-May-25			Ave Corr Factor	1.003
Date of last converter efficiency test:	September 16, 2025			103.4% efficiency	

Notes: Changed the inlet filter after the as founds. SOx scrubber check was completed after the calibrator zero. No adjustments made.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

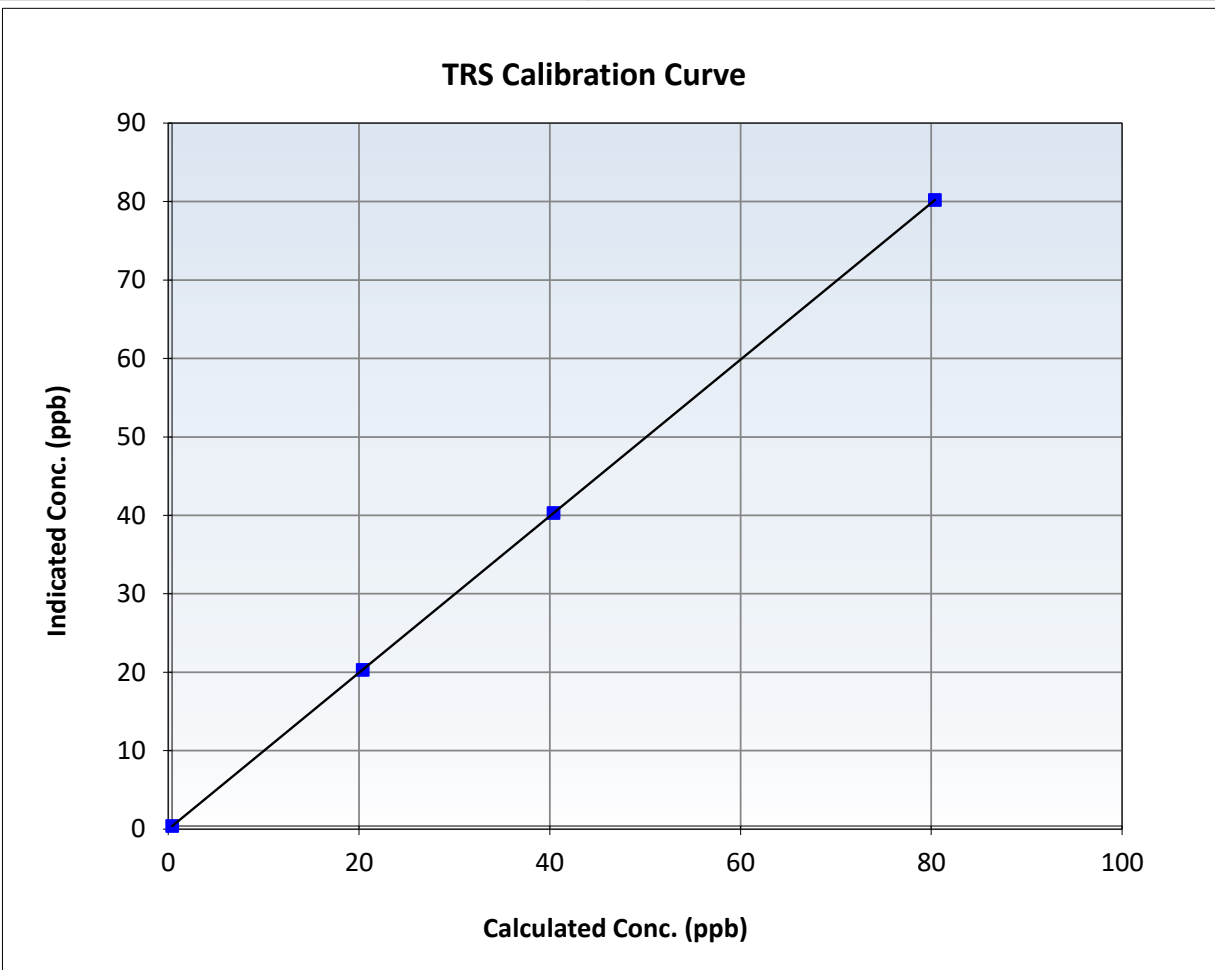
## TRS Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 22, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	11:05	End Time (MST):	15:27
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153582

### Calibration Data

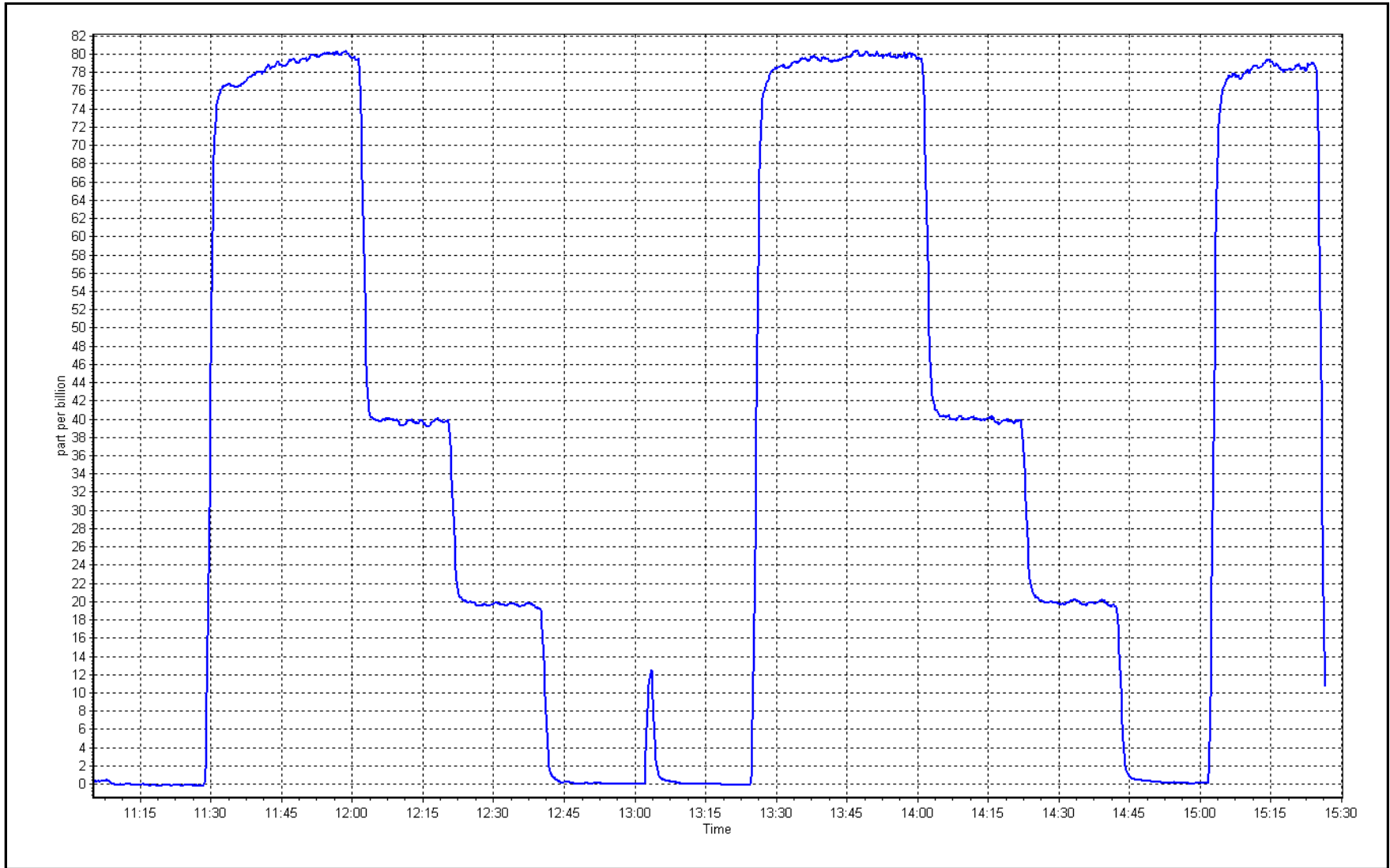
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000	$\geq 0.995$
80.0	79.8	1.0024	Slope	0.997854	$0.90 - 1.10$
40.0	39.9	1.0025	Intercept	-0.021596	$\pm 3$
20.0	19.9	1.0050			



TRS Calibration Plot

Date: May 22, 2026

Location: Anzac





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Anzac	Station number:	AMS 14
Calibration Date:	May 14, 2026	Last Cal Date:	April 14, 2026
Start time (MST):	5:38	End time (MST):	8:08
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC462030	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	505.3 ppm	CH4 Equiv Conc.	1068.8 ppm
C3H8 Cal Gas Conc.	204.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	505.3 ppm	CH4 Equiv Conc.	1068.8 ppm
Removed C3H8 Conc.	204.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	3812
Zero Air Gen model:	API 701H	Serial Number:	357

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1331259521
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	3.77E-04	3.88E-04	NMHC SP Ratio:	6.12E-05	6.23E-05
CH4 Retention time:	16.6	16.6	NMHC Peak Area:	146372	143908
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	17.00	16.66	1.020
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.66	Prev response	16.91	*% change	-1.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.5	17.00	16.95	1.003
Mid point	4960	39.8	8.51	8.41	1.012
Low point	4980	19.9	4.25	4.18	1.017
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	17.00	16.97	1.001
Average Correction Factor					1.011

Notes: No Maintenance done. Span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	8.96	8.83	1.015
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.83	Prev response	8.92	*% change	-1.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.5	8.96	8.93	1.003
Mid point	4960	39.8	4.49	4.45	1.008
Low point	4980	19.9	2.24	2.22	1.012
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.96	8.94	1.002
Average Correction Factor					1.008

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	8.04	7.83	1.026
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.83	Prev response	7.99	*% change	-2.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	79.5	8.04	8.02	1.002
Mid point	4960	39.8	4.02	3.96	1.016
Low point	4980	19.9	2.01	1.97	1.022
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.04	8.03	1.001
Average Correction Factor					1.014

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.997889	0.998091
THC Cal Offset:	-0.044999	-0.040003
CH <sub>4</sub> Cal Slope:	0.998705	0.999033
CH <sub>4</sub> Cal Offset:	-0.030086	-0.027488
NMHC Cal Slope:	0.997399	0.997463
NMHC Cal Offset:	-0.015113	-0.013115

Calibration Performed By:           Melissa Lemay



# Wood Buffalo Environmental Association

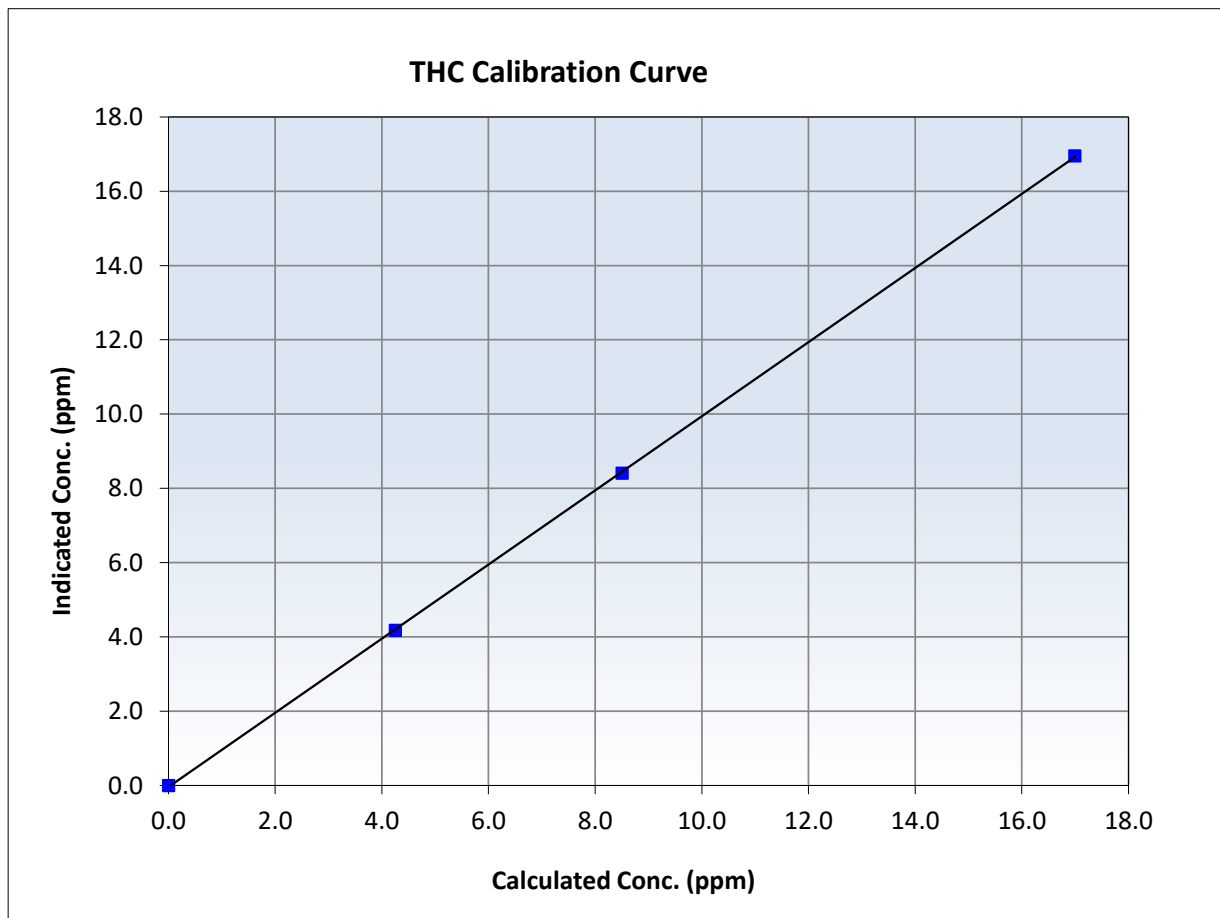
## THC Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	5:38	End Time (MST):	8:08
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259521

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999969	<span style="color: red;">≥0.995</span>
17.00	16.95	1.0026	Slope	0.998091	<span style="color: red;">0.90 - 1.10</span>
8.51	8.41	1.0120	Intercept	-0.040003	<span style="color: red;">+/-0.5</span>
4.25	4.18	1.0172			





# Wood Buffalo Environmental Association

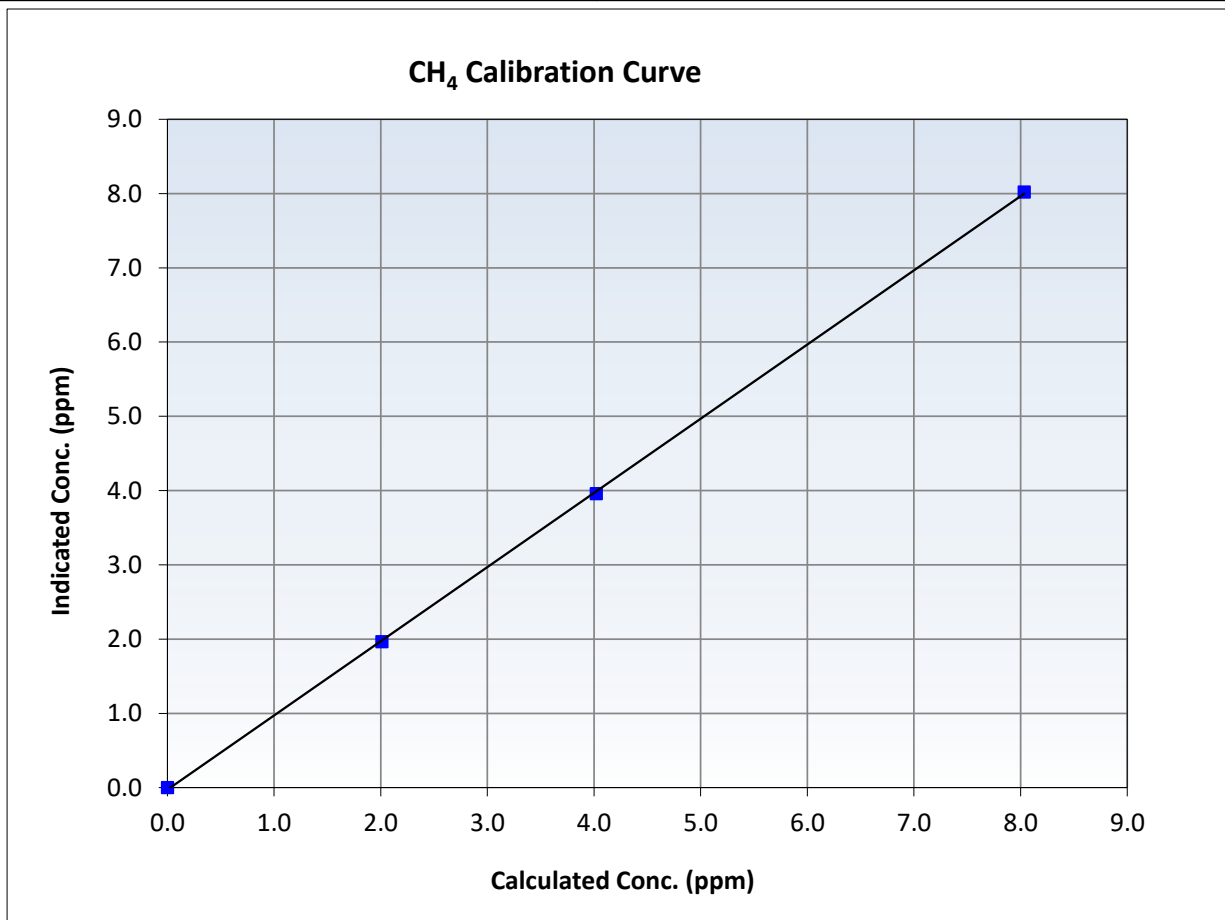
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	5:38	End Time (MST):	8:08
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259521

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999930	≥0.995
8.04	8.02	1.0019	Slope	0.999033	0.90 - 1.10
4.02	3.96	1.0163	Intercept	-0.027488	±0.5
2.01	1.97	1.0224			





# Wood Buffalo Environmental Association

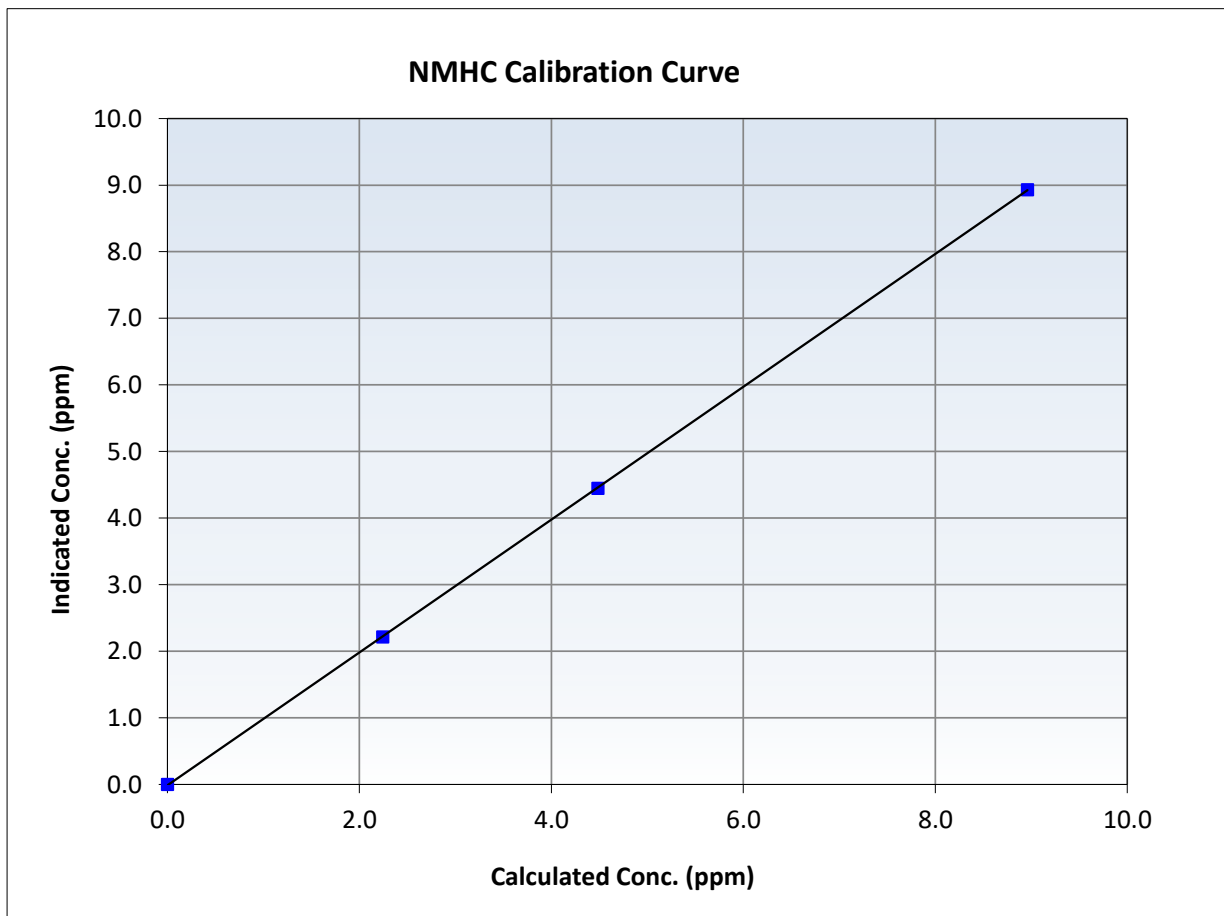
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 14, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	5:38	End Time (MST):	8:08
Analyzer make:	Thermo 55i	Analyzer serial #:	1331259521

### Calibration Data

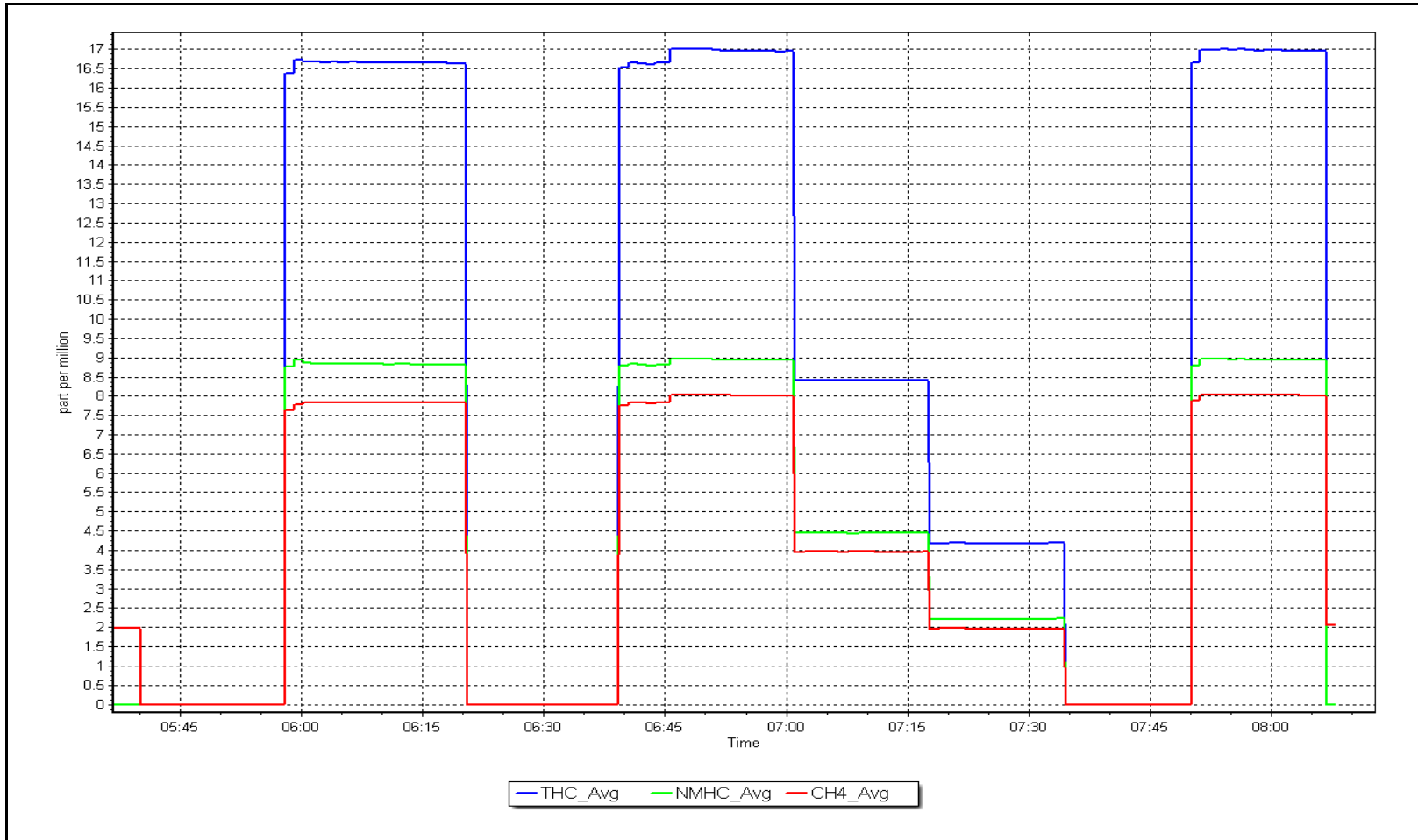
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999989	<i>≥0.995</i>
8.96	8.93	1.0030	Slope	0.997463	<i>0.90 - 1.10</i>
4.49	4.45	1.0084	Intercept	-0.013115	<i>+/-0.5</i>
2.24	2.22	1.0125			



NMHC Calibration Plot

Date: May 14, 2026

Location: Anzac





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Anzac	Station number:	AMS 14
Calibration Date:	May 28, 2026	Last Cal Date:	May 14, 2026
Start time (MST):	5:44	End time (MST):	7:07
Reason:	Cylinder Change		

### Calibration Standards

Gas Cert Reference:	CC462030	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	505.3 ppm	CH4 Equiv Conc.	1068.8 ppm
C3H8 Cal Gas Conc.	204.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	505.3 ppm	CH4 Equiv Conc.	1068.8 ppm
Removed C3H8 Conc.	204.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	3812
Zero Air Gen model:	API 701H	Serial Number:	357

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1331259521
THC Range: 0 - 20 ppm	NMHC/CH4 Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	3.77E-04	3.88E-04	NMHC SP Ratio:	6.12E-05	6.23E-05
CH4 Retention time:	16.6	16.6	NMHC Peak Area:	146372	143908
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	17.00	17.12	0.993
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.12	Prev response	16.91	*% change	1.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	17.00	17.18	0.990
Average Correction Factor					0.990

Notes: Hydrogen Cylinder Change.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	8.96	9.02	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.02	Prev response	8.92	*% change	1.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.96	9.04	0.992
Average Correction Factor					

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	79.5	8.04	8.10	0.992
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.10	Prev response	7.99	*% change	1.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	79.5	8.04	8.14	0.987
Average Correction Factor					

### Calibration Statistics

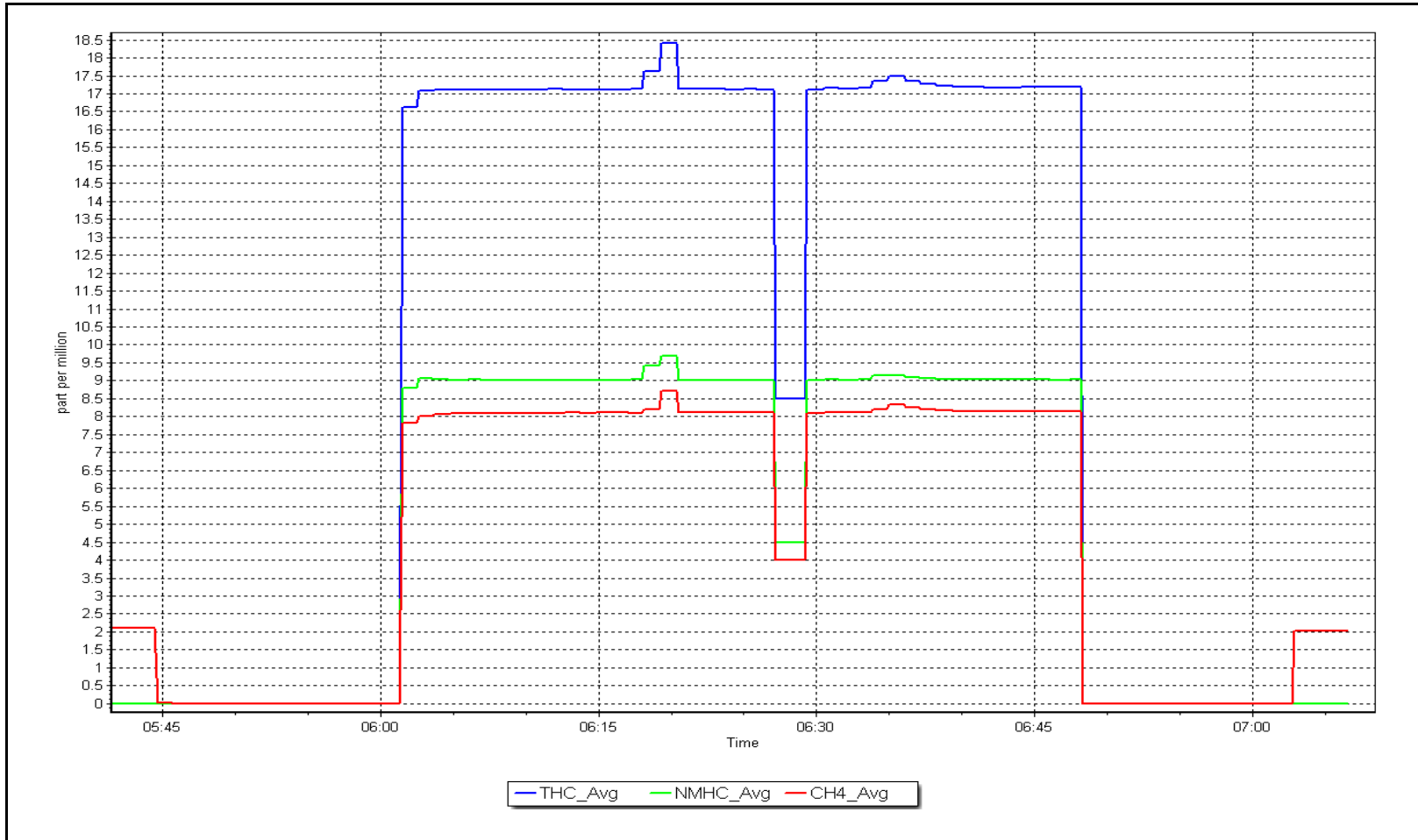
	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.999231	
THC Cal Offset:	-0.074982	
CH <sub>4</sub> Cal Slope:	0.999911	
CH <sub>4</sub> Cal Offset:	-0.045077	
NMHC Cal Slope:	0.998620	
NMHC Cal Offset:	-0.029904	

Calibration Performed By:      Melissa Lemay

NMHC Calibration Plot

Date:

Location: Anzac





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Anzac  
 Station number: AMS 14  
 Calibration Date: May 1, 2026  
 Last Cal Date: April 7, 2026  
 Start time (MST): 6:02  
 End time (MST): 10:28  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0037092  
 NOX Cal Gas Conc: 60.7 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 60.70 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701H  
 Cal Gas Expiry Date: May 16, 2031  
 NO Cal Gas Conc: 60.40 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 60.40 ppm  
 NO gas Diff:  
 Serial Number: 3812  
 Serial Number: 357

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	-0.1	0.2	----	----
AF High point	4934	66.2	803.6	799.7	4.0	797.4	793.3	4.1	1.0079	1.0079
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO <sub>x</sub> = 796.5 ppb	NO = 794.3 ppb	<i>* = &gt; +/-5% change initiates investigation</i>				*Percent Change	NO <sub>x</sub> = 0.1%
Baseline Corr 1st pt	NO <sub>x</sub> = 797.3 ppb	NO = 793.4 ppb	<u>As Found Statistics</u>				*Percent Change	NO = -0.1%
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :		Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :		NO SI:	NO Int:	
			As found	NO <sub>2</sub> r <sup>2</sup> :		NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1152430008

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.991077	0.987904
NO <sub>x</sub> Cal Offset:	-0.011720	0.129147
NO Cal Slope:	0.994968	0.991122
NO Cal Offset:	-1.350605	-1.229604
NO <sub>2</sub> Cal Slope:	0.995905	0.996427
NO <sub>2</sub> Cal Offset:	-0.917017	-0.615161

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.375	1.375	NO bkgnd or offset:	3.7	3.7
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	3.7	3.7
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	150.0	150.0

### Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.3	0.1	0.2	----	----
High point	4934	66.2	803.6	799.7	4.0	794.1	791.9	2.2	1.0120	1.0098
Mid point	4967	33.1	401.8	399.8	2.0	397.1	394.7	2.3	1.0119	1.0130
Low point	4983	16.6	201.5	200.5	1.0	199.0	196.0	3.0	1.0128	1.0232
As left zero	5000	0.0	0.0	0.0	0.0	0.3	0.1	0.2	----	----
As left span	4934	66.2	803.6	382.0	421.6	794.1	382.0	412.1	1.0120	1.0000
Average Correction Factor									1.0122	1.0153

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.2	----	----
High GPT point	788.5	381.7	410.8	409.1	1.0041	99.6%
Mid GPT point	788.5	590.4	202.1	200.3	1.0088	99.1%
Low GPT point	788.5	690.2	102.3	100.5	1.0176	98.3%
Average Correction Factor					1.0102	99.0%

Notes:

No adjustments or maintenance done.

Calibration Performed By:

Melissa Lemay



# Wood Buffalo Environmental Association

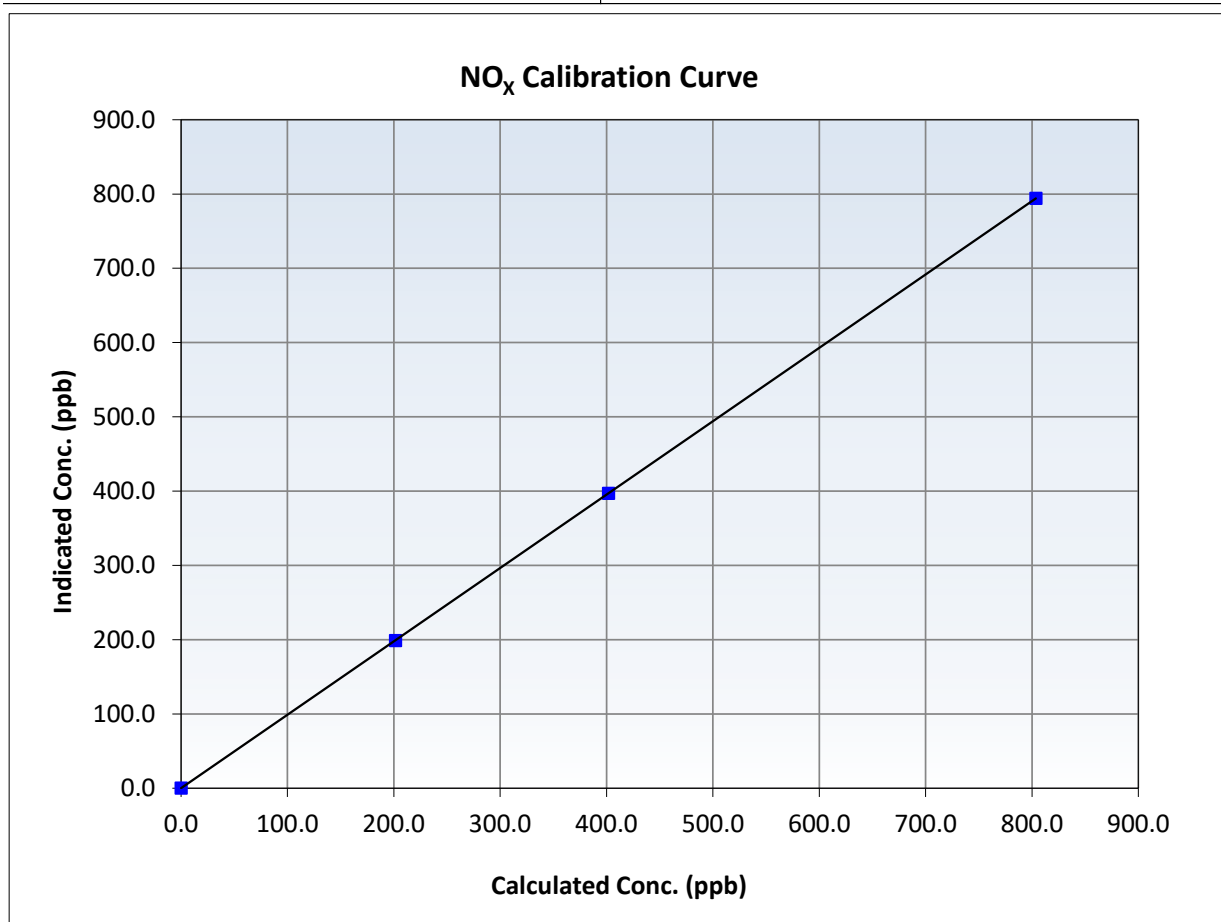
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 1, 2026	Previous Calibration:	April 7, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	6:02	End Time (MST):	10:28
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.3	----	Correlation Coefficient	1.000000	≥0.995
803.6	794.1	1.0120	Slope	0.987904	0.90 - 1.10
401.8	397.1	1.0119	Intercept	0.129147	+/-20
201.5	199.0	1.0128			





# Wood Buffalo Environmental Association

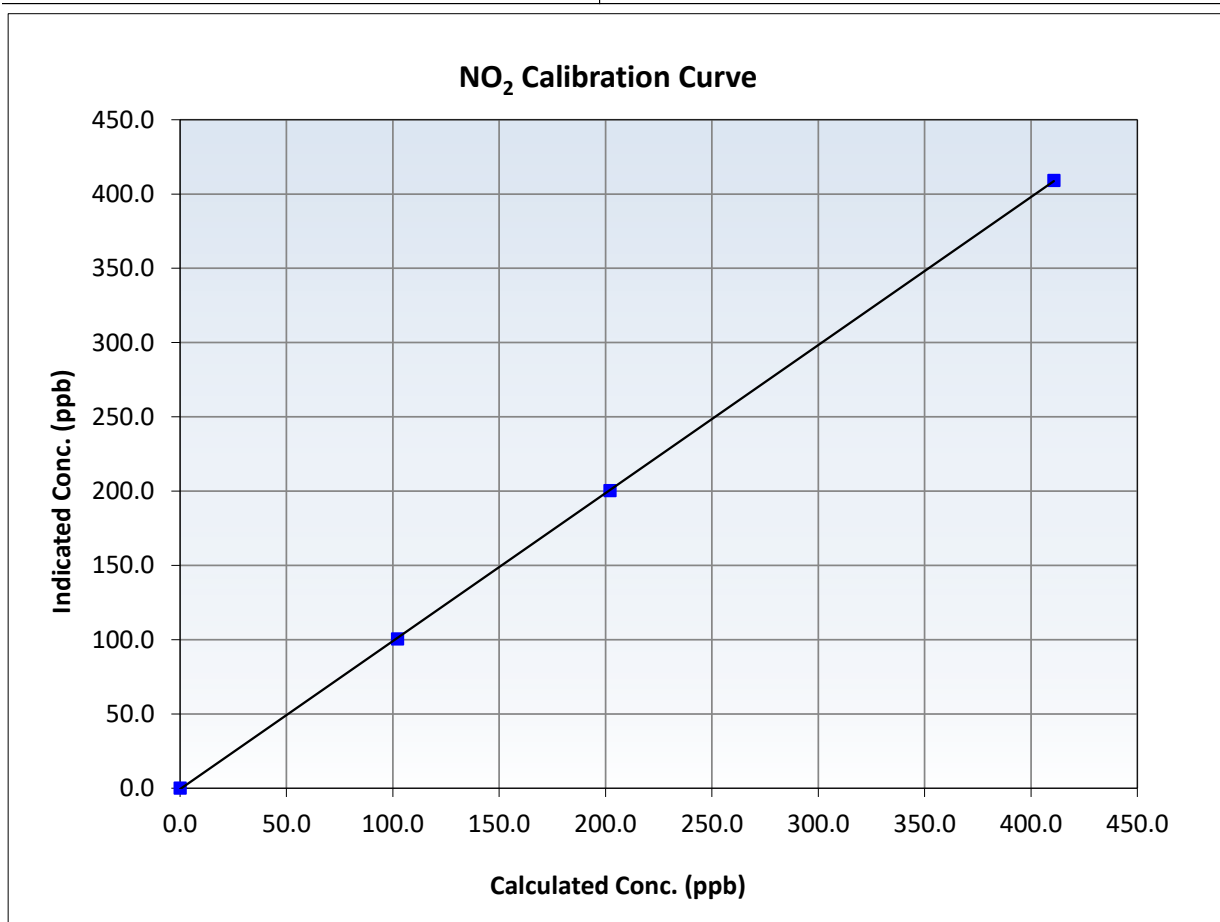
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 1, 2026	Previous Calibration:	April 7, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	6:02	End Time (MST):	10:28
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430008

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999982	≥0.995
410.8	409.1	1.0041	Slope	0.996427	0.90 - 1.10
202.1	200.3	1.0088	Intercept	-0.615161	+/-20
102.3	100.5	1.0176			





# Wood Buffalo Environmental Association

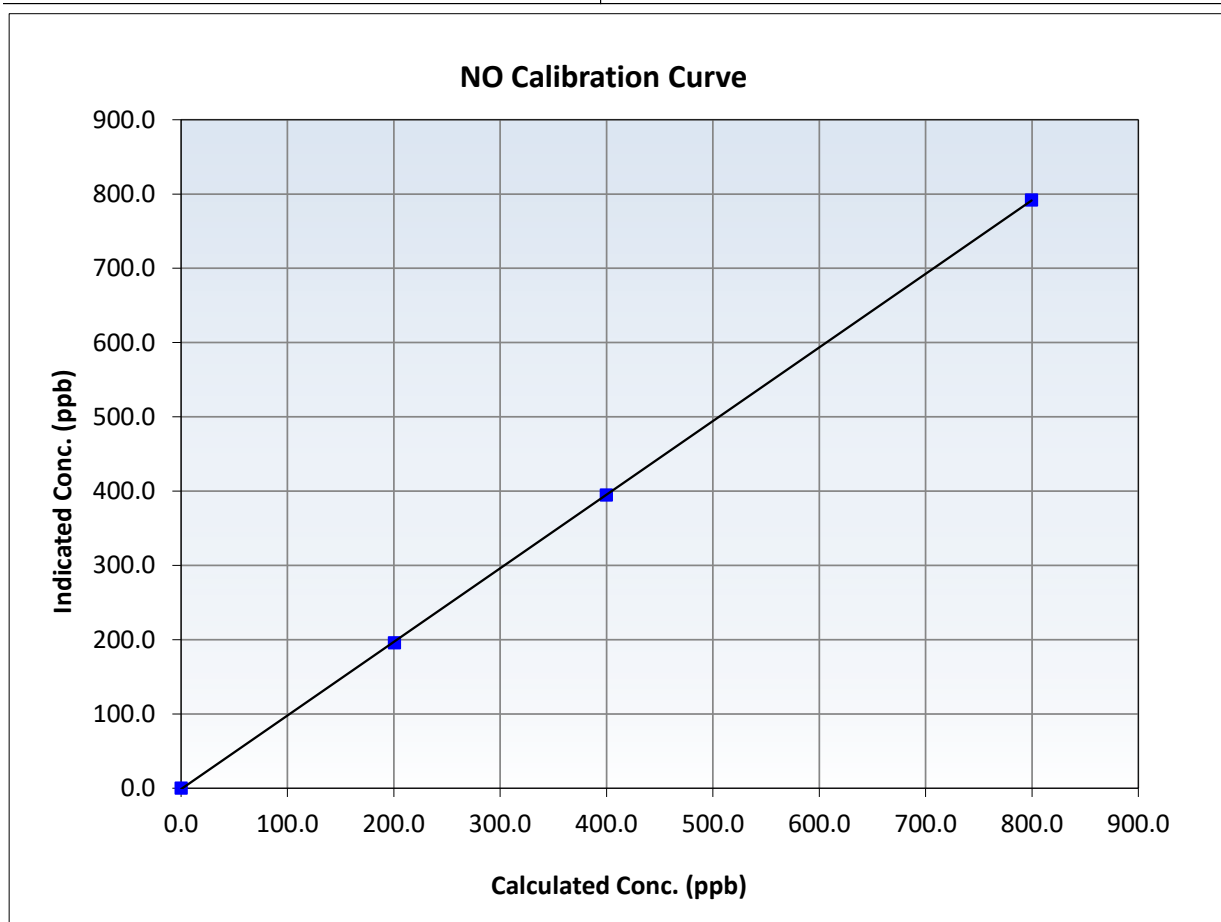
## NO Calibration Summary

### Station Information

Calibration Date:	May 1, 2026	Previous Calibration:	April 7, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	6:02	End Time (MST):	10:28
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430008

### Calibration Data

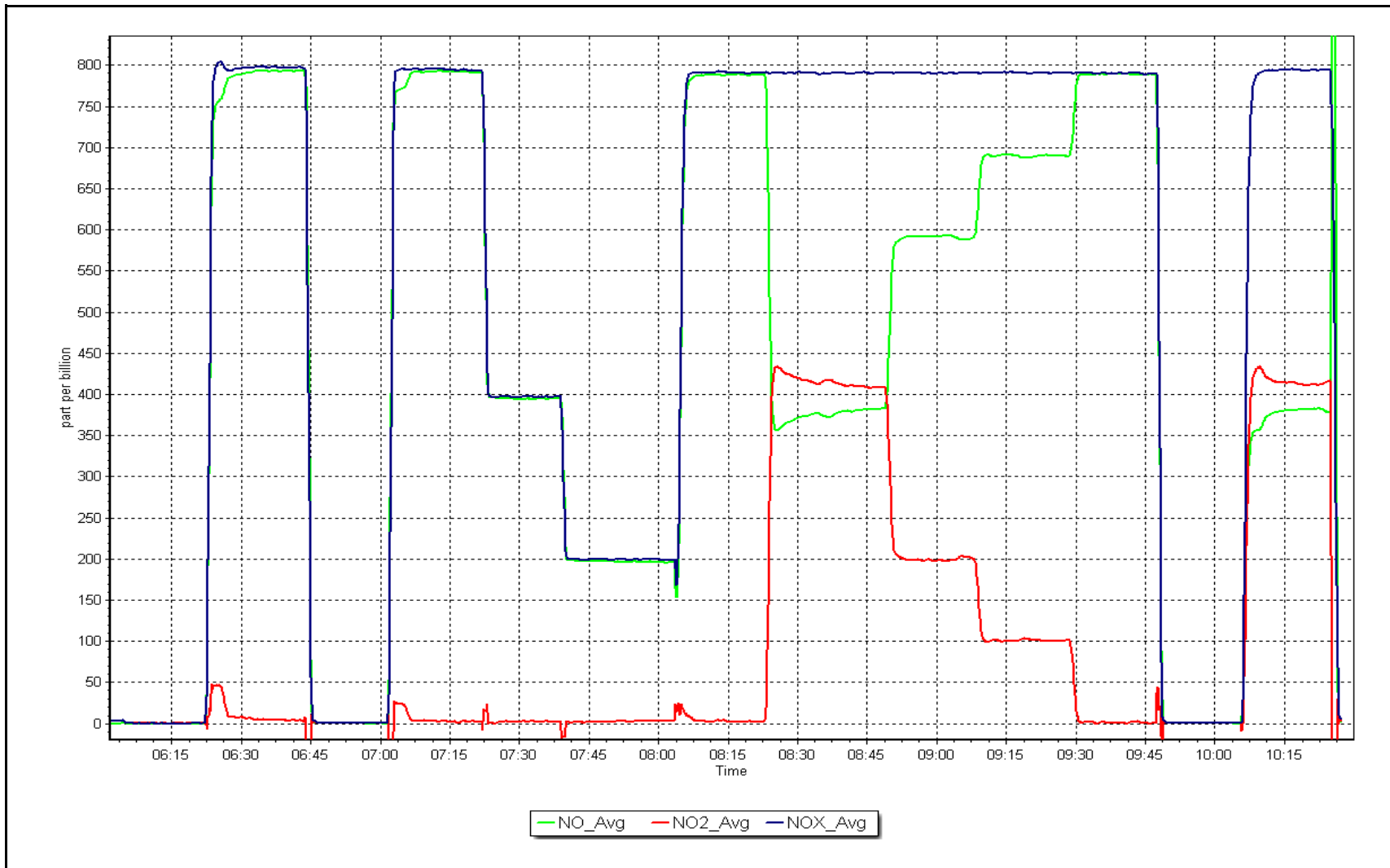
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999987	<span style="color: red;">≥0.995</span>
799.7	791.9	1.0098	Slope	0.991122	<span style="color: red;">0.90 - 1.10</span>
399.8	394.7	1.0130	Intercept	-1.229604	<span style="color: red;">+/-20</span>
200.5	196.0	1.0232			



NO<sub>x</sub> Calibration Plot

Date: May 1, 2026

Location: Anzac





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Anzac	Station number:	AMS 14
Calibration Date:	May 28, 2026	Last Cal Date:	April 2, 2026
Start time (MST):	7:08	End time (MST):	9:48
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	3812
Calibrator Make/Model:	API T700	Serial Number:	357
ZAG Make/Model:	API T701H		

### Analyzer Information

Analyzer make:	Thermo 49i	Analyzer serial #:	1152220023
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999800	0.998914	Backgd or Offset:	-0.8	-0.8
Calibration intercept:	0.660000	0.340000	Coeff or Slope:	1.532	1.532

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.6	----
As found High point	5000	936.0	400.0	400.3	0.998
As found Mid point					
As found Low point					
Baseline Corr As found:	400.9	Previous response	400.6	*% change	0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	5000	934.5	400.0	399.8	1.001
Mid point	5000	810.2	200.0	200.4	0.998
Low point	5000	713.9	100.0	100.1	0.999
As left zero	5000	0.0	0.0	-0.3	----
As left span	5000	933.9	400.0	400.7	0.998
Average Correction Factor					0.999

Notes: No Maintenance or adjustments done.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

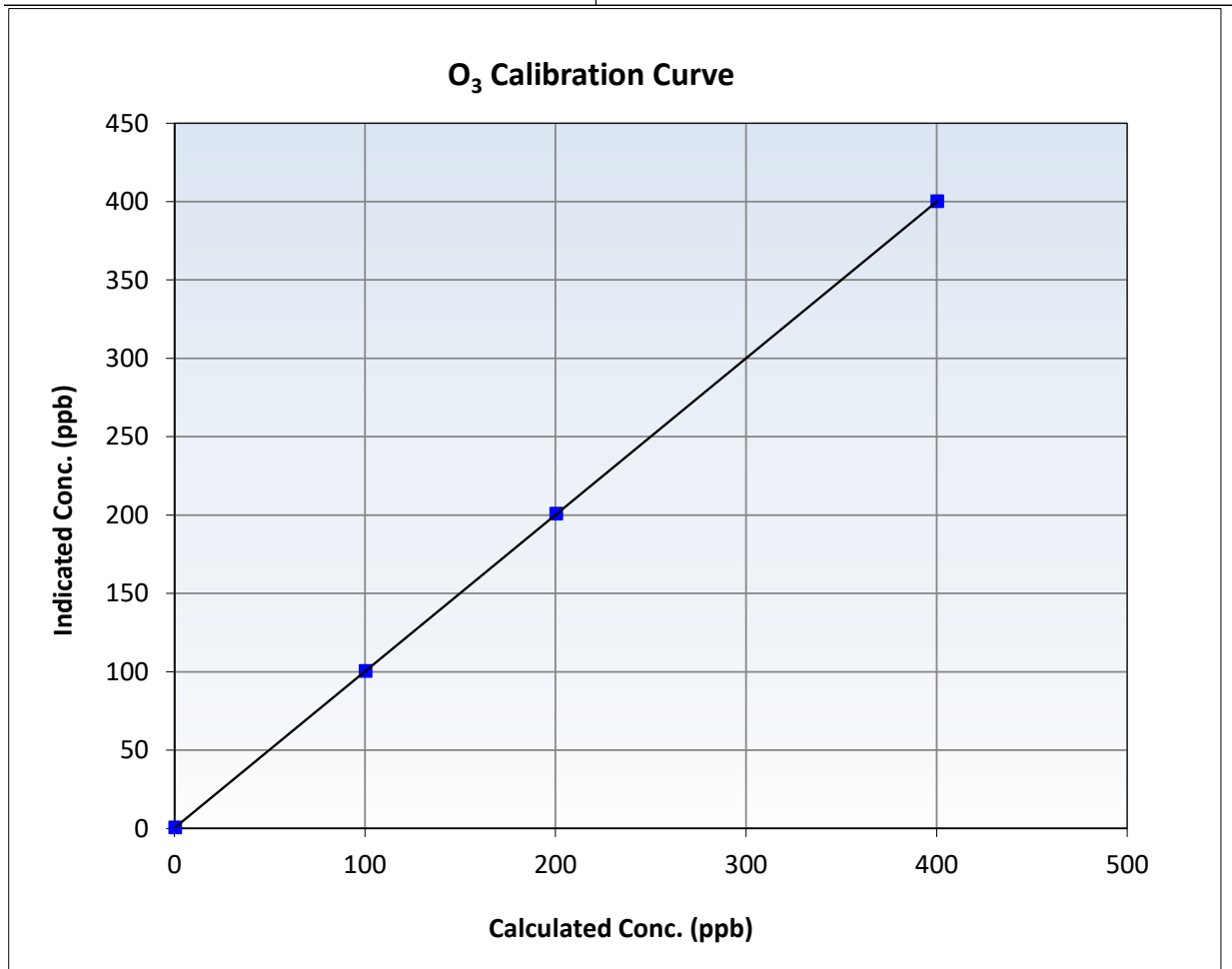
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 2, 2026
Station Name:	Anzac	Station Number:	AMS 14
Start Time (MST):	7:08	End Time (MST):	9:48
Analyzer make:	Thermo 49i	Analyzer serial #:	1152220023

### Calibration Data

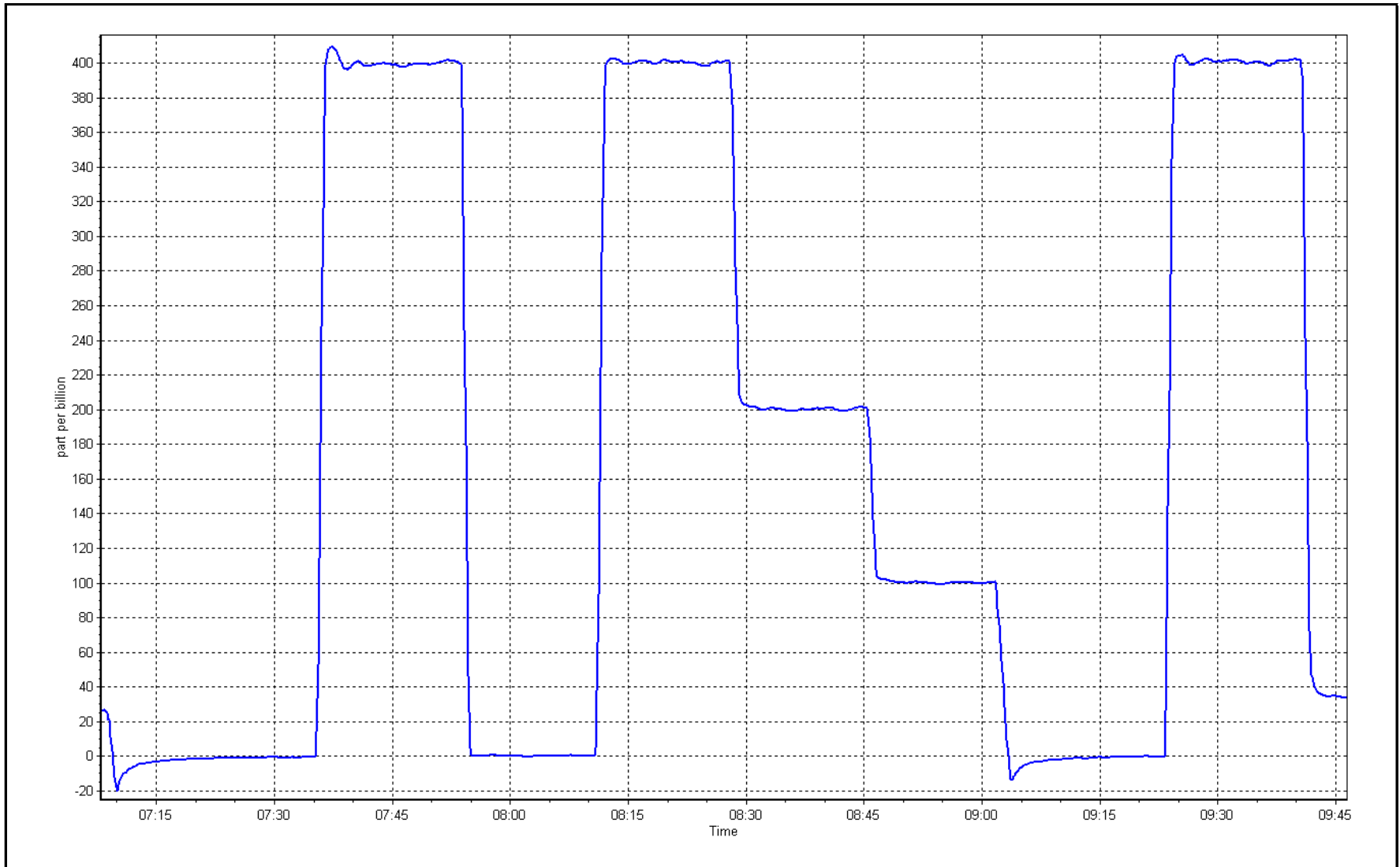
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.3	----	Correlation Coefficient	0.999999	<span style="color: red;">≥0.995</span>
400.0	399.8	1.0005	Slope	0.998914	<span style="color: red;">0.90 - 1.10</span>
200.0	200.4	0.9980	Intercept	0.340000	<span style="color: red;">+/- 5</span>
100.0	100.1	0.9990			



O<sub>3</sub> Calibration Plot

Date: May 28, 2026

Location: Anzac





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Anzac Station number: AMS 14  
 Calibration Date: May 22, 2026 Last Cal Date: April 14, 2026  
 Start time (MST): 12:46 End time (MST): 14:32

Analyzer Make: AP T640 S/N: 825  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388752  
 Temp/RH standard: Alicat FP-25BT S/N: 388752

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	22.10	21.37	22.10	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	709.80	711.25	709.80	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.01	4.92	5.01	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	34	----	34	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	2.50	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: July 16, 2026  
 Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	10.1	10.9	10.9	<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: May 22, 2026  
 Date Disposable Filter Changed: May 22, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: May 22, 2026  
 Date RH/T Sensor Cleaned: May 22, 2026

Notes: Verified the flow, temperature, and pressure. Leak checks passed. PMT peak test passed. Disposable inlet filter changed. Optical chamber, RH/T sensor, and sample tube were cleaned.

Calibration by: Rene Chamberland



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS17  
WAPASU  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Wapasu	Station number:	AMS17
Calibration Date:	May 6, 2026	Last Cal Date:	April 29, 2026
Start time (MST):	9:56	End time (MST):	13:10
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.12	ppm	Cal Gas Exp Date:	April 9, 2033
Cal Gas Cylinder #:	CC422255			
Removed Cal Gas Conc:	50.12	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:	N/A		Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	2448
Zero Air Gen Model:	Teledyne API 701H		Serial Number:	1238

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1218153459
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004350	1.005694	Backgd or Offset:	15.5	15.7
Calibration intercept:	-1.196218	-0.616694	Coeff or Slope:	1.105	1.094

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4920	79.8	799.9	812.7	0.984
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	813.1	Previous response	802.2	*% change	1.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.4	----
High point	4920	79.8	799.9	804.0	0.995
Mid point	4960	39.9	400.0	401.5	0.996
Low point	4980	20.0	200.5	200.8	0.998
As left zero	5000	0.0	0.0	-0.1	----
As left span	4920	79.8	799.9	803.7	0.995
Average Correction Factor:					0.997

Notes: Sample inlet filter changed after as founds. Adjusted span.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

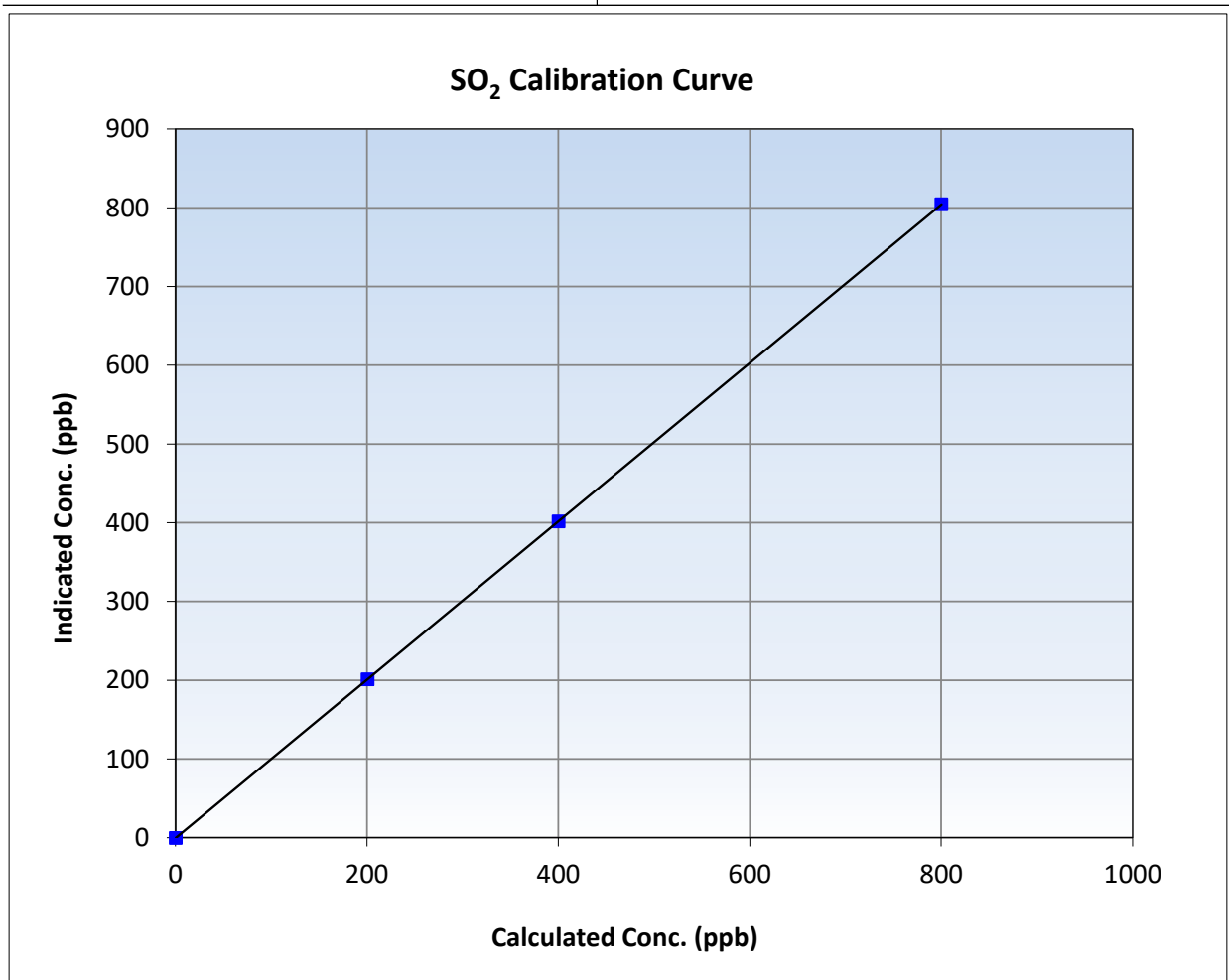
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 29, 2026
Station Name:	Wapasu	Station Number:	AMS17
Start Time (MST):	9:56	End Time (MST):	13:10
Analyzer make:	Thermo 43i	Analyzer serial #:	1218153459

### Calibration Data

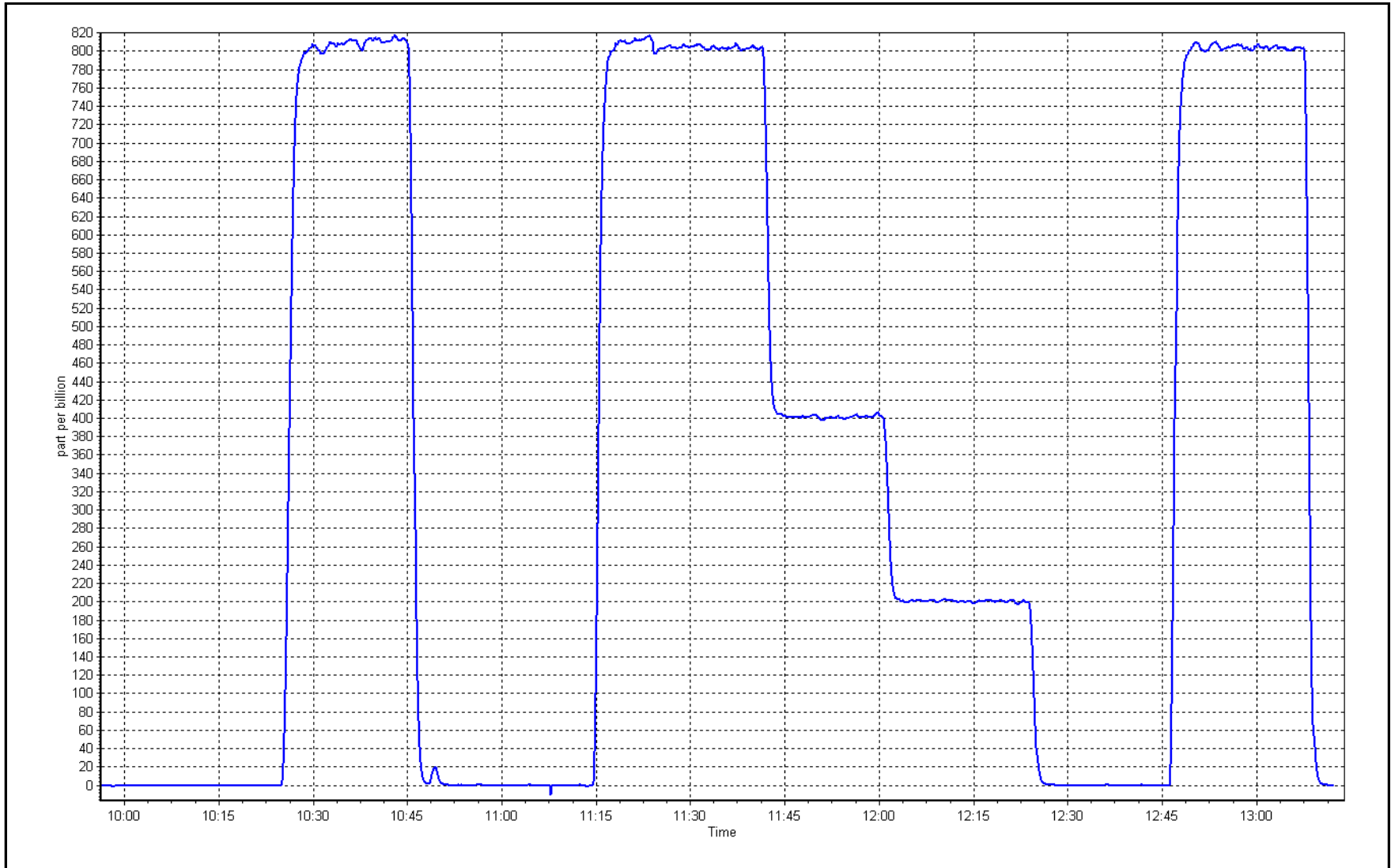
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
0.0	-0.4	----	Correlation Coefficient	1.000000
799.9	804.0	0.9950	Slope	1.005694
400.0	401.5	0.9962	Intercept	-0.616694
200.5	200.8	0.9984		
				≥0.995
				0.90 - 1.10
				+/-30



SO2 Calibration Plot

Date: May 6, 2026

Location: Wapasu





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name: Wapasu	Station number: AMS 17
Calibration Date: May 8, 2026	Last Cal Date: April 14, 2026
Start time (MST): 9:51	End time (MST): 13:45
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 4.77 ppm	Cal Gas Exp Date: August 28, 2027
Cal Gas Cylinder #: DT20029267	
Removed Cal Gas Conc: 4.77 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 2449
ZAG Make/Model: API T701H	Serial Number: 359

### Analyzer Information

Analyzer make: Thermo 43iQ-TL	Analyzer serial #: 12228021057
Converter make: Global G150	Converter serial #: 2022-219
Analyzer Range: 0 - 100 ppb	Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.998785	1.001781	Backgd or Offset:	3.12	3.12
Calibration intercept:	-0.219869	-0.099773	Coeff or Slope:	1.037	1.037

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4916	83.9	80.0	80.3	0.996
As found Mid point	4958	41.9	40.0	40.2	0.992
As found Low point	4979	21.0	20.0	20.1	0.992
New cylinder response					
Baseline Corr As found:	80.4	Prev response:	79.73	*% change:	0.8%
Baseline Corr 2nd AF pt:	40.3	AF Slope:	1.004353	AF Intercept:	-0.039799
Baseline Corr 3rd AF pt:	20.2	AF Correlation:	0.999996	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4916	83.9	80.0	80.0	1.001
Mid point	4958	41.9	40.0	40.1	0.997
Low point	4979	21.0	20.0	20.0	1.002
As left zero	5000	0.0	0.0	-0.1	----
As left span	4916	83.9	80.0	80.5	0.994
SO2 Scrubber Check	4920	79.8	798.0	0.1	----
Date of last scrubber change:	N/A			Ave Corr Factor	1.000
Date of last converter efficiency test:	N/A				

Notes: Sample inlet filter was changed after multipoint as founds. SO2 scrubber check done and passed. No adjustments made.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

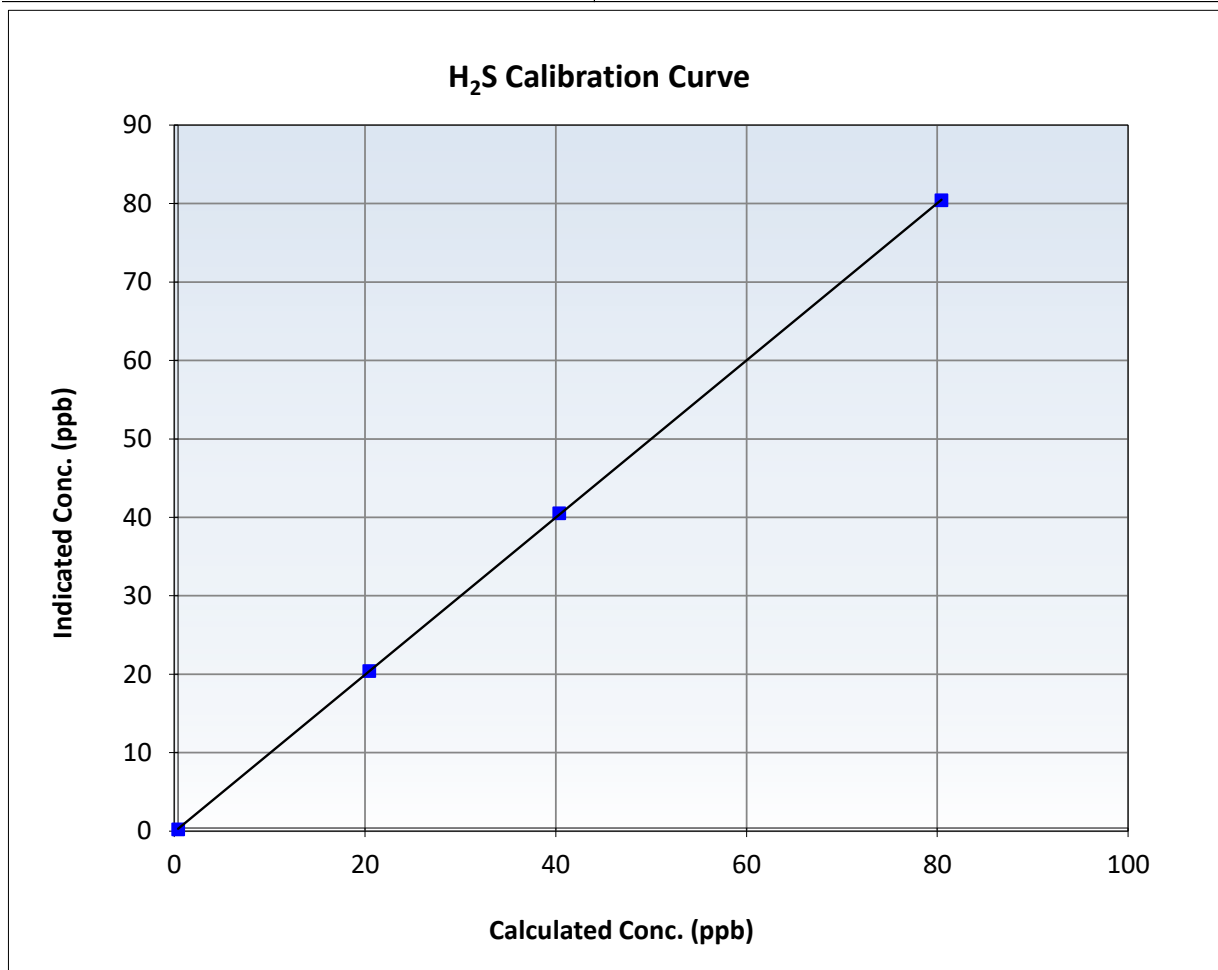
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	April 14, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	9:51	End Time (MST):	13:45
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	12228021057

### Calibration Data

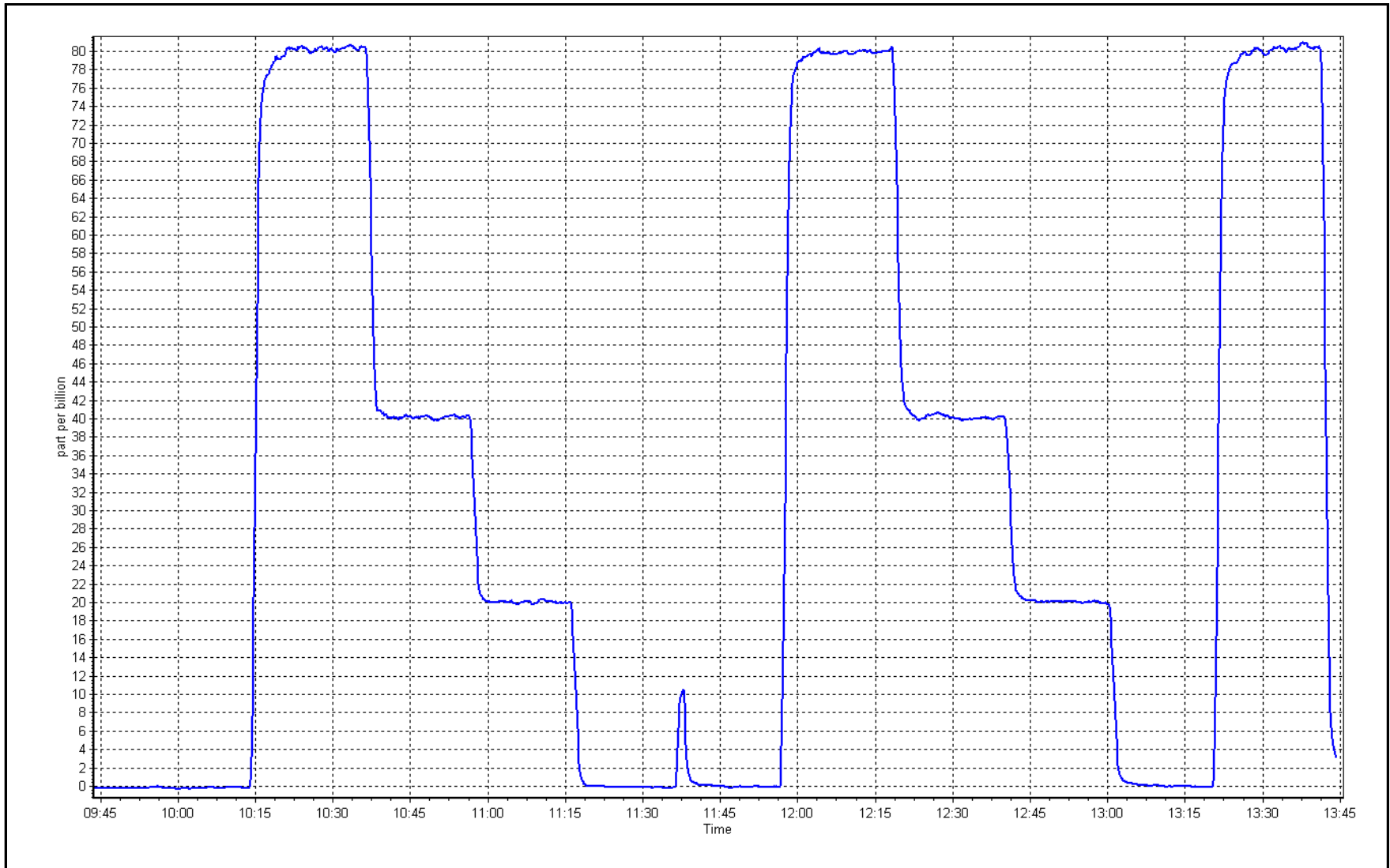
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999988	≥0.995
80.0	80.0	1.0005	Slope	1.001781	0.90 - 1.10
40.0	40.1	0.9968	Intercept	-0.099773	+/-3
20.0	20.0	1.0017			



H<sub>2</sub>S Calibration Plot

Date: May 8, 2026

Location: Wapasu





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name: Wapasu	Station number: AMS 17
Calibration Date: May 30, 2026	Last Cal Date: May 8, 2026
Start time (MST): 11:30	End time (MST): 13:36
Reason: Maintenance	

### Calibration Standards

Cal Gas Concentration: 4.77 ppm	Cal Gas Exp Date: August 28, 2027
Cal Gas Cylinder #: DT20029267	
Removed Cal Gas Conc: 4.77 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 2448
ZAG Make/Model: API T701H	Serial Number: 1238

### Analyzer Information

Analyzer make: Thermo 43iQ-TL	Analyzer serial #: 12228021057
Converter make: Global G150	Converter serial #: 2026-101
Analyzer Range: 0 - 100 ppb	Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001781	1.007068	Backgd or Offset:	3.12	
Calibration intercept:	-0.099773	-0.159881	Coeff or Slope:	1.037	

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	NA	Prev response:	NA	*% change:	NA
Baseline Corr 2nd AF pt:	NA	AF Slope:	NA	AF Intercept:	NA
Baseline Corr 3rd AF pt:	NA	AF Correlation:	NA	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4916	83.9	80.0	80.5	0.994
Mid point	4958	41.9	40.0	40.0	0.999
Low point	4979	21.0	20.0	20.0	1.002
As left zero	5000	0.0	0.0	-0.1	----
As left span	4916	83.9	80.0	80.6	0.993
SO2 Scrubber Check	4920	79.8	798.0		----
Date of last scrubber change:		N/A		Ave Corr Factor	0.998
Date of last converter efficiency test:		N/A			

Notes: No As Finds as converter found dead on arrival. Swapped with newer unit. Zero and span slightly adjusted

Calibration Performed By: Ryan Power



# Wood Buffalo Environmental Association

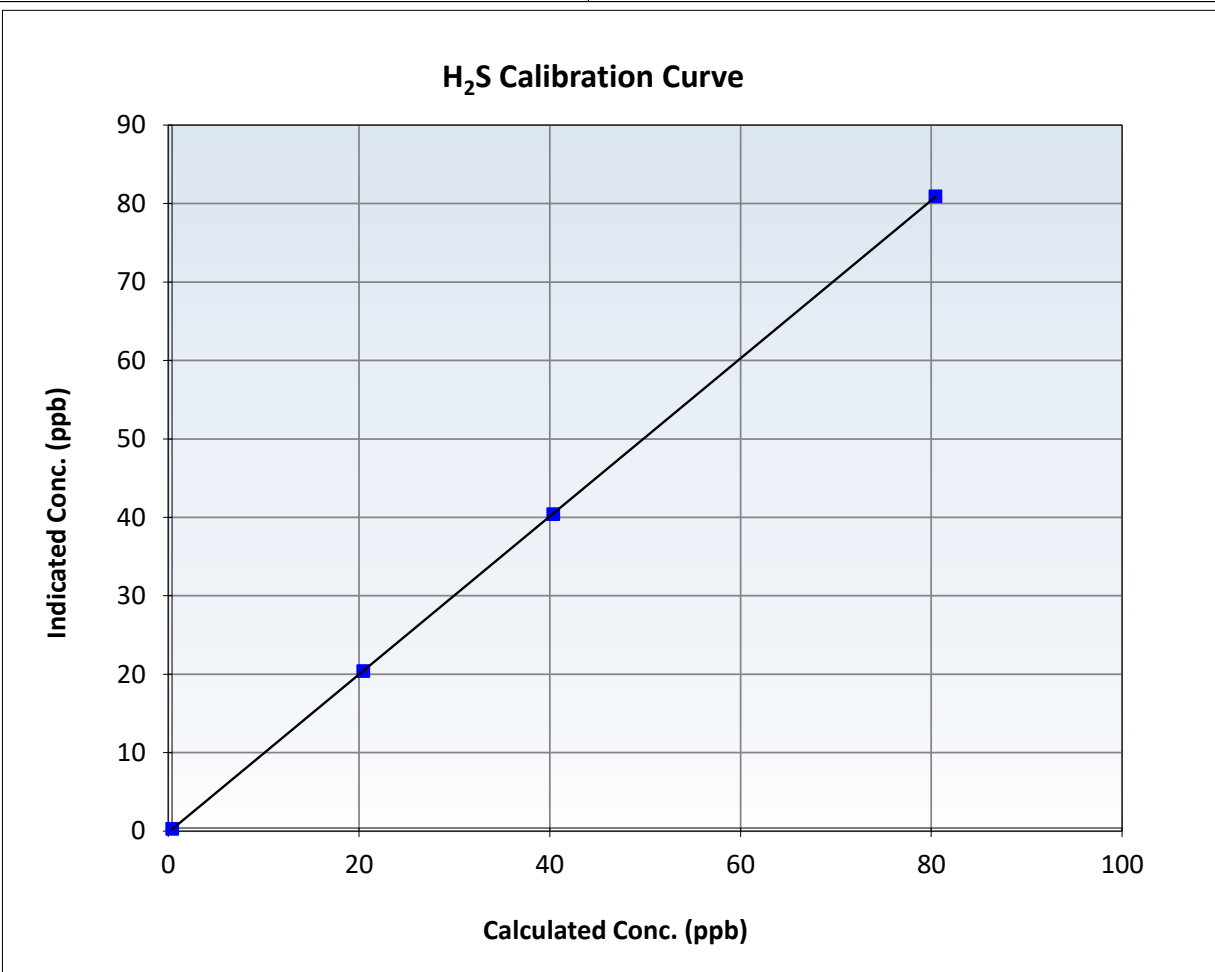
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 30, 2026	Previous Calibration:	May 8, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	11:30	End Time (MST):	13:36
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	12228021057

### Calibration Data

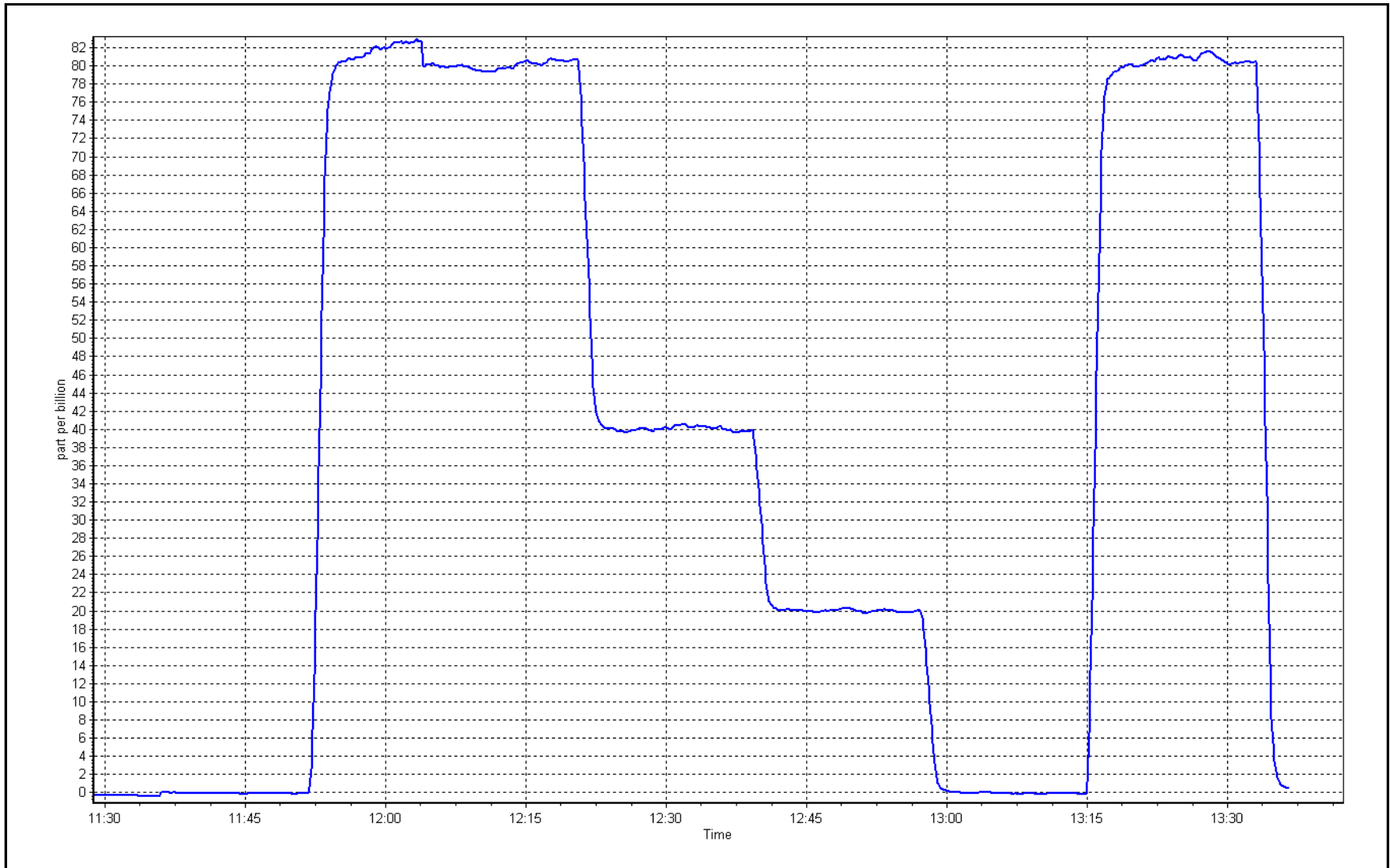
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999996	≥0.995
80.0	80.5	0.9943	Slope	1.007068	0.90 - 1.10
40.0	40.0	0.9993	Intercept	-0.159881	+/-3
20.0	20.0	1.0017			



H<sub>2</sub>S Calibration Plot

Date: May 30, 2026

Location: Wapasu







# Wood Buffalo Environmental Association

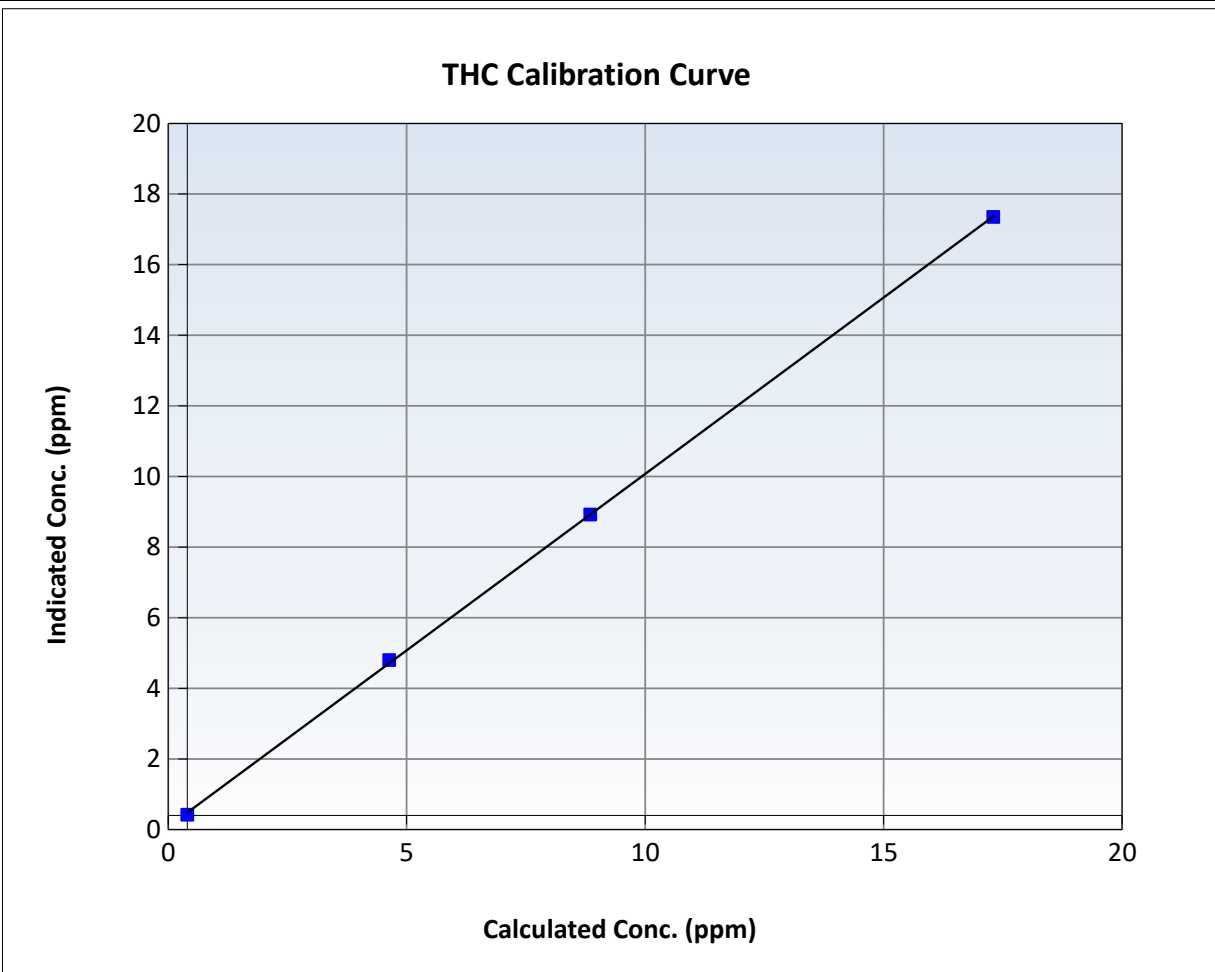
## THC Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 29, 2026
Station Name:	Wapasu	Station Number:	AMS17
Start Time (MST):	9:56	End Time (MST):	13:10
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1218153352

### Calibration Data

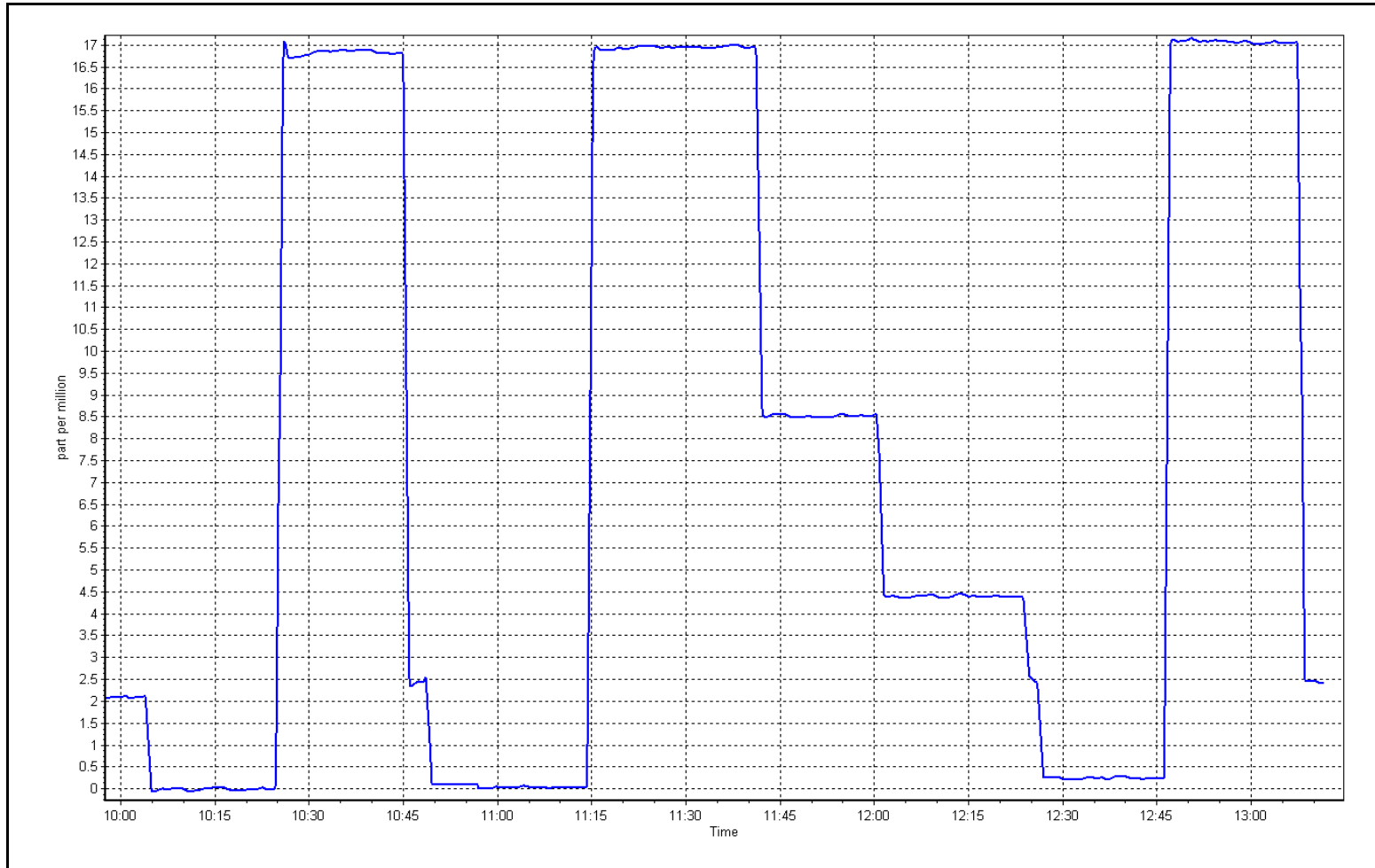
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.02	----	Correlation Coefficient	0.999932	<span style="color: red;">≥0.995</span>
16.90	16.95	0.9972	Slope	0.999229	<span style="color: red;">0.90 - 1.10</span>
8.45	8.52	0.9915	Intercept	0.080229	<span style="color: red;">+/-1.5</span>
4.24	4.39	0.9640			



THC Calibration Plot

Date: May 6, 2026

Location: Wapasu





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Wapasu  
 Station number: AMS 17  
 Calibration Date: May 12, 2026  
 Last Cal Date: April 20, 2026  
 Start time (MST): 9:49  
 End time (MST): 14:35  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0045177  
 NOX Cal Gas Conc: 61.30 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 61.30 ppm  
 NOX gas Diff:  
 Calibrator Model: API T700  
 ZAG make/model: API T701H  
 Cal Gas Expiry Date: July 19, 2032  
 NO Cal Gas Conc: 61.00 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 61.00 ppm  
 NO gas Diff:  
 Serial Number: 2448  
 Serial Number: 359

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.1	0.2	-0.3	----	----
AF High point	4934	65.6	804.3	800.4	3.9	790.7	786.1	4.6	1.0171	1.0184
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 801.7 ppb	NO = 796.6 ppb				<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -1.4%	
Baseline Corr 1st pt	NO <sub>x</sub> = 790.8 ppb	NO = 785.9 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -1.4%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo Scientific 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1218153460

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.995242	0.999022
NO <sub>x</sub> Cal Offset:	1.196062	1.516132
NO Cal Slope:	0.994811	1.001222
NO Cal Offset:	0.335929	0.416029
NO <sub>2</sub> Cal Slope:	1.001017	0.998393
NO <sub>2</sub> Cal Offset:	-0.279353	-0.035320

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.018	1.029	NO bkgnd or offset:	3.5	3.6
NOX coeff or slope:	0.997	0.997	NOX bkgnd or offset:	3.9	3.9
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	226.6	221.1

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.1	0.3	-0.4	----	----
High point	4934	65.6	804.3	800.4	3.9	804.1	801.6	2.5	1.0003	0.9985
Mid point	4967	32.8	402.1	400.2	2.0	404.5	401.5	3.0	0.9942	0.9967
Low point	4984	16.4	201.0	200.1	1.0	203.7	200.6	3.1	0.9870	0.9973
As left zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.3	----	----
As left span	4934	65.6	804.3	389.2	415.1	809.3	389.2	420.1	0.9938	1.0000
Average Correction Factor									0.9938	0.9975

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.4	----	----
High GPT point	800.9	390.8	414.0	413.2	1.0020	99.8%
Mid GPT point	800.9	598.3	206.5	206.2	1.0016	99.8%
Low GPT point	800.9	698.8	106.0	106.3	0.9975	100.2%
Average Correction Factor					1.0004	100.0%

Notes:

Sample inlet filter was changed after as founds. Span adjusted.

Calibration Performed By:

Param Kaur



# Wood Buffalo Environmental Association

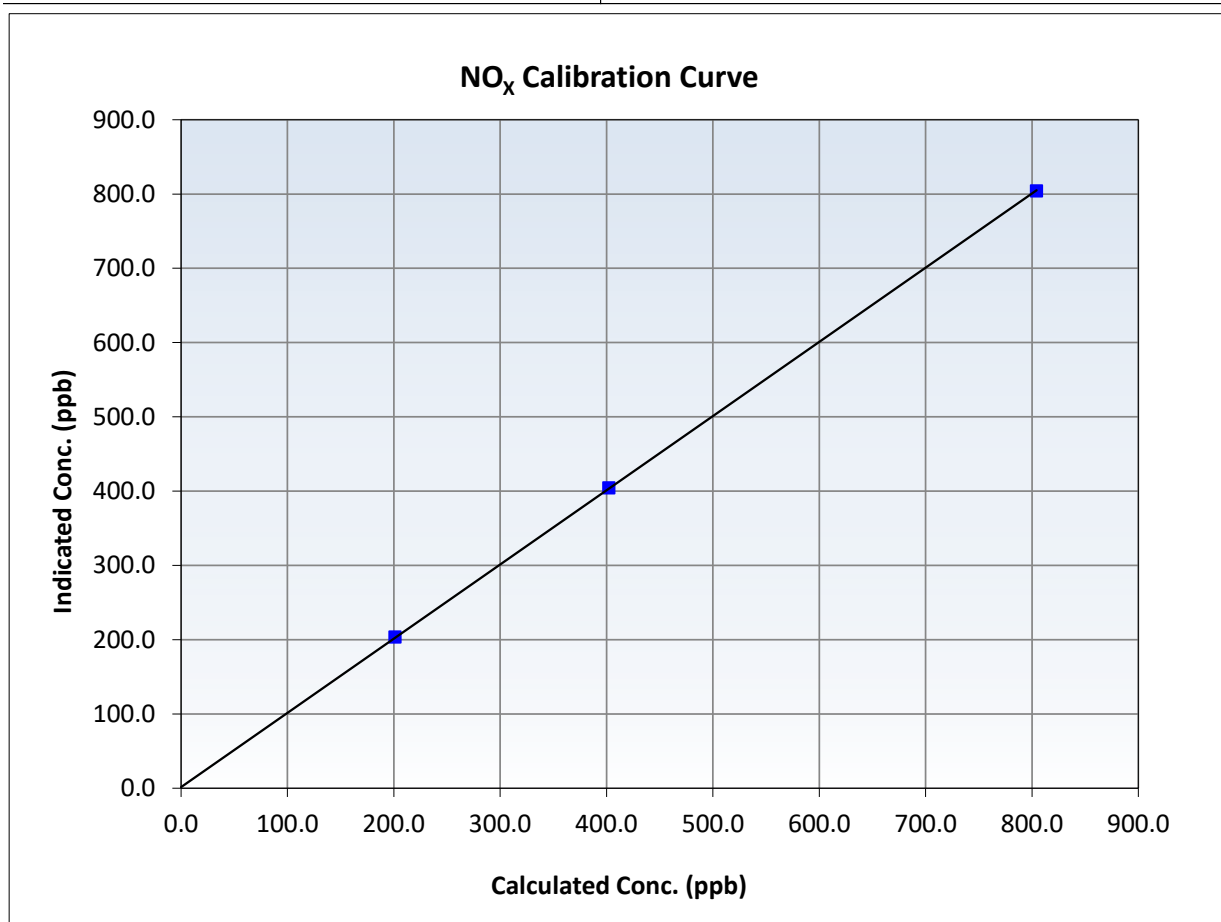
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 20, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	9:49	End Time (MST):	14:35
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1218153460

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999981	≥0.995
804.3	804.1	1.0003	Slope	0.999022	0.90 - 1.10
402.1	404.5	0.9942	Intercept	1.516132	+/-20
201.0	203.7	0.9870			





# Wood Buffalo Environmental Association

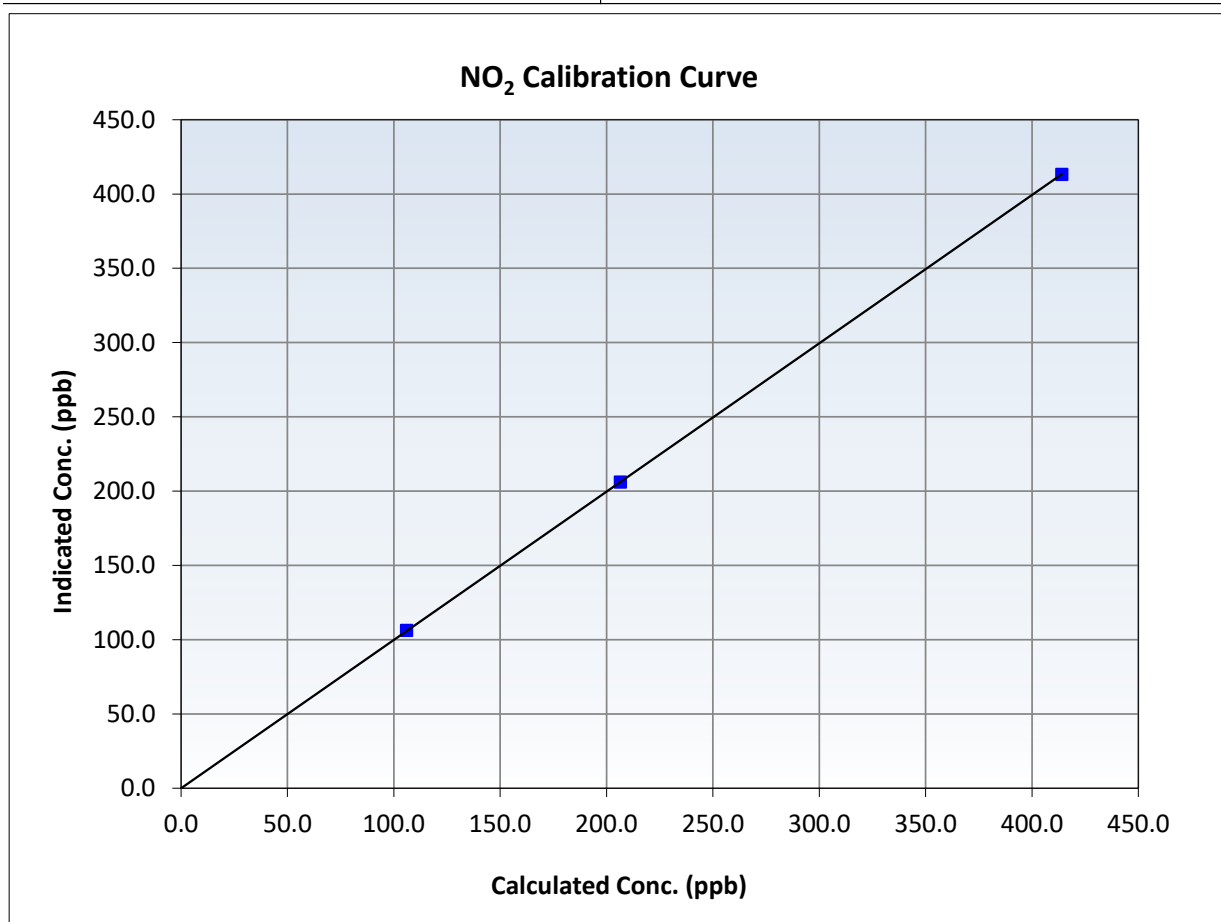
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 20, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	9:49	End Time (MST):	14:35
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1218153460

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.4	----	Correlation Coefficient	0.999996	≥0.995
414.0	413.2	1.0020	Slope	0.998393	0.90 - 1.10
206.5	206.2	1.0016	Intercept	-0.035320	+/-20
106.0	106.3	0.9975			





# Wood Buffalo Environmental Association

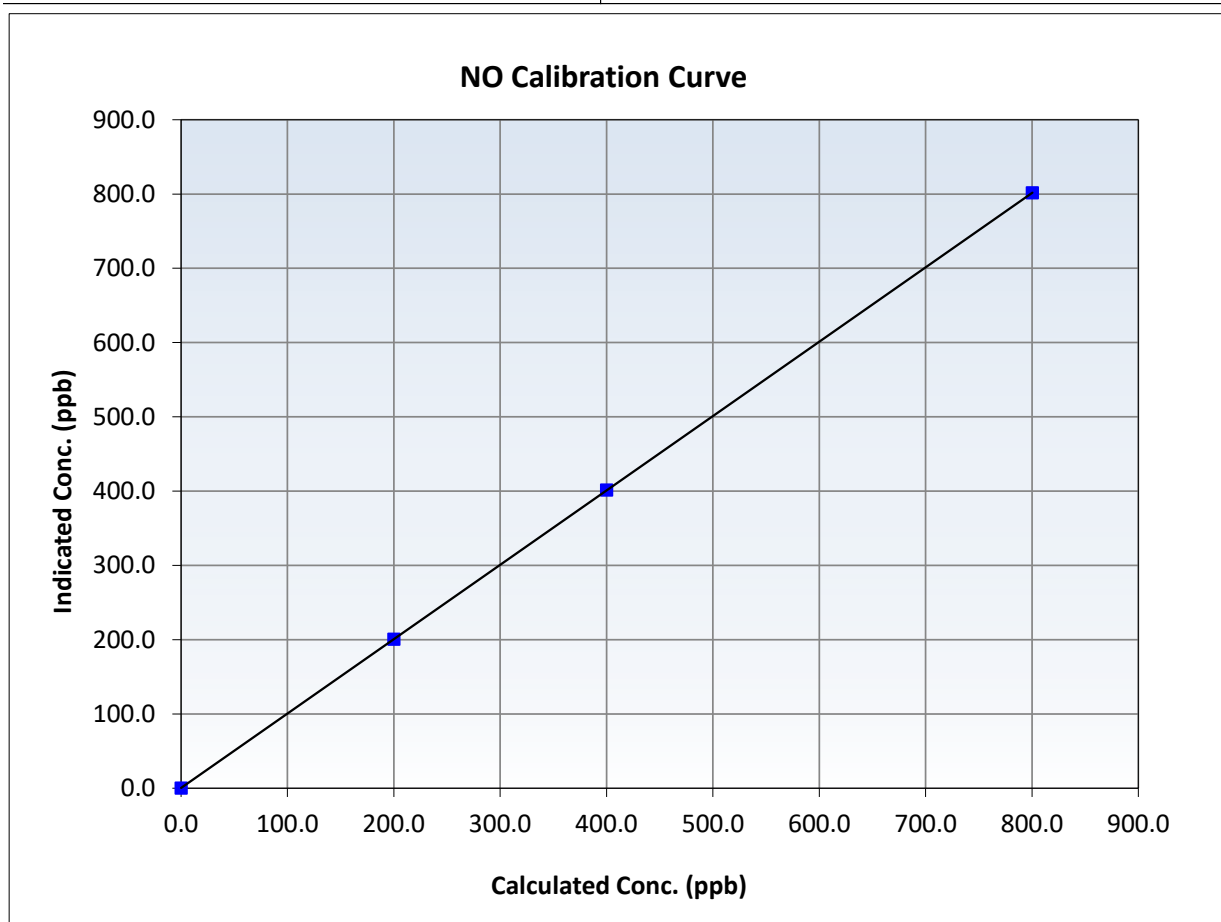
## NO Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 20, 2026
Station Name:	Wapasu	Station Number:	AMS 17
Start Time (MST):	9:49	End Time (MST):	14:35
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1218153460

### Calibration Data

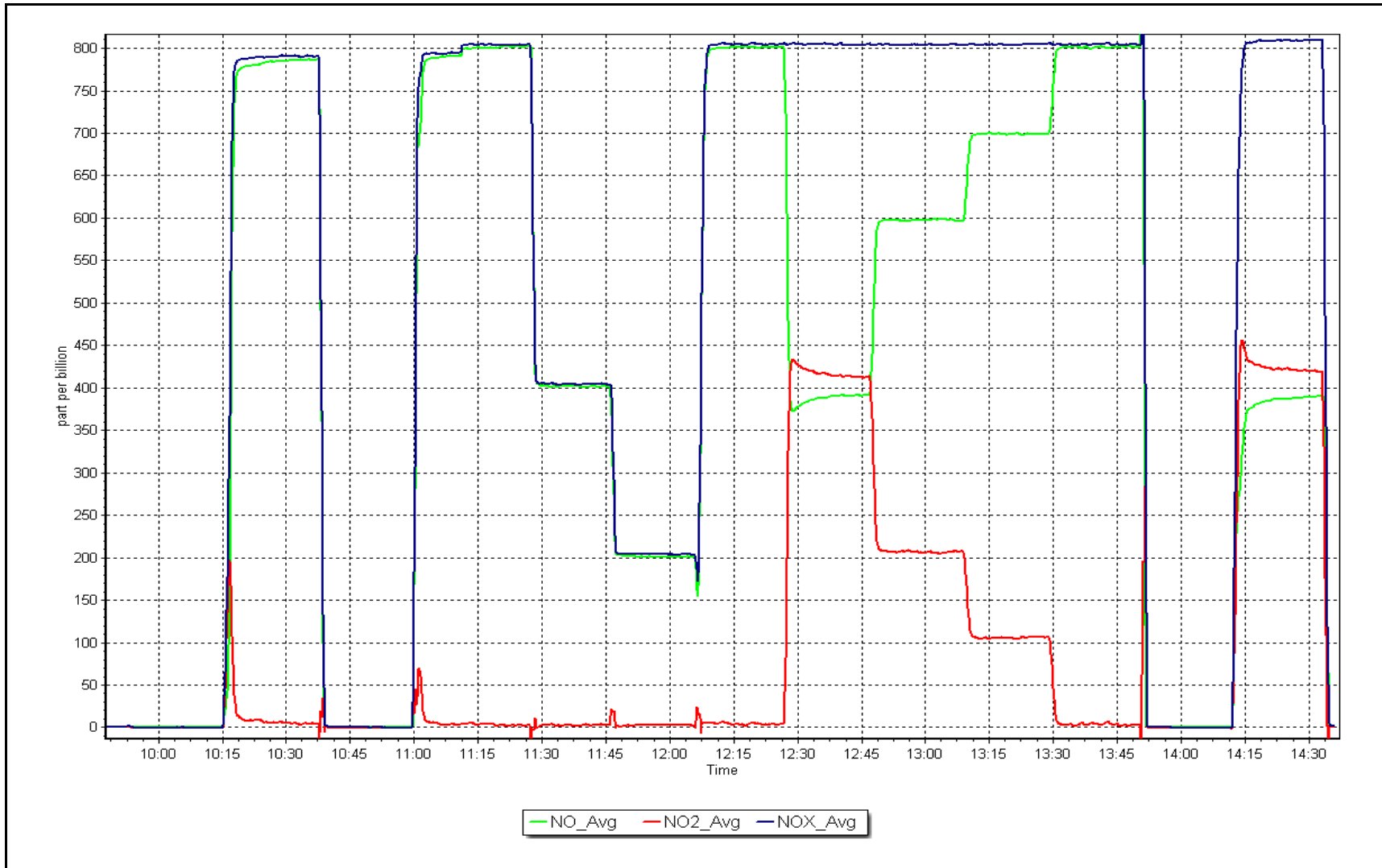
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.3	----	Correlation Coefficient	0.999999	<span style="color: red;">≥0.995</span>
800.4	801.6	0.9985	Slope	1.001222	<span style="color: red;">0.90 - 1.10</span>
400.2	401.5	0.9967	Intercept	0.416029	<span style="color: red;">+/-20</span>
200.1	200.6	0.9973			



NO<sub>x</sub> Calibration Plot

Date: May 12, 2026

Location: Wapasu





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Wapasu	Station number:	AMS17
Calibration Date:	May 5, 2026	Last Cal Date:	April 13, 2026
Start time (MST):	9:55	End time (MST):	13:01
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	2449
Calibrator Make/Model:	API T700	Serial Number:	359
ZAG Make/Model:	API T701H		

### Analyzer Information

Analyzer make:	Thermo Scientific 49i	Analyzer serial #:	1501663734
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999971	1.001714	Backgd or Offset:	-0.4	-0.4
Calibration intercept:	-0.220000	0.200000	Coeff or Slope:	1.033	1.005

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	0.1	----
As found High point	5000	1122.8	400.0	411.7	0.972
As found Mid point					
As found Low point					
Baseline Corr As found:	411.6	Previous response	399.8	*% change	2.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	0.1	----
High point	5000	1123.4	400.0	400.8	0.998
Mid point	5000	923.2	200.0	200.7	0.997
Low point	5000	801.2	100.0	100.4	0.996
As left zero	5000	800.0	0.0	0.0	----
As left span	5000	1122.6	400.0	403.6	0.991
Average Correction Factor					0.997

Notes: Sample inlet filter was changed after as founds. Adjusted span.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

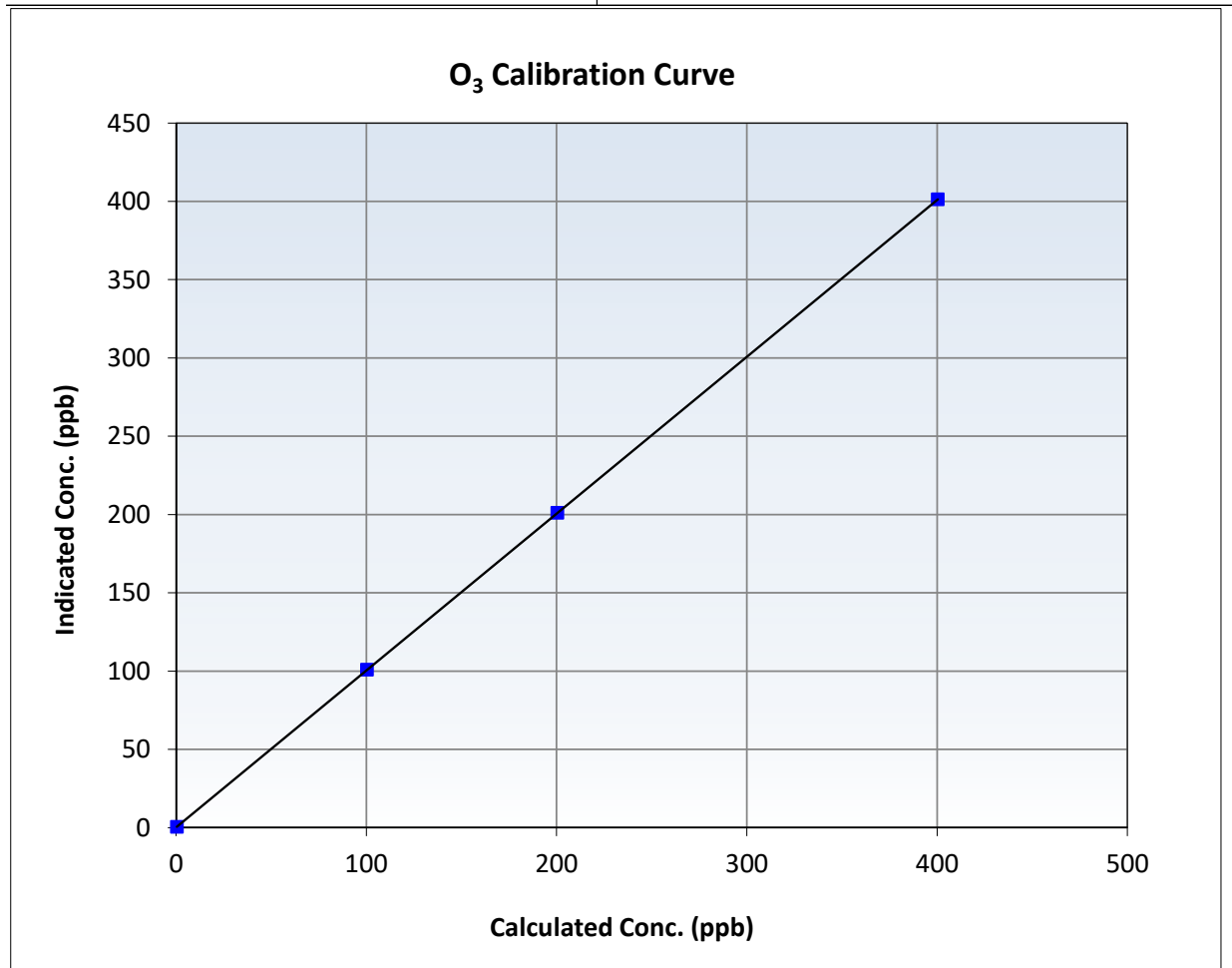
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 13, 2026
Station Name:	Wapasu	Station Number:	AMS17
Start Time (MST):	9:55	End Time (MST):	13:01
Analyzer make:	Thermo Scientific 49i	Analyzer serial #:	1501663734

### Calibration Data

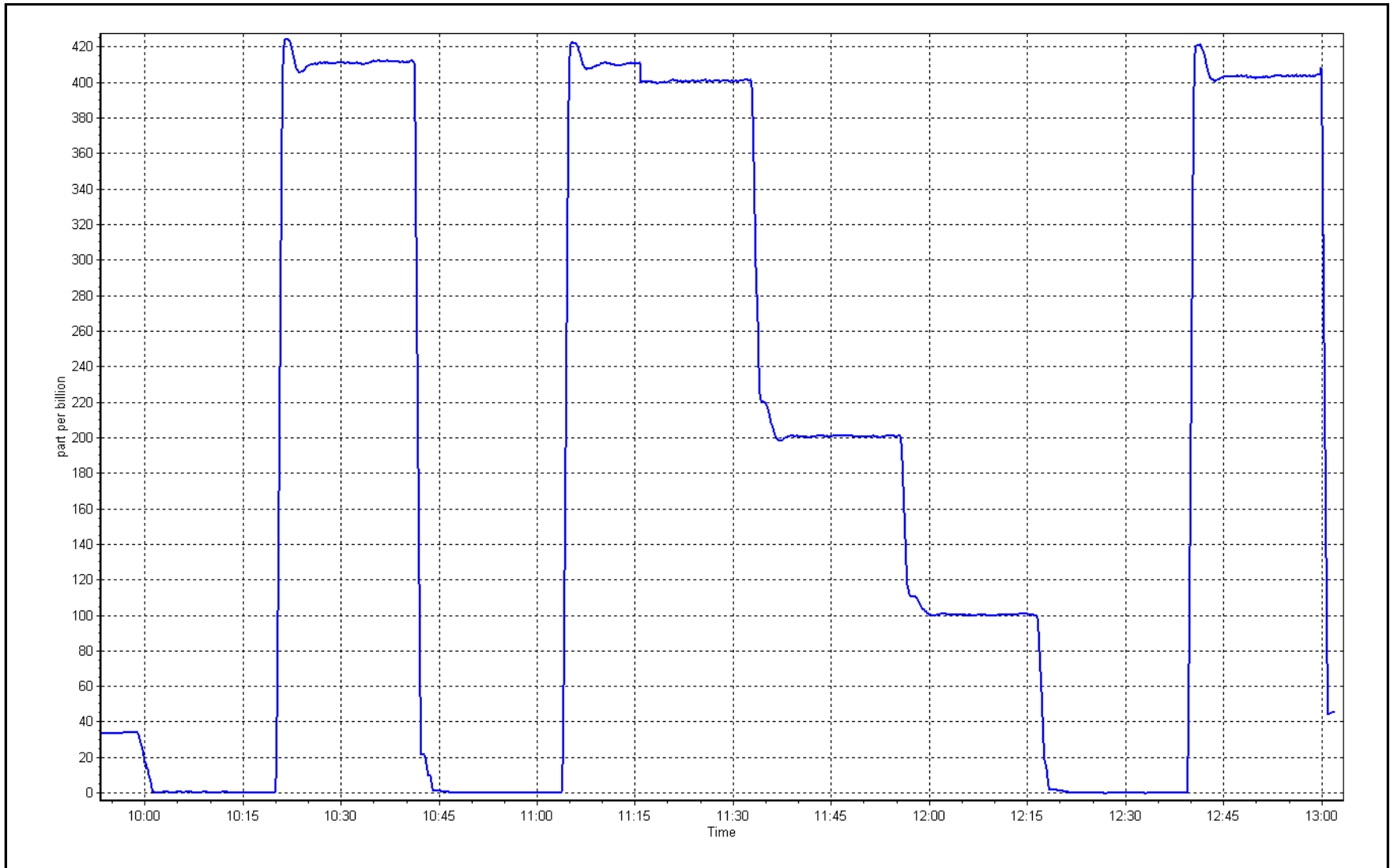
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	1.000000	<span style="color: red;">≥0.995</span>
400.0	400.8	0.9980	Slope	1.001714	<span style="color: red;">0.90 - 1.10</span>
200.0	200.7	0.9965	Intercept	0.200000	<span style="color: red;">+/- 5</span>
100.0	100.4	0.9960			



O<sub>3</sub> Calibration Plot

Date: May 5, 2026

Location: Wapasu





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Wapasu Station number: AMS 17  
 Calibration Date: May 12, 2026 Last Cal Date: April 14, 2026  
 Start time (MST): 10:25 End time (MST): 10:40

Analyzer Make: Teledyne API T640 S/N: 1183  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745  
 Temp/RH standard: Alicat FP-25BT S/N: 388745

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	16.90	16.50	16.90	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	714.40	717.55	714.40	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.00	4.93	5.00	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	33	----	33	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	2.10	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: **10.9** Expiry Date: January 30, 2027  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: \_\_\_\_\_ March 26, 2026  
 Date Disposable Filter Changed: \_\_\_\_\_ March 26, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: \_\_\_\_\_ July 21, 2025  
 Date RH/T Sensor Cleaned: \_\_\_\_\_ July 21, 2025

### Notes:

Verified flow, pressure, temperature and pump power. No adjustments made. Leak check passed.

Calibration by: Param Kaur



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS18 STONY MOUNTAIN MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Stony Mountain	Station number:	AMS 18
Calibration Date:	May 19, 2026	Last Cal Date:	April 30, 2026
Start time (MST):	11:22	End time (MST):	15:00
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	51.22	ppm	Cal Gas Exp Date:	October 9, 2023
Cal Gas Cylinder #:	CC417455			
Removed Cal Gas Conc:	51.22	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	CC417455		Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	2658
Zero Air Gen Model:	Teledyne API 701		Serial Number:	4890

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	JC1501301453
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.012380	1.001885	Backgd or Offset:	27.1	27.1
Calibration intercept:	0.002385	-1.097682	Coeff or Slope:	0.824	0.812

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4921	78.1	800.2	809.7	0.988
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	809.6	Previous response	810.1	*% change	-0.1%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4921	78.1	800.2	801.3	0.999
Mid point	4960	39.1	400.6	399.6	1.003
Low point	4981	19.5	199.7	197.6	1.011
As left zero	5000	0.0	0.0	0.5	----
As left span	4921	78.1	800.2	803.3	0.996
Average Correction Factor:					1.004

Notes: Changed the inlet filter after as founds. Adjusted span only.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

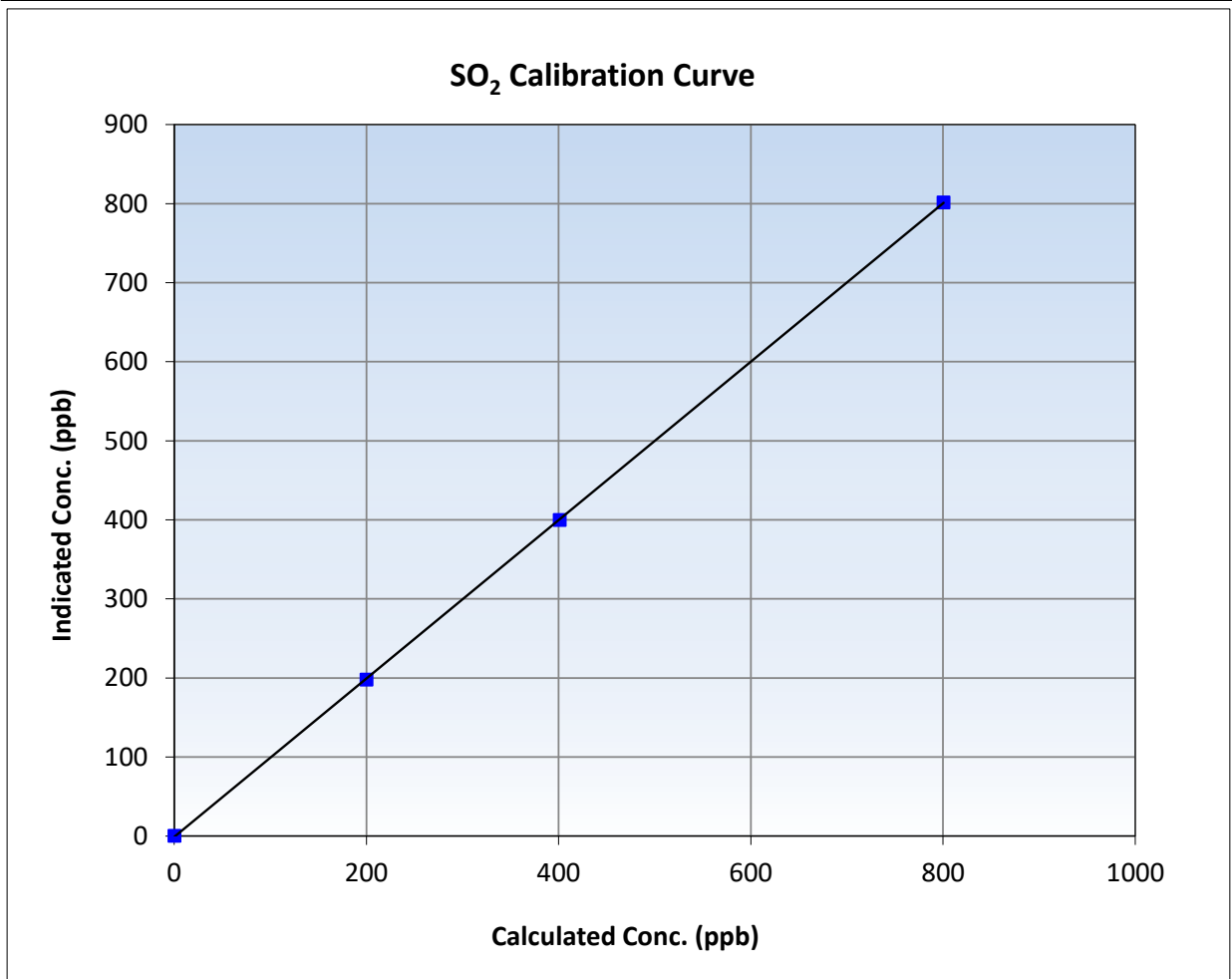
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 30, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	11:22	End Time (MST):	15:00
Analyzer make:	Thermo 43i	Analyzer serial #:	JC1501301453

### Calibration Data

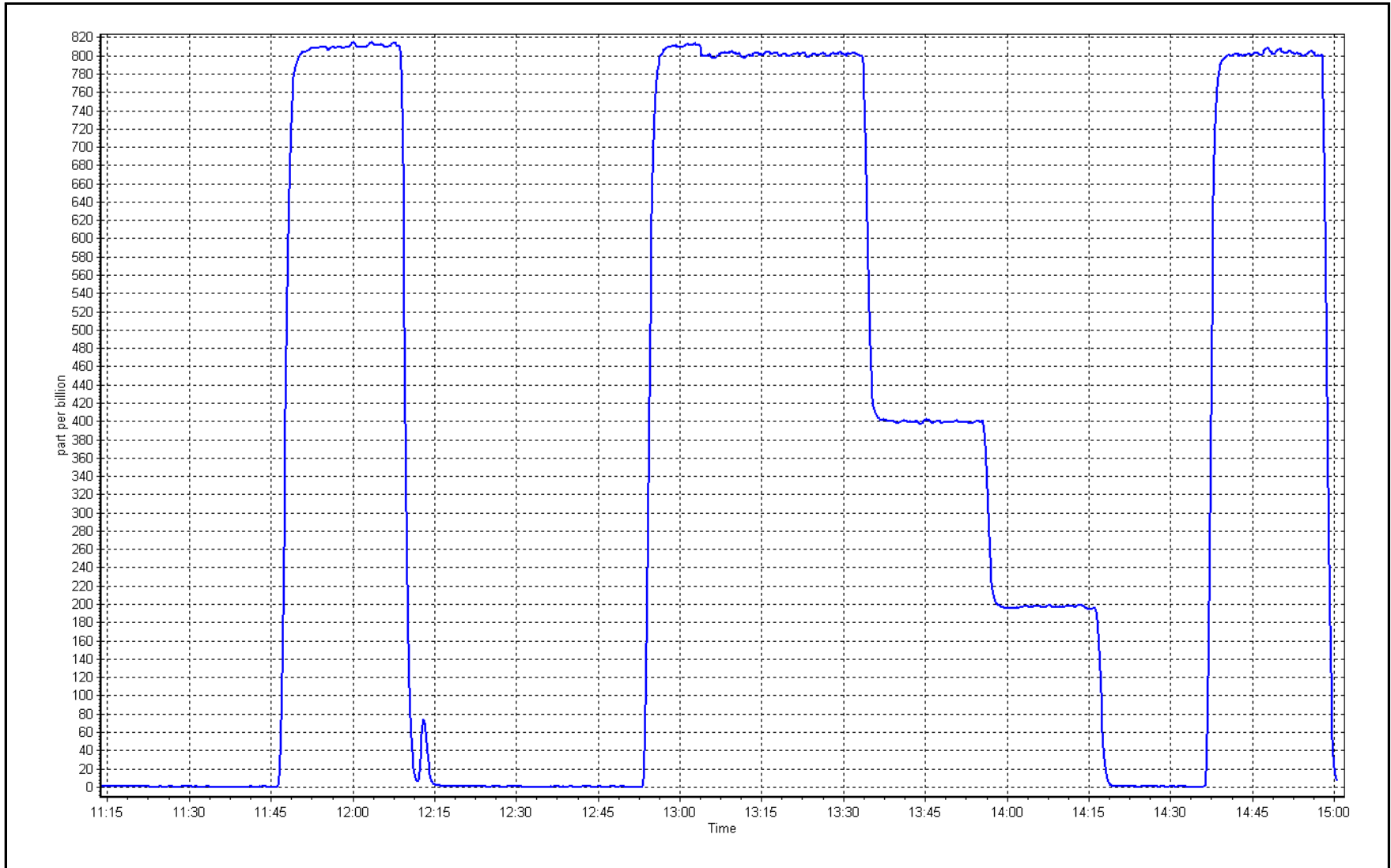
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.3	----	Correlation Coefficient	0.999986	<b>≥0.995</b>
800.2	801.3	0.9986	Slope	1.001885	<b>0.90 - 1.10</b>
400.6	399.6	1.0025	Intercept	-1.097682	<b>+/-30</b>
199.7	197.6	1.0108			



SO2 Calibration Plot

Date: May 19, 2026

Location: Stony Mountain





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Stony Mountain	Station number:	AMS18
Calibration Date:	May 25, 2026	Last Cal Date:	April 13, 2026
Start time (MST):	10:48	End time (MST):	15:49
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.86	ppm	Cal Gas Exp Date:	May 9, 2027
Cal Gas Cylinder #:	CC523103			
Removed Cal Gas Conc:	4.86	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	2658
ZAG Make/Model:	Teledyne API T701		Serial Number:	4890

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153359
Converter make:	CD Nova CDN-101	Converter serial #:	555
Analyzer Range	0 - 100 ppb	Converter Temp:	800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002801	1.003801	Backgd or Offset:	2.91	2.96
Calibration intercept:	0.080808	0.120770	Coeff or Slope:	1.159	1.178

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4917	82.3	80.0	81.4	0.983
As found Mid point	4958	41.2	40.1	40.6	0.987
As found Low point	4979	20.6	20.0	19.9	1.006
New cylinder response					
Baseline Corr As found:	81.4	Prev response:	80.31	*% change:	1.3%
Baseline Corr 2nd AF pt:	40.6	AF Slope:	1.019226	AF Intercept:	-0.219421
Baseline Corr 3rd AF pt:	19.9	AF Correlation:	0.999962	<i>* = &gt; +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4917	82.3	80.0	80.4	0.995
Mid point	4958	41.2	40.1	40.5	0.989
Low point	4979	20.6	20.0	20.0	1.001
As left zero	5000	0.0	0.0	0.3	----
As left span	4917	82.3	80.0	80.2	0.998
SO2 Scrubber Check	4923	77.1	771.0	0.0	----
Date of last scrubber change:		17-Dec-21		Ave Corr Factor	0.995
Date of last converter efficiency test:					

Notes: Changed the inlet filter and pump after as founds. Adjusted span only.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

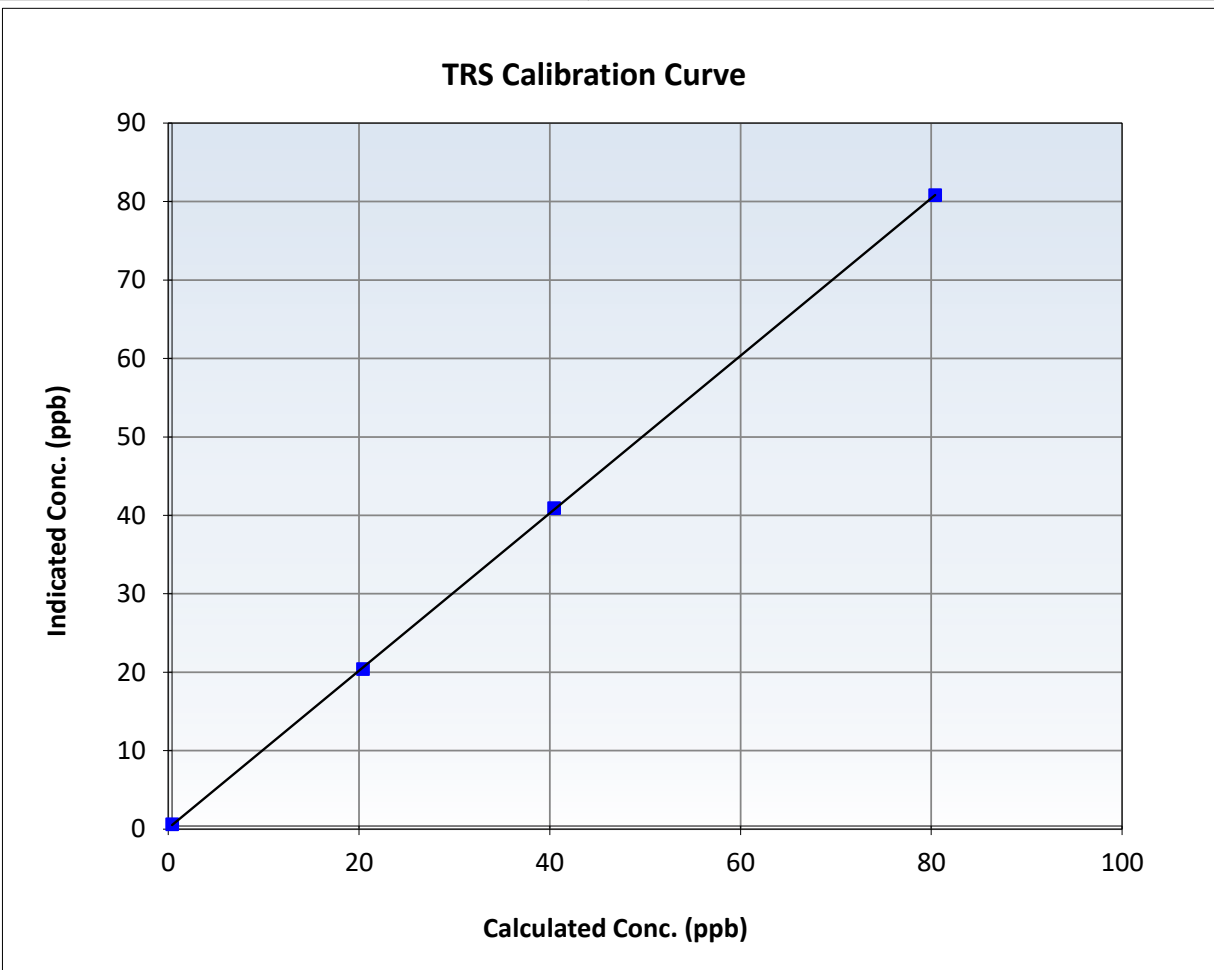
## TRS Calibration Summary

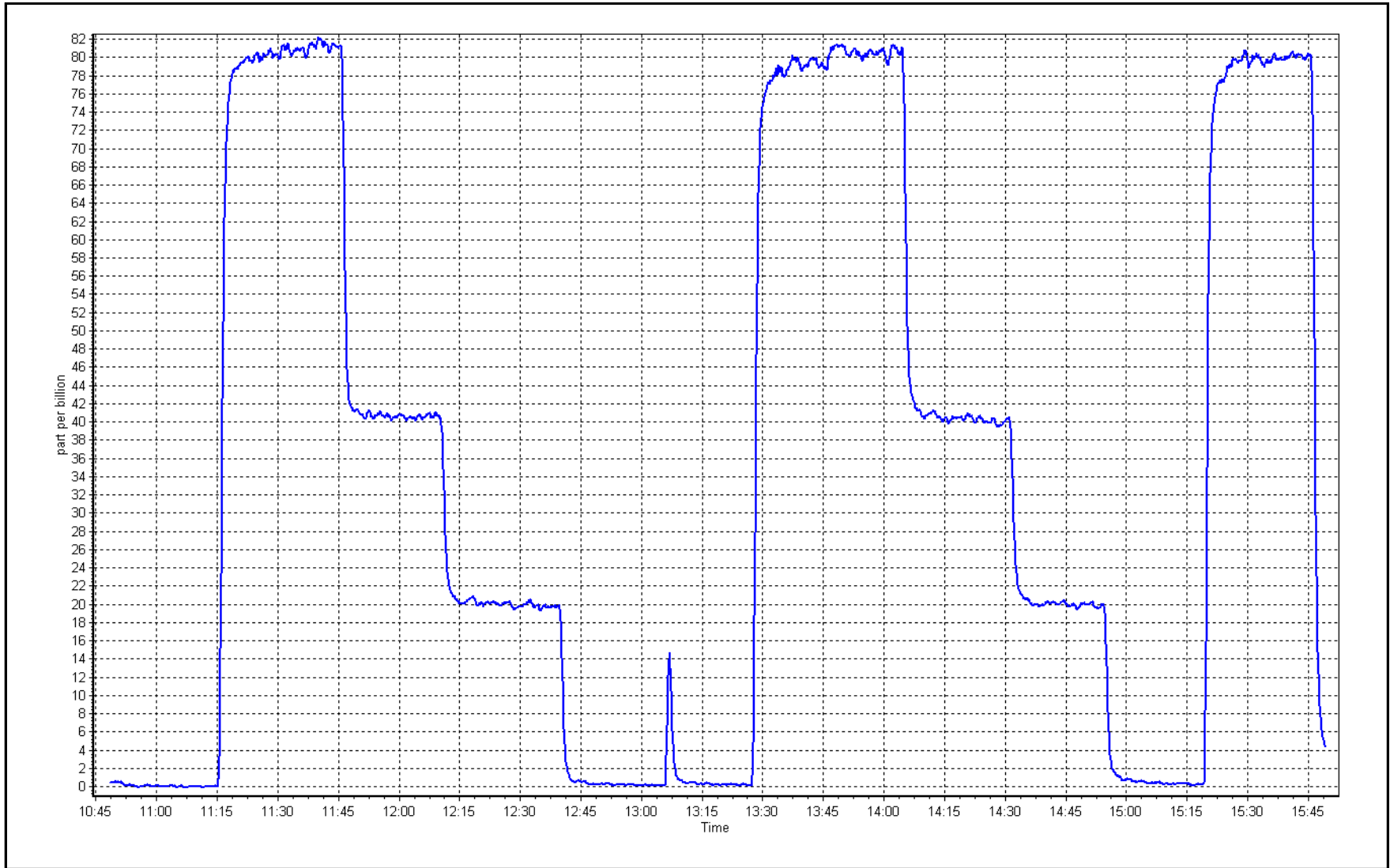
### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 13, 2026
Station Name:	Stony Mountain	Station Number:	AMS18
Start Time (MST):	10:48	End Time (MST):	15:49
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1218153359

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999975	$\geq 0.995$
80.0	80.4	0.9951	Slope	1.003801	$0.90 - 1.10$
40.1	40.5	0.9890	Intercept	0.120770	$\pm 3$
20.0	20.0	1.0012			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Stony Mountain	Station number:	AMS 18
Calibration Date:	May 19, 2026	Last Cal Date:	April 30, 2026
Start time (MST):	11:22	End time (MST):	15:00
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	XC026809B	Cal Gas Expiry Date:	January 12, 2029
CH4 Cal Gas Conc.	504.9 ppm	CH4 Equiv Conc.	1076.6 ppm
C3H8 Cal Gas Conc.	207.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	504.9 ppm	CH4 Equiv Conc.	1076.6 ppm
Removed C3H8 Conc.	207.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700	Serial Number:	2658
Zero Air Gen model:	Teledyne API T701	Serial Number:	4890

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1170050130
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.89E-04	2.84E-04	NMHC SP Ratio:	4.60E-05	4.75E-05
CH4 Retention time:	15.0	14.8	NMHC Peak Area:	194088	187959
Zero Chromatogram:	OFF	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.02	----
As found High point	4921	78.1	16.82	16.89	0.997
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.88	Prev response	16.82	*% change	0.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	78.1	16.82	16.87	0.997
Mid point	4960	39.1	8.42	8.38	1.004
Low point	4981	19.5	4.20	4.12	1.020
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	78.1	16.82	16.98	0.991
Average Correction Factor					1.007

Notes: Changed the inlet filter after as founds. Adjusted both zero and span.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	78.1	8.93	8.97	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.97	Prev response	8.94	*% change	0.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	78.1	8.93	8.95	0.999
Mid point	4960	39.1	4.47	4.45	1.005
Low point	4981	19.5	2.23	2.20	1.016
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	78.1	8.93	9.02	0.990
Average Correction Factor					1.006

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.02	----
As found High point	4921	78.1	7.89	7.92	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.90	Prev response	7.88	*% change	0.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	78.1	7.89	7.92	0.995
Mid point	4960	39.1	3.95	3.93	1.005
Low point	4981	19.5	1.97	1.92	1.023
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	78.1	7.89	7.96	0.991
Average Correction Factor					1.008

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.999868	1.004330
THC Cal Offset:	0.003462	-0.049131
CH <sub>4</sub> Cal Slope:	0.998770	1.006390
CH <sub>4</sub> Cal Offset:	0.004019	-0.028780
NMHC Cal Slope:	1.001194	1.002562
NMHC Cal Offset:	-0.001956	-0.020550

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

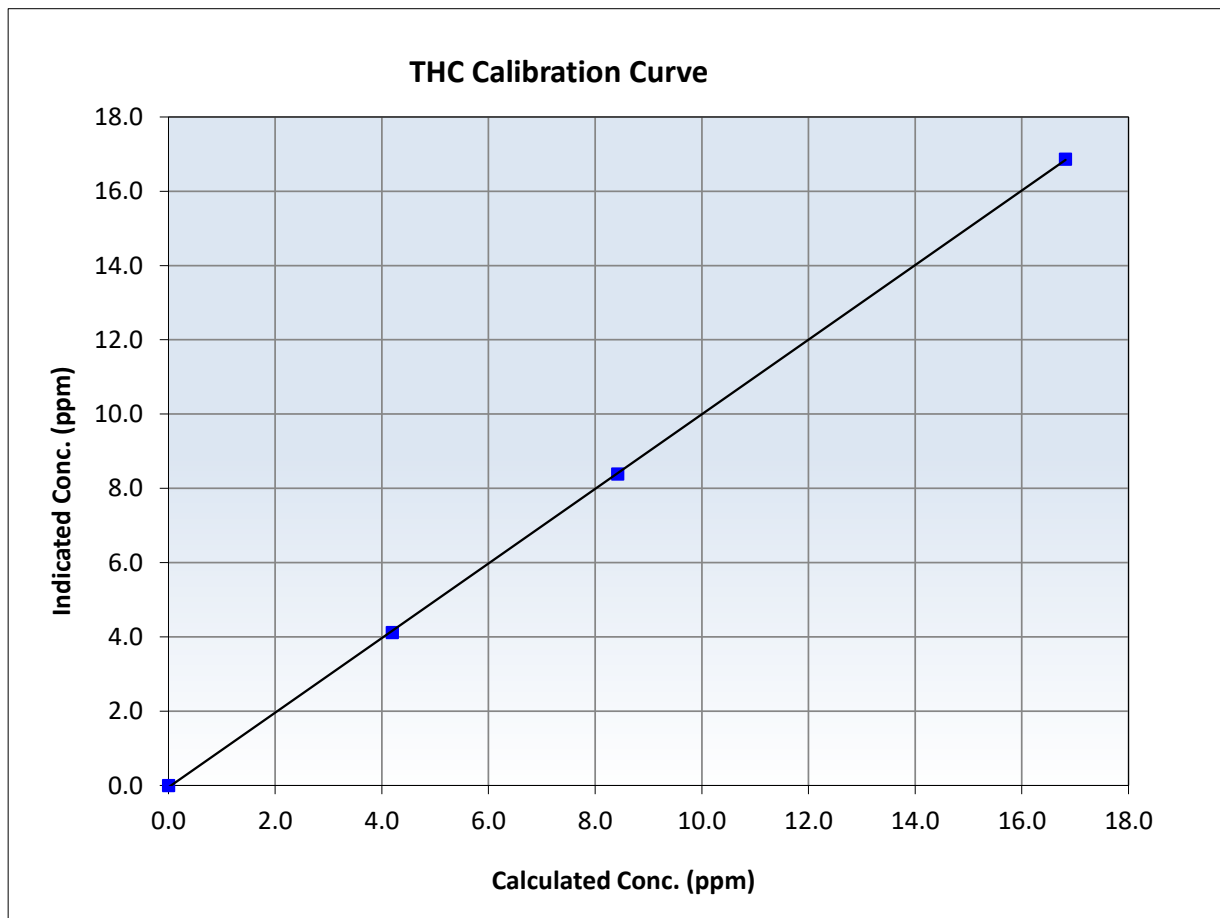
## THC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 30, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	11:22	End Time (MST):	15:00
Analyzer make:	Thermo 55i	Analyzer serial #:	1170050130

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999961	<i>≥0.995</i>
16.82	16.87	0.9971	Slope	1.004330	<i>0.90 - 1.10</i>
8.42	8.38	1.0044	Intercept	-0.049131	<i>+/-0.5</i>
4.20	4.12	1.0195			





# Wood Buffalo Environmental Association

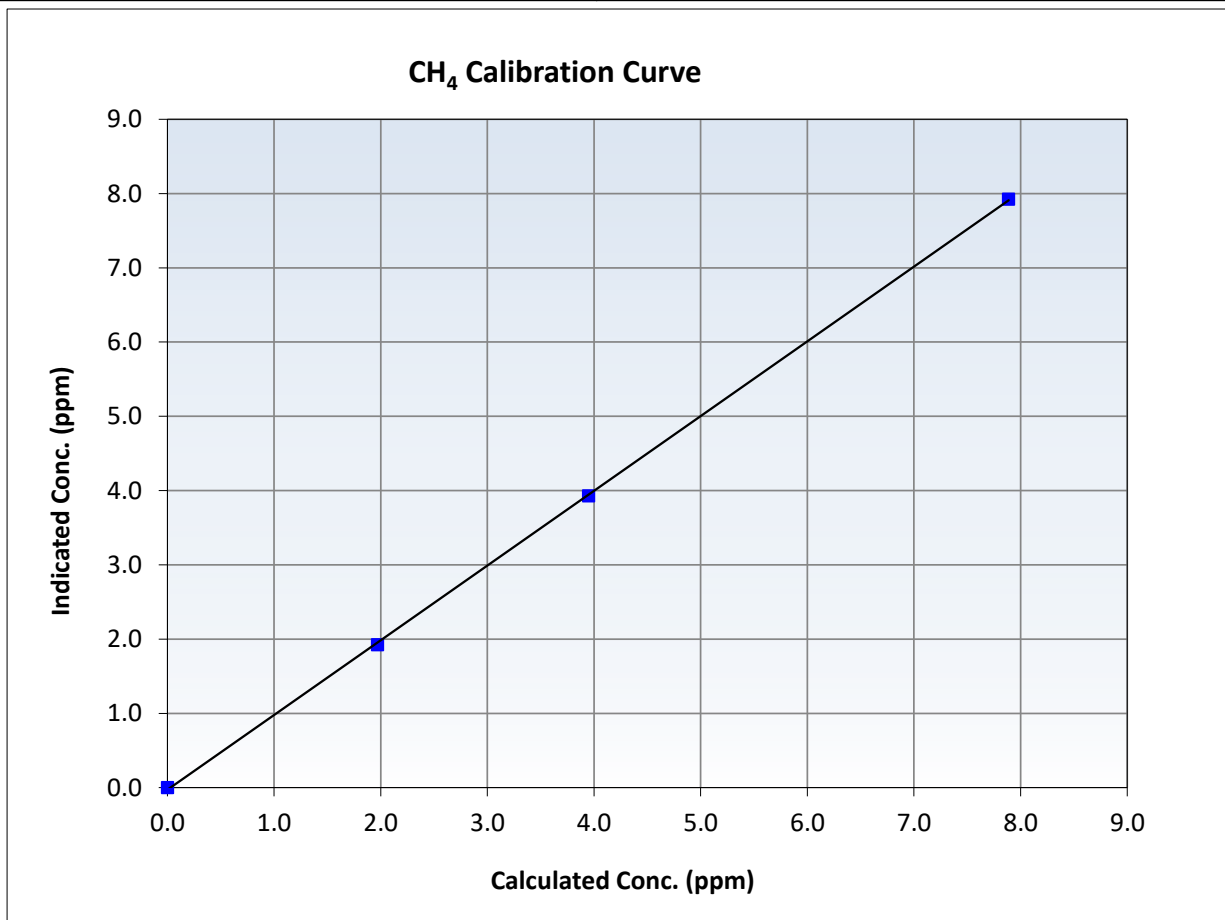
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 30, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	11:22	End Time (MST):	15:00
Analyzer make:	Thermo 55i	Analyzer serial #:	1170050130

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999940	<i>≥0.995</i>
7.89	7.92	0.9955	Slope	1.006390	<i>0.90 - 1.10</i>
3.95	3.93	1.0046	Intercept	-0.028780	<i>+/-0.5</i>
1.97	1.92	1.0233			





# Wood Buffalo Environmental Association

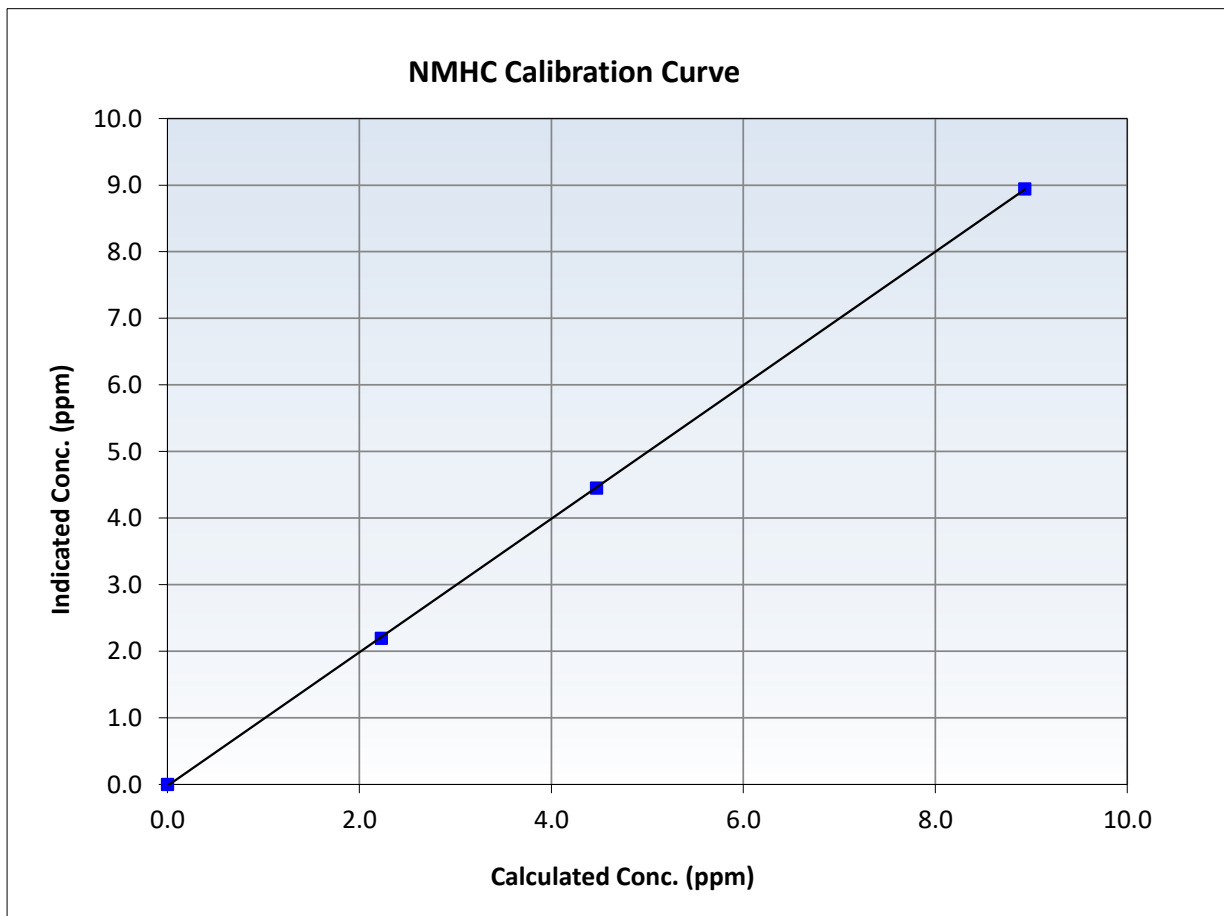
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 30, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	11:22	End Time (MST):	15:00
Analyzer make:	Thermo 55i	Analyzer serial #:	1170050130

### Calibration Data

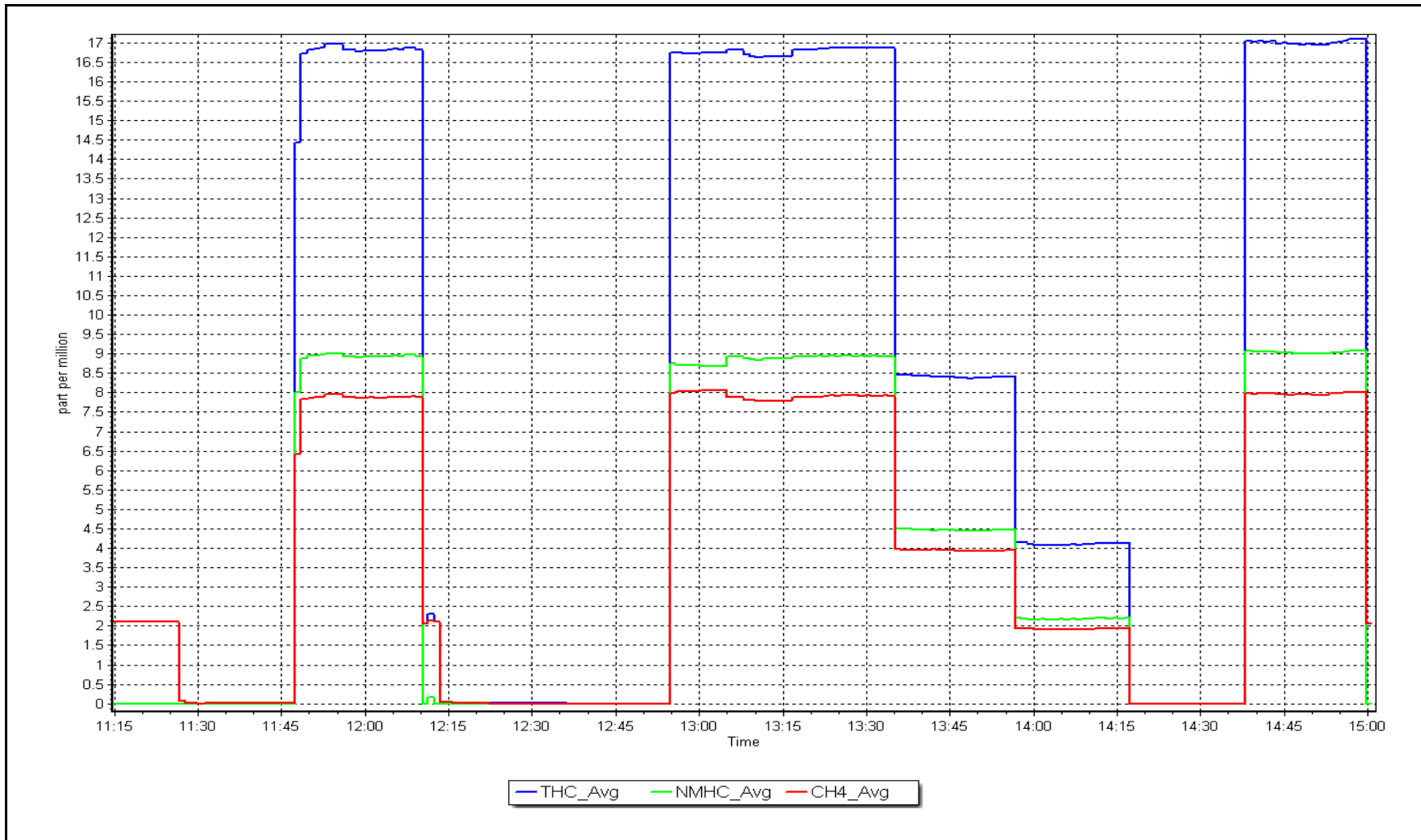
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999976	<i>≥0.995</i>
8.93	8.95	0.9985	Slope	1.002562	<i>0.90 - 1.10</i>
4.47	4.45	1.0046	Intercept	-0.020550	<i>+/-0.5</i>
2.23	2.20	1.0157			



NMHC Calibration Plot

Date: May 19, 2026

Location: Stony Mountain





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Stony Mountain  
 Station number: AMS 18  
 Calibration Date: May 11, 2026  
 Last Cal Date: April 8, 2026  
 Start time (MST): 10:47  
 End time (MST): 15:37  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0045516  
 NOX Cal Gas Conc: 60.30 ppm  
 Removed Cylinder #: N/A  
 Removed Gas NOX Conc: 60.30 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API 701  
 Cal Gas Expiry Date: November 17, 2026  
 NO Cal Gas Conc: 60.10 ppm  
 Removed Gas Exp Date: N/A  
 Removed Gas NO Conc: 60.10 ppm  
 NO gas Diff:  
 Serial Number: 2658  
 Serial Number: 4890

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	0.1	0.0	----	----
AF High point	4933	66.6	803.3	800.6	2.7	779.2	773.8	5.3	1.0310	1.0348
AF Mid point										
AF Low point										
New cyl resp										
Previous Respo 4933	NO <sub>x</sub> = 800.7 ppb	NO = 798.2 ppb	<i>* = &gt; +/-5% change initiates investigation</i>				*Percent Change	NO <sub>x</sub> = -2.8%		
Baseline Corr 1st pt	NO <sub>x</sub> = 779.1 ppb	NO = 773.7 ppb	<u>As Found Statistics</u>				*Percent Change	NO = -3.2%		
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :		Nx SI:	Nx Int:			
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :		NO SI:	NO Int:			
			As found	NO <sub>2</sub> r <sup>2</sup> :		NO <sub>2</sub> SI:	NO <sub>2</sub> Int:			

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo Scientific 42i      Serial Number: 1501663731  
 NOX Range (ppb): 0 - 1000 ppb

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.127	1.152	NO bkgnd or offset:	11.2	11.4
NOX coeff or slope:	1.000	1.000	NOX bkgnd or offset:	11.3	11.5
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	218.3	218.6

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.998198	0.999918
NO <sub>x</sub> Cal Offset:	-1.128679	-0.207802
NO Cal Slope:	0.999781	1.000194
NO Cal Offset:	-2.269756	-1.289379
NO <sub>2</sub> Cal Slope:	0.998008	1.025972
NO <sub>2</sub> Cal Offset:	0.514691	-1.143539

### Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.2	0.3	0.0	----	----
High point	4933	66.6	803.3	800.6	2.7	803.2	800.2	3.0	1.0001	1.0005
Mid point	4967	33.3	401.6	400.2	1.3	401.1	398.4	2.6	1.0012	1.0046
Low point	4983	16.6	200.2	199.5	0.7	199.6	196.6	3.0	1.0031	1.0150
As left zero	5000	0.0	0.0	0.0	0.0	0.3	0.2	0.1	----	----
As left span	4933	66.6	803.3	382.0	421.3	799.5	382.0	417.5	1.0047	1.0000
Average Correction Factor									1.0014	1.0067

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	804.4	389.2	417.9	428.9	0.9743	102.6%
Mid GPT point	804.4	606.0	201.1	202.1	0.9949	100.5%
Low GPT point	804.4	706.7	100.4	102.4	0.9801	102.0%
Average Correction Factor					0.9831	101.7%

Notes:

Changed the inlet filter after as founds. Adjusted span only.

Calibration Performed By:

Mohammed Kashif



# Wood Buffalo Environmental Association

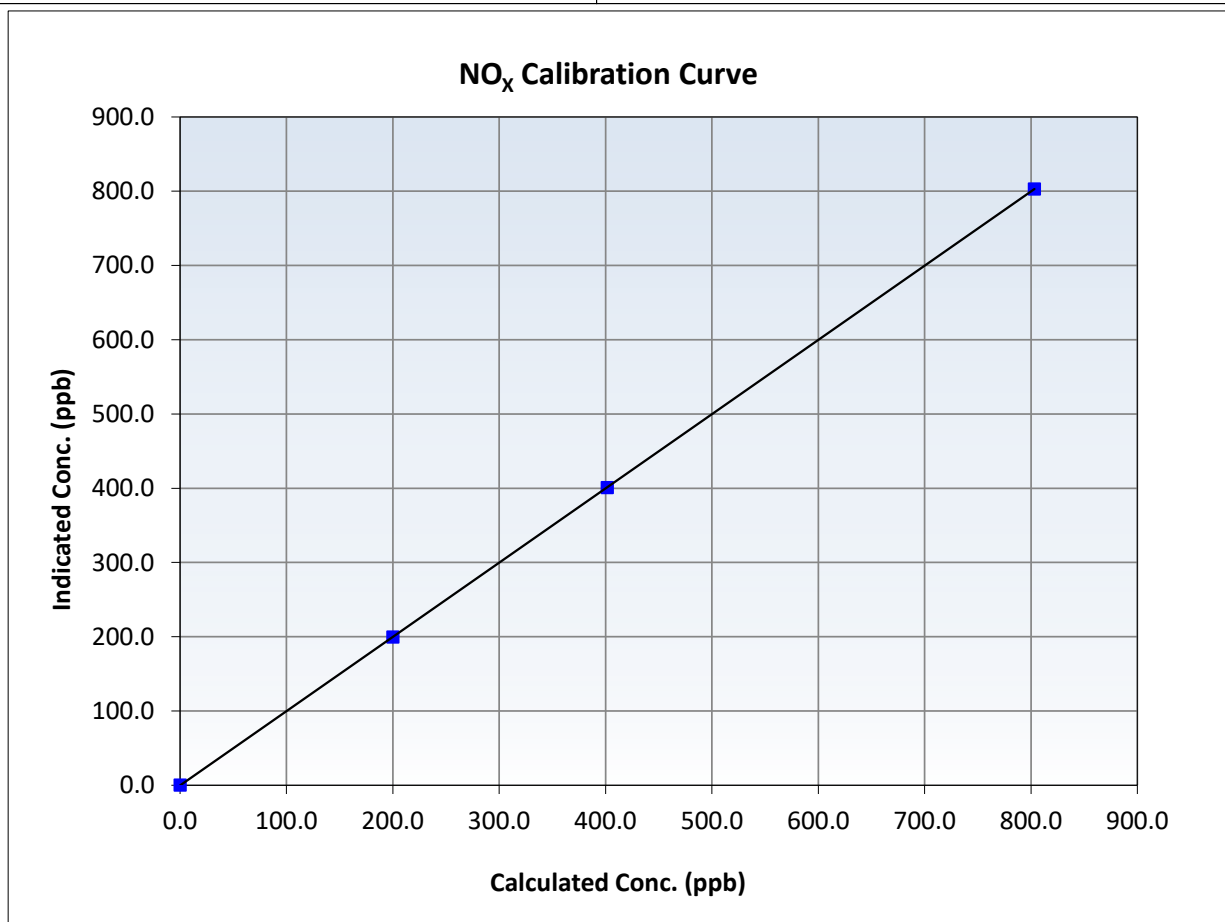
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:47	End Time (MST):	15:37
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1501663731

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999999	≥0.995
803.3	803.2	1.0001	Slope	0.999918	0.90 - 1.10
401.6	401.1	1.0012	Intercept	-0.207802	+/-20
200.2	199.6	1.0031			





# Wood Buffalo Environmental Association

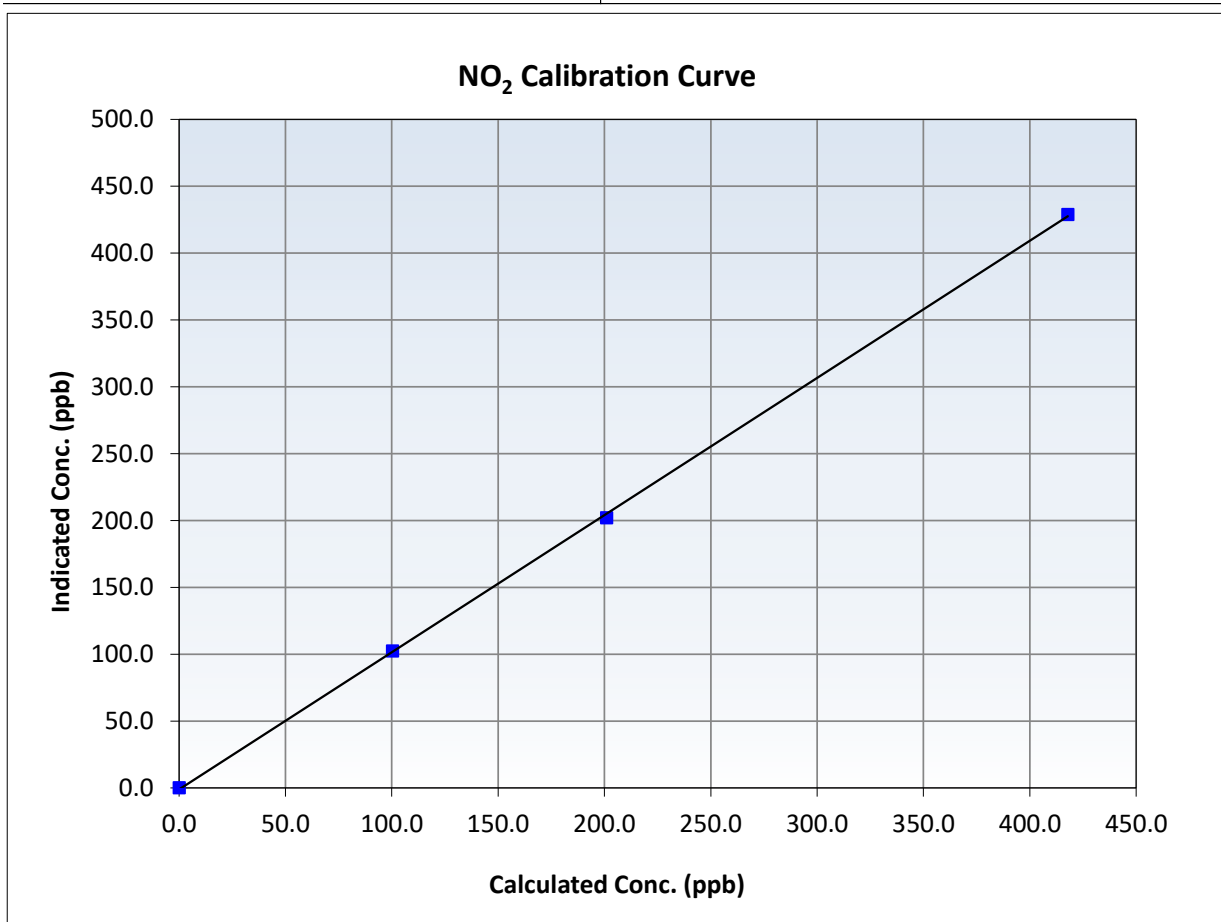
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:47	End Time (MST):	15:37
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1501663731

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999874	<i>≥0.995</i>
417.9	428.9	0.9743	Slope	1.025972	<i>0.90 - 1.10</i>
201.1	202.1	0.9949	Intercept	-1.143539	<i>+/-20</i>
100.4	102.4	0.9801			





# Wood Buffalo Environmental Association

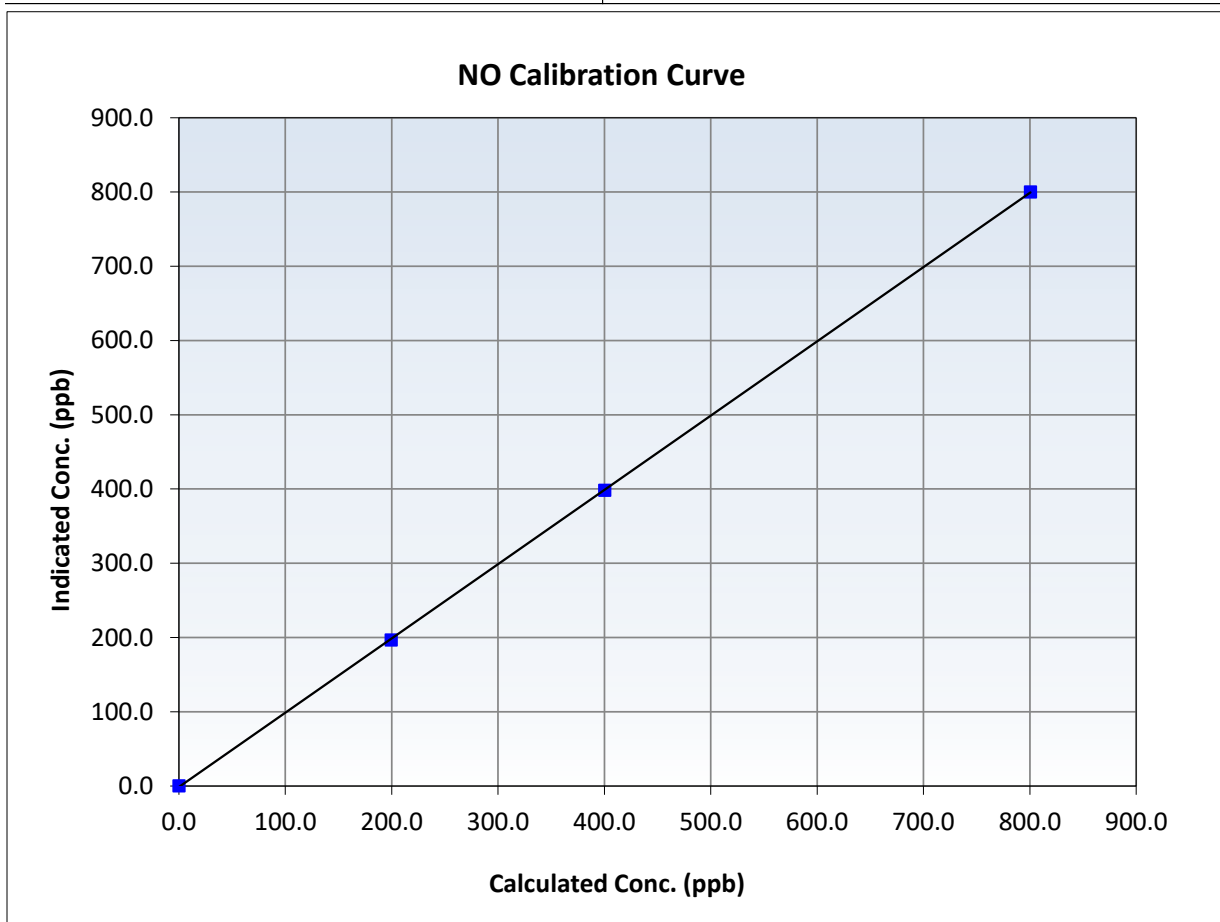
## NO Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:47	End Time (MST):	15:37
Analyzer make:	Thermo Scientific 42i	Analyzer serial #:	1501663731

### Calibration Data

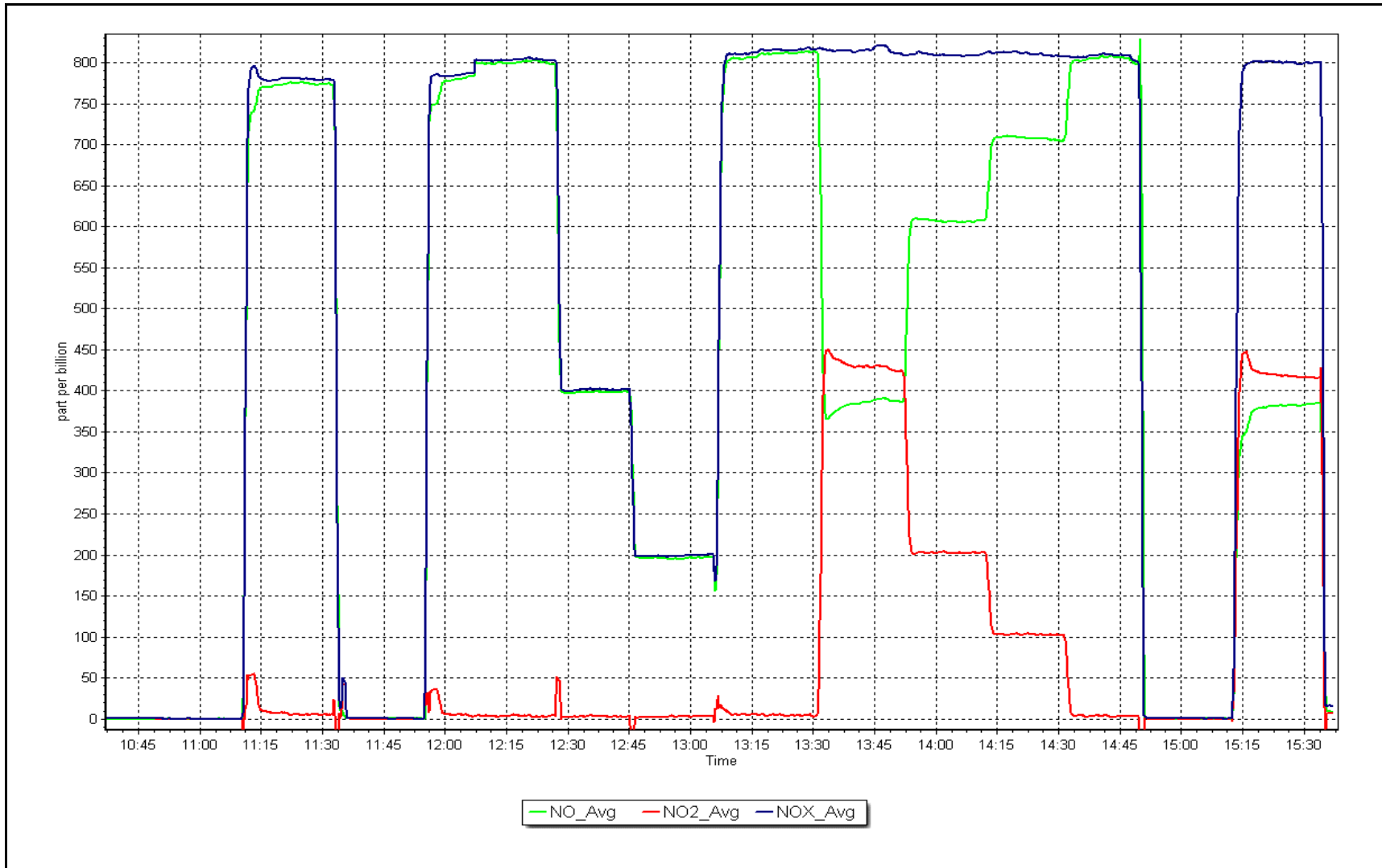
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.3	----	Correlation Coefficient	0.999982	<i>≥0.995</i>
800.6	800.2	1.0005	Slope	1.000194	<i>0.90 - 1.10</i>
400.2	398.4	1.0046	Intercept	-1.289379	<i>+/-20</i>
199.5	196.6	1.0150			



NO<sub>x</sub> Calibration Plot

Date: May 11, 2026

Location: Stony Mountain





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Stony Mountain	Station number:	AMS 18
Calibration Date:	May 21, 2026	Last Cal Date:	April 1, 2026
Start time (MST):	10:48	End time (MST):	14:20
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	2658
Calibrator Make/Model:	Teledyne API T700	Serial Number:	4890
ZAG Make/Model:	Teledyne API 701H		

### Analyzer Information

Analyzer make:	API T400	Analyzer serial #:	825
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997971	1.010486	Backgd or Offset:	2.7
Calibration intercept:	0.680000	-0.660000	Coeff or Slope:	0.967
				4.3
				0.984

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	NA	0.0	0.9	----
As found High point	4888	1155.7	400.0	396.9	1.010
As found Mid point					
As found Low point					
Baseline Corr As found:	396.0	Previous response	399.9	*% change	-1.0%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	NA	0.0	-0.5	----
High point	4888	1155.7	400.0	403.6	0.991
Mid point	4888	894.4	200.0	201.4	0.993
Low point	4888	762.7	100.0	100.2	0.998
As left zero	5000	NA	0.0	-0.5	----
As left span	4812	1155.7	400.0	403.6	0.991
Average Correction Factor					0.994

Notes: Sample inlet filter changed and adjusted both zero and span.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

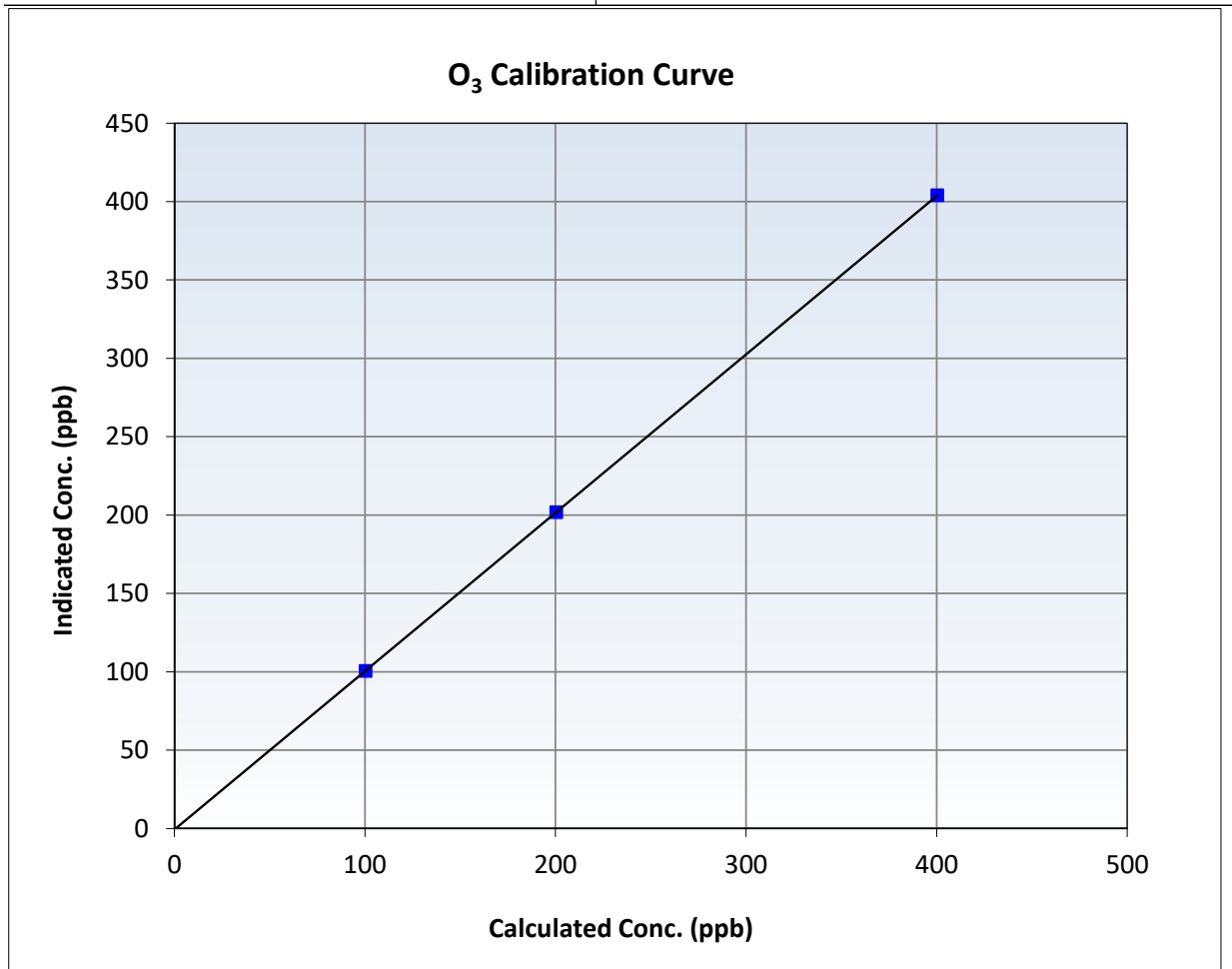
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 1, 2026
Station Name:	Stony Mountain	Station Number:	AMS 18
Start Time (MST):	10:48	End Time (MST):	14:20
Analyzer make:	API T400	Analyzer serial #:	825

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.5	----	Correlation Coefficient	0.999999	<span style="color: red;">≥0.995</span>
400.0	403.6	0.9911	Slope	1.010486	<span style="color: red;">0.90 - 1.10</span>
200.0	201.4	0.9930	Intercept	-0.660000	<span style="color: red;">+/- 5</span>
100.0	100.2	0.9980			



O<sub>3</sub> Calibration Plot

Date: May 21, 2026

Location: Stony Mountain





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Stony Mountain Station number: AMS 18  
 Calibration Date: May 18, 2026 Last Cal Date: April 30, 2026  
 Start time (MST): 10:53 End time (MST): 11:30

Analyzer Make: API T640 S/N: 324  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388754  
 Temp/RH standard: Alicat FP-25 S/N: 388754

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	12.8	12.56	12.8	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	702.2	708.89	702.2	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.00	4.95	5.00	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	61	-----	61	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	3.9	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: June 10, 2024  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: January 26, 2026  
 Date Disposable Filter Changed: February 25, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: September 23, 2025  
 Date RH/T Sensor Cleaned: September 23, 2025

Notes: Removal done due to frequent connections issues. Will do further troubleshooting at the shop.

Calibration by: Jan Castro



# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Stony Mountain Station number: AMS 18  
 Calibration Date: May 18, 2026 Last Cal Date:  
 Start time (MST): 11:40 End time (MST): 12:00

Analyzer Make: API T640 S/N: 325  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388754  
 Temp/RH standard: Alicat FP-25 S/N: 388754

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	13.4	13.05	13.4	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	701.7	700.76	701.7	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.03	5.02	5.03	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	36	-----	36	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	3.2	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: June 10, 2024  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: \_\_\_\_\_ January 26, 2026  
 Date Disposable Filter Changed: \_\_\_\_\_ February 25, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: \_\_\_\_\_ September 23, 2025  
 Date RH/T Sensor Cleaned: \_\_\_\_\_ September 23, 2025

Notes: Install done. No adjustment needed. Leak check passed

Calibration by: Jan Castro



# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Stony Mountain Station number: AMS 18  
 Calibration Date: May 21, 2026 Last Cal Date: May 18, 2026  
 Start time (MST): 10:56 End time (MST): 14:17

Analyzer Make: API T640 S/N: 325  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25 S/N: 388749  
 Temp/RH standard: Alicat FP-25 S/N: 388749

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	14.98	15.8	14.98	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	701.84	701.40	701.84	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	4.98	4.96	4.98	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	35	----	35	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	2.4	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: June 10, 2024  
Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	11.1	9.9	10.9	<input checked="" type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: May 21, 2026  
Date Disposable Filter Changed: May 21, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: May 21, 2026  
Date RH/T Sensor Cleaned: May 21, 2026

Notes: The analyzer failed to restore communications following a station power outage. The unit was inspected internally and externally for water damage, with none found. Quarterly and annual maintenance were completed since the analyzer was opened, and the Ethernet/communication cable was replaced.

Calibration by: Mohammed Kashif



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS19  
FIREBAG  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Firebag	Station number:	AMS 19
Calibration Date:	May 19, 2026	Last Cal Date:	April 30, 2026
Start time (MST):	10:25	End time (MST):	13:24
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.97	ppm	Cal Gas Exp Date:	October 9, 2023
Cal Gas Cylinder #:	CC705799			
Removed Cal Gas Conc:	50.97	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	5258
Zero Air Gen Model:	Teledyne API T701H		Serial Number:	201

### Analyzer Information

Analyzer make:	Thermo 43iQTL	Serial Number:	12530443167
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000109	0.998694	Backgd or Offset:	2.10	2.13
Calibration intercept:	-1.543130	-1.322901	Coeff or Slope:	1.121	1.137

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.8	----
As found High point	4922	78.5	800.2	785.5	1.018
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	786.3	Previous response	798.8	*% change	-1.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.4	----
High point	4922	78.5	800.2	798.0	1.003
Mid point	4961	39.2	399.6	398.2	1.003
Low point	4980	19.6	199.8	196.7	1.016
As left zero	5000	0.0	0.0	-0.5	----
As left span	4922	78.5	800.2	802.2	0.998
Average Correction Factor:					1.007

Notes: Inlet filter changed after as founds. Span adjusted.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

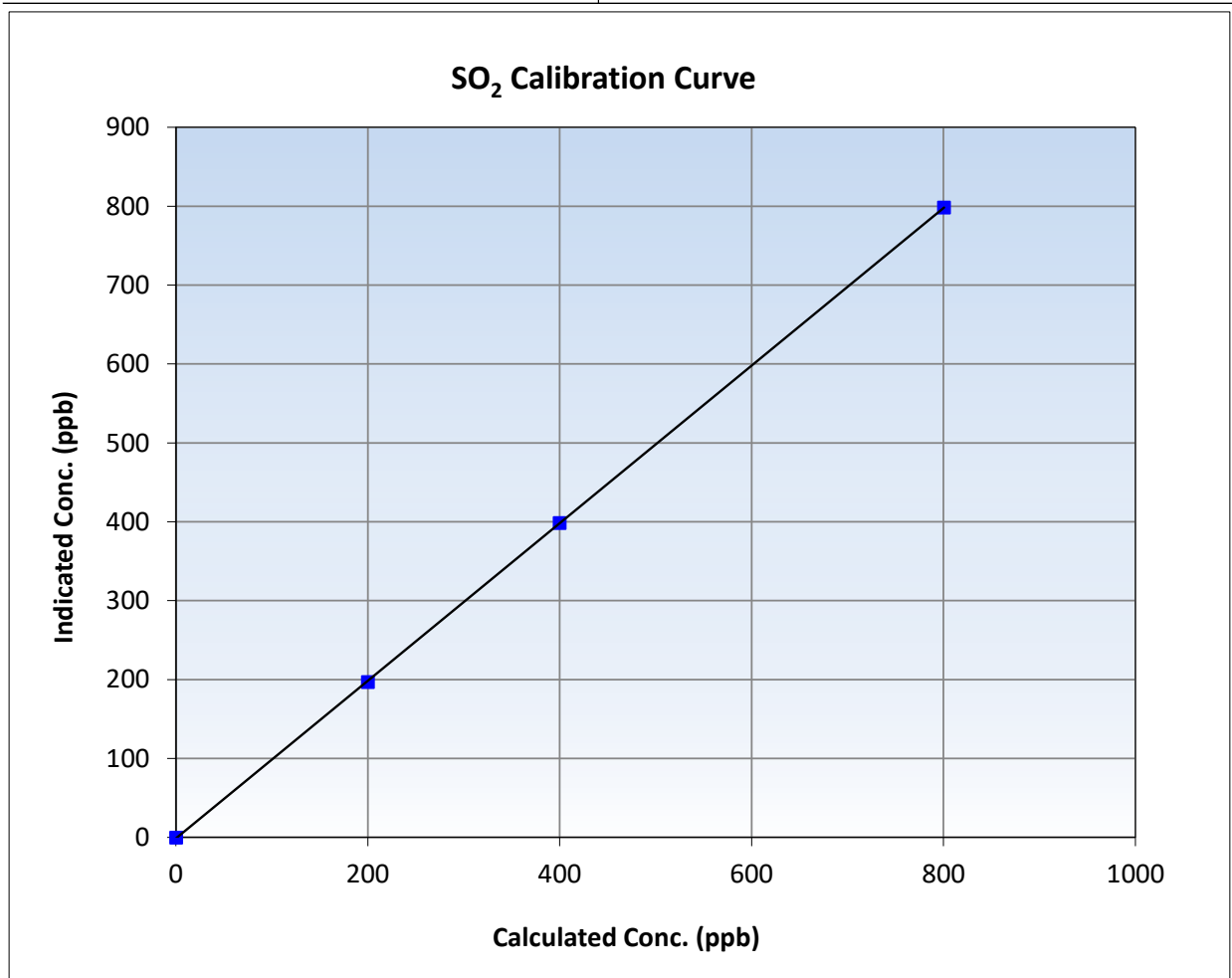
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 30, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:25	End Time (MST):	13:24
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12530443167

### Calibration Data

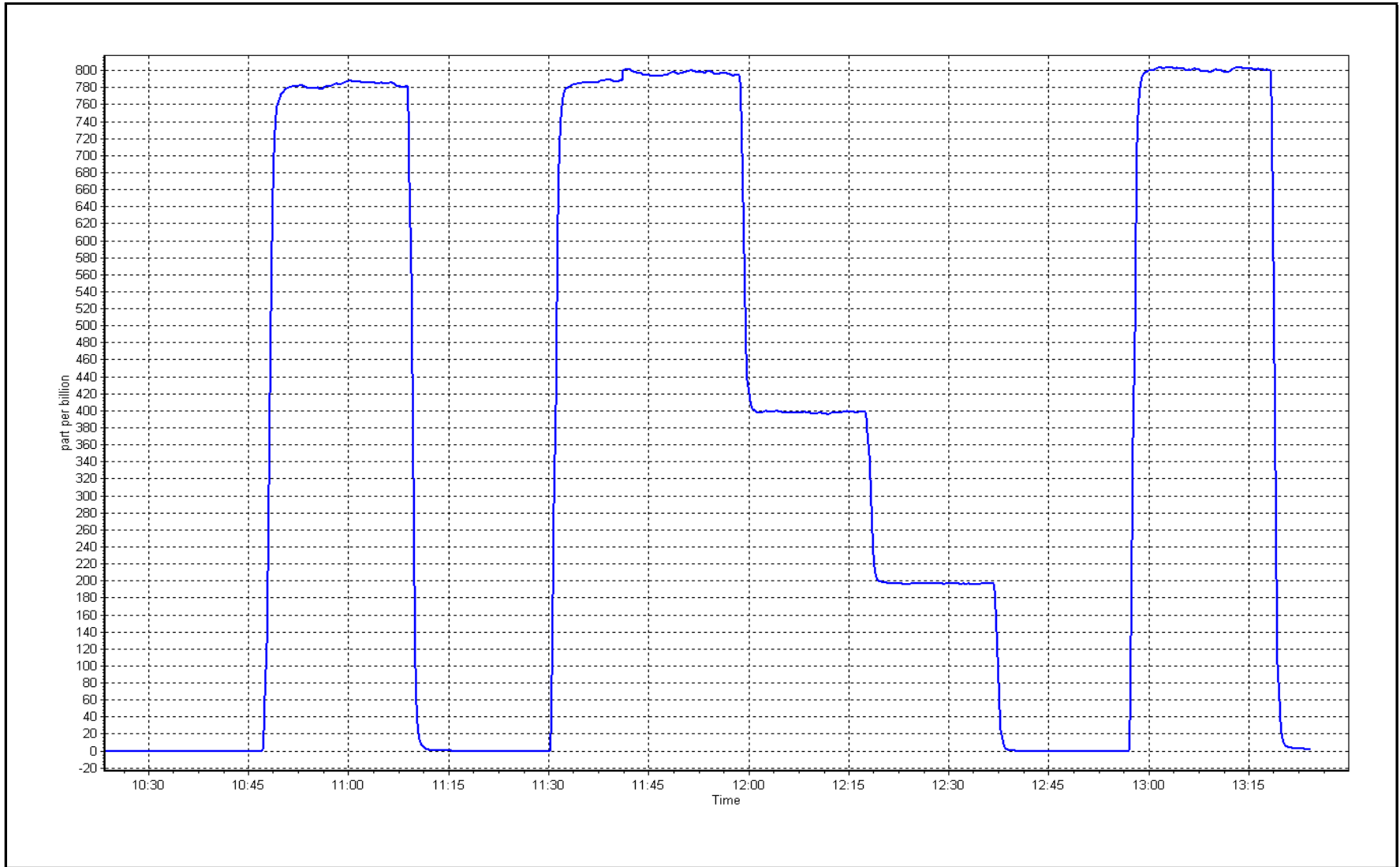
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.4	----	Correlation Coefficient	0.999990	<b>≥0.995</b>
800.2	798.0	1.0028	Slope	0.998694	<b>0.90 - 1.10</b>
399.6	398.2	1.0035	Intercept	-1.322901	<b>+/-30</b>
199.8	196.7	1.0159			



SO2 Calibration Plot

Date: May 19, 2026

Location: Firebag





# Wood Buffalo Environmental Association

## H2S Calibration Report

### Station Information

Station Name:	Firebag	Station number:	AMS 19
Calibration Date:	May 27, 2026	Last Cal Date:	April 22, 2026
Start time (MST):	9:16	End time (MST):	14:05
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.29	ppm	Cal Gas Exp Date:	March 19, 2027
Cal Gas Cylinder #:	DT0010492			
Removed Cal Gas Conc:	5.29	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	5258
ZAG Make/Model:	Teledyne API T701		Serial Number:	201

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680032
Converter make:	Global	Converter serial #:	2022-222
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.016907	1.007477	Backgd or Offset:	3.22	3.09
Calibration intercept:	-0.160000	-0.480000	Coeff or Slope:	1.258	1.208

### H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4924	75.6	80.0	84.3	0.945
As found Mid point	4962	37.8	40.0	41.6	0.954
As found Low point	4981	18.9	20.0	20.2	0.975
New cylinder response					
Baseline Corr As found:	84.6	Prev response:	81.18	*% change:	4.0%
Baseline Corr 2nd AF pt:	41.9	AF Slope:	1.059916	AF Intercept:	-0.640000
Baseline Corr 3rd AF pt:	20.5	AF Correlation:	0.999926	<i>* = +/-5% change initiates investigation</i>	

### H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4924	75.6	80.0	80.2	0.997
Mid point	4962	37.8	40.0	39.8	1.005
Low point	4981	18.9	20.0	19.3	1.036
As left zero	5000	0.0	0.0	-0.2	----
As left span	4924	75.6	80.0	79.0	1.012
SO2 Scrubber Check	4922	78.5	785.0	-0.1	----
Date of last scrubber change:	18-Jan-23		Ave Corr Factor		1.013
Date of last converter efficiency test:	November 26, 2024		106.2% efficiency		

Notes: Inlet filter changed after as founds. H2S converter moved after as founds, scrubber check passed, Span adjusted.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

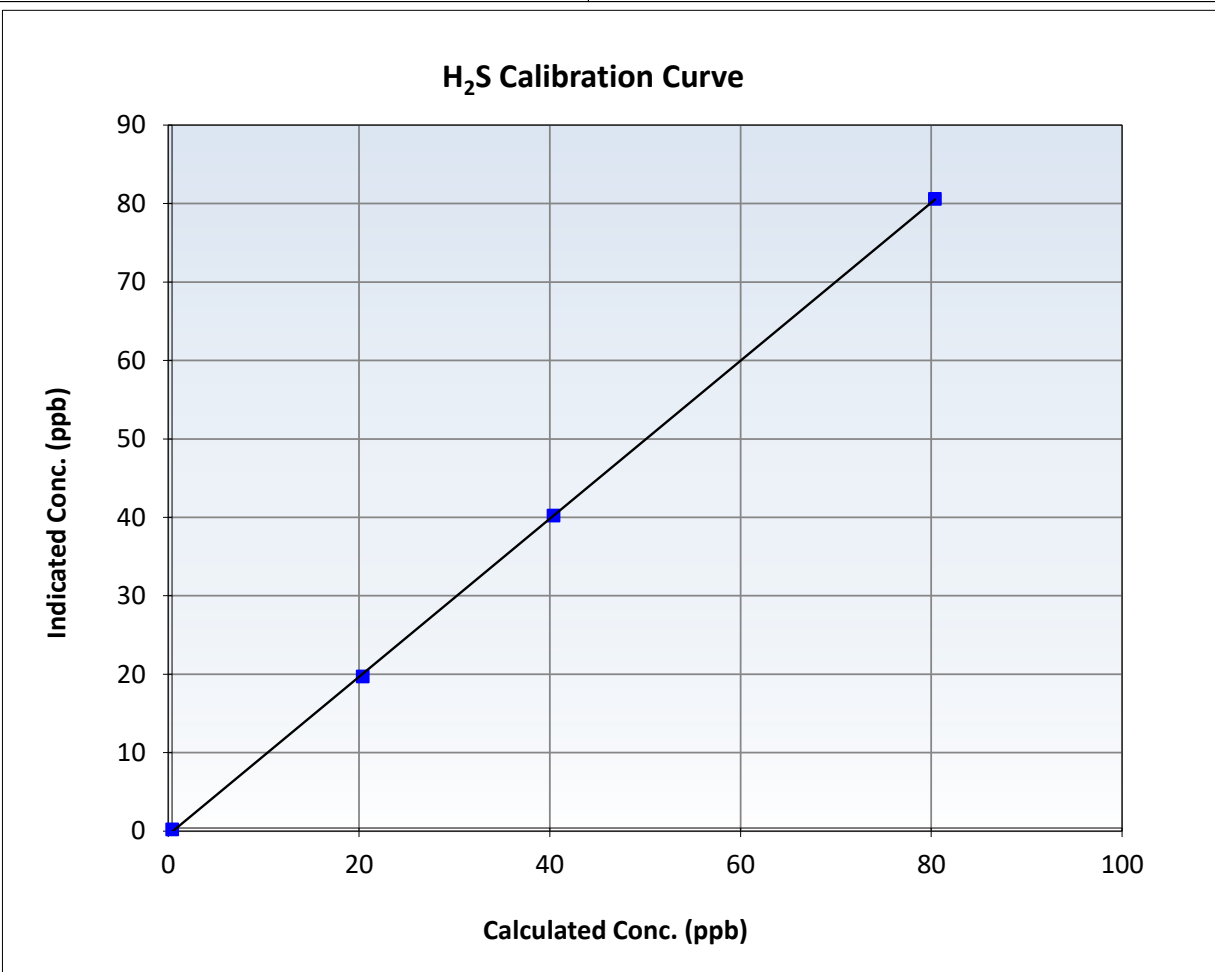
## H2S Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 22, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	9:16	End Time (MST):	14:05
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680032

### Calibration Data

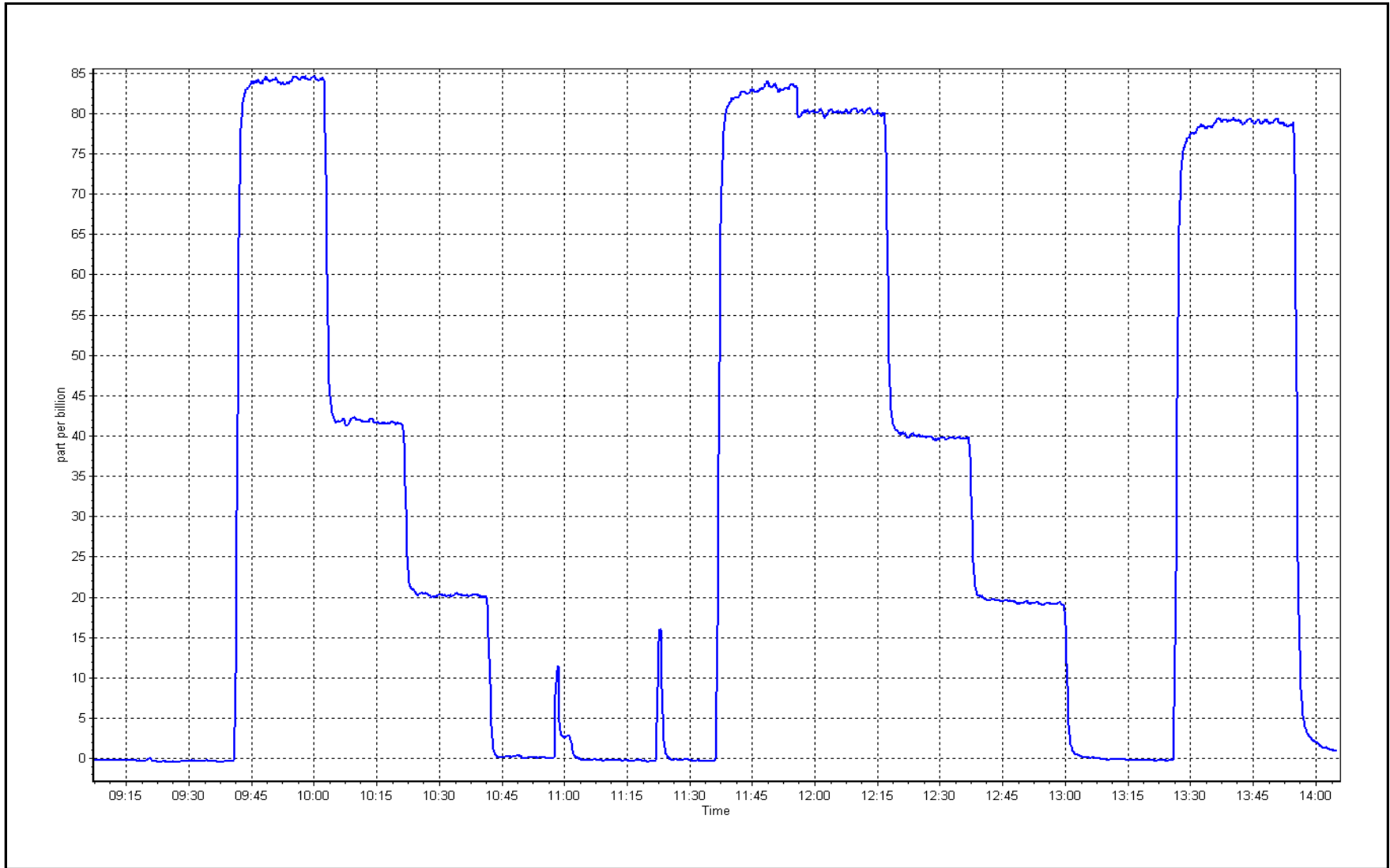
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.2	----	Correlation Coefficient	0.999938	$\geq 0.995$
80.0	80.2	0.9973	Slope	1.007477	$0.90 - 1.10$
40.0	39.8	1.0048	Intercept	-0.480000	$\pm 3$
20.0	19.3	1.0361			



H2S Calibration Plot

Date: May 27, 2026

Location: Firebag





# Wood Buffalo Environmental Association

## THC Calibration Report

### Station Information

Station Name:	Firebag	Station number:	AMS 19
Calibration Date:	May 19, 2026	Last Cal Date:	April 9, 2026
Start time (MST):	10:25	End time (MST):	13:24
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC705799	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	505.1 ppm	CH4 Equiv Conc.	1066.9 ppm
C3H8 Cal Gas Conc.	204.3 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	505.1 ppm	CH4 Equiv Conc.	1066.9 ppm
Removed C3H8 Conc.	204.3 ppm	Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700	Serial Number:	5258
ZAG Make/Model:	Teledyne API T701H	Serial Number:	201

### Analyzer Information

Analyzer make: Thermo 51i-LT	Analyzer serial #: 1336160089
Analyzer Range: 0 - 20 ppm	

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	0.988536	0.989696	Background:	2.11
Calibration intercept:	0.113780	0.110780	Coefficient:	3.773

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.18	----
As found High point	4922	78.5	16.75	16.65	1.017
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	16.47	Previous response	16.67	*% change	-1.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.17	----
High point	4922	78.5	16.75	16.73	1.001
Mid point	4961	39.2	8.36	8.31	1.006
Low point	4980	19.6	4.18	4.22	0.991
As left zero	4999	0.0	0.00	0.18	----
As left span	4922	78.4	16.73	16.78	0.997
Average Correction Factor					0.999

Notes: Inlet filter changed after as founds. Span adjusted.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

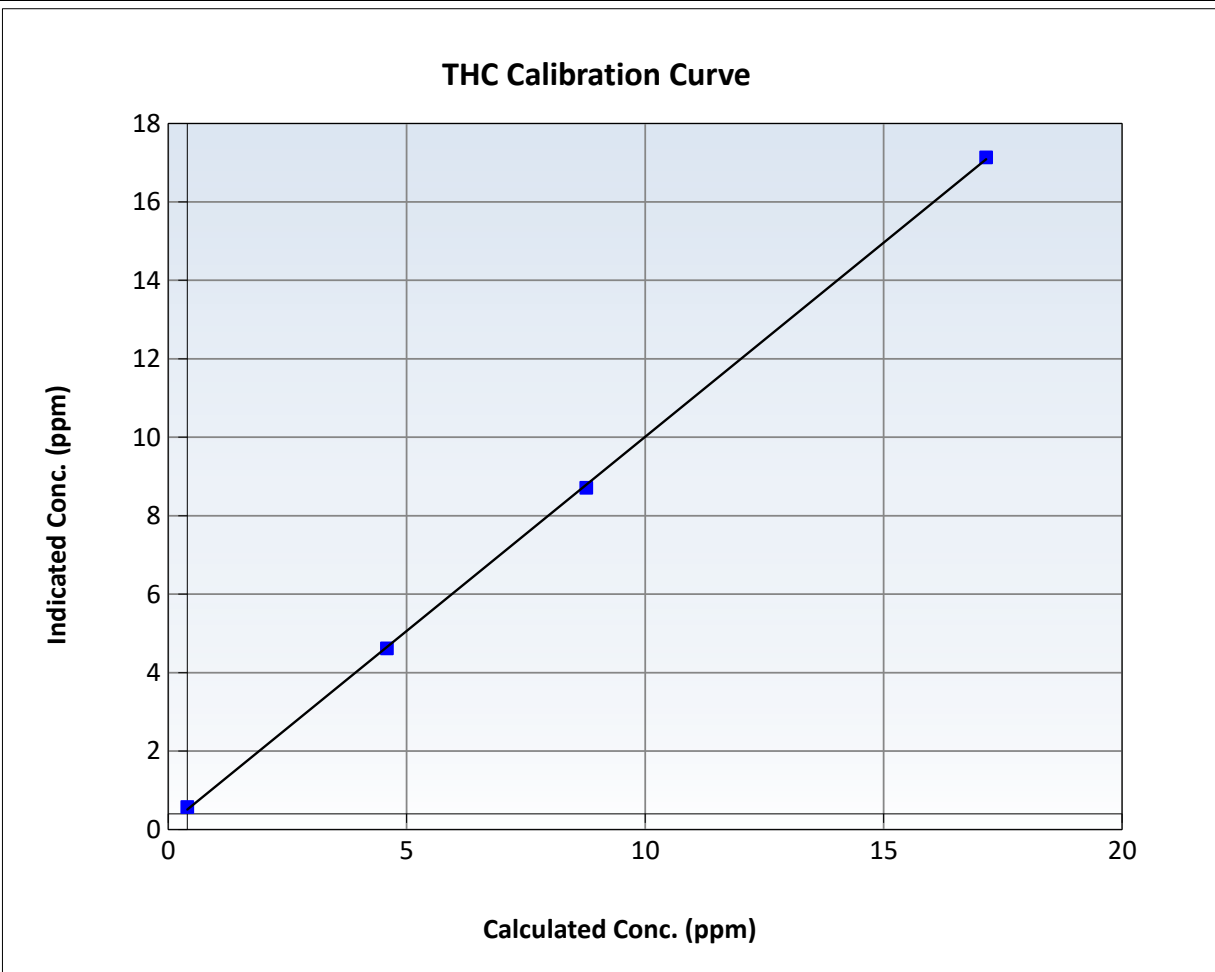
## THC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 9, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	10:25	End Time (MST):	13:24
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1336160089

### Calibration Data

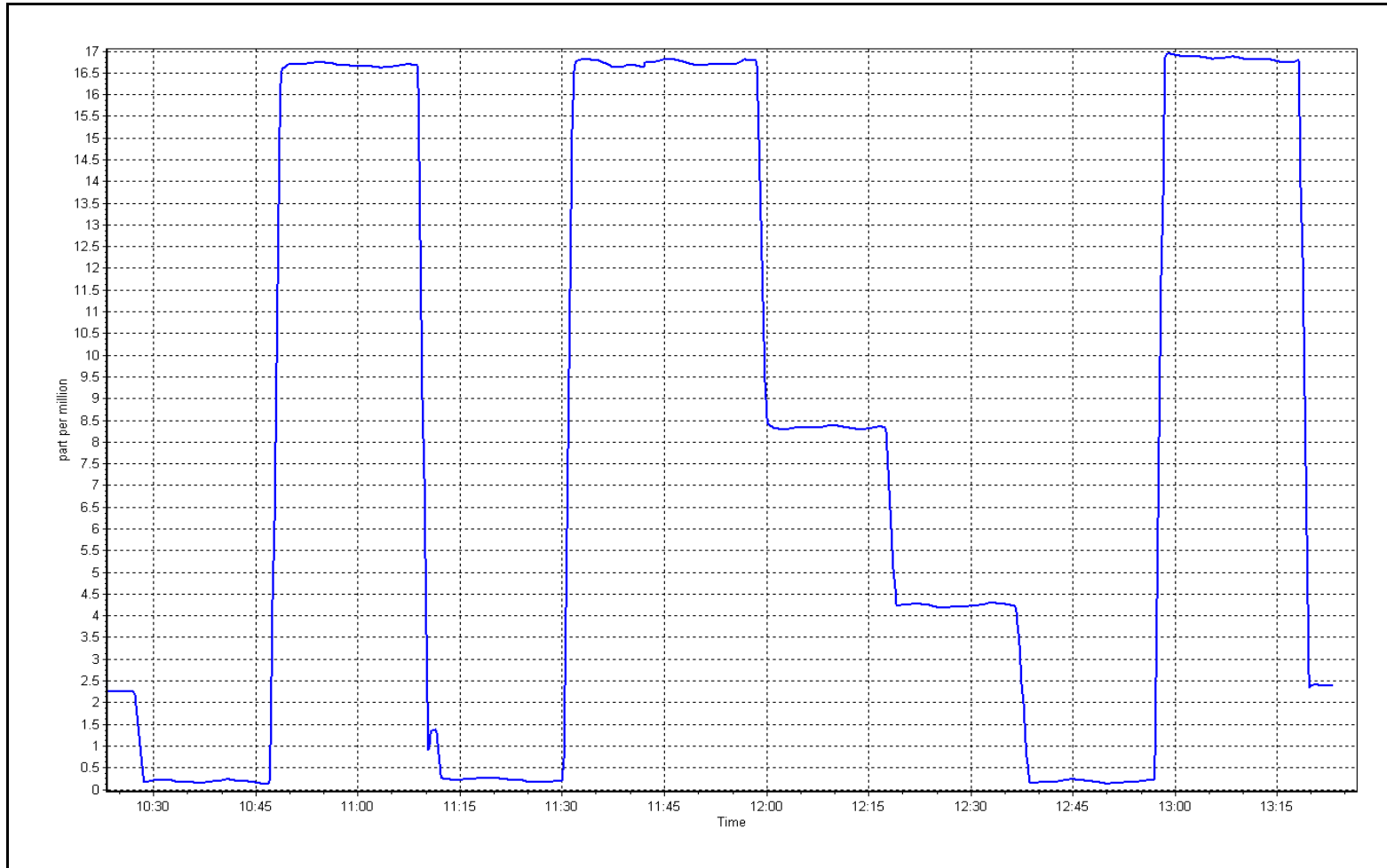
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.17	----	Correlation Coefficient	0.999917	<span style="color: red;">≥0.995</span>
16.75	16.73	1.0010	Slope	0.989696	<span style="color: red;">0.90 - 1.10</span>
8.36	8.31	1.0061	Intercept	0.110780	<span style="color: red;">+/-1.5</span>
4.18	4.22	0.9914			



THC Calibration Plot

Date: May 19, 2026

Location: Firebag





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Firebag  
 Station number: AMS 19  
 Calibration Date: May 26, 2026  
 Last Cal Date: April 1, 2026  
 Start time (MST): 9:46  
 End time (MST): 14:43  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0045593  
 NOX Cal Gas Conc: 62.10 ppm  
 Removed Cylinder #:  
 Removed Gas NOX Conc: 62.10 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701H  
 Cal Gas Expiry Date: July 22, 2032  
 NO Cal Gas Conc: 61.90 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 61.90 ppm  
 NO gas Diff:  
 Serial Number: 5258  
 Serial Number: 201

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
AF High point	4936	64.4	799.8	797.2	2.6	803.0	793.0	10.0	0.9959	1.0052
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 803.4 ppb		NO = 801.5 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = 0.0%	
Baseline Corr 1st pt	NO <sub>x</sub> = 803.1 ppb		NO = 793.1 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -1.1%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1410661309

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.006403	1.001430
NO <sub>x</sub> Cal Offset:	-1.528026	-1.987967
NO Cal Slope:	1.008551	1.001971
NO Cal Offset:	-2.567997	-2.447945
NO <sub>2</sub> Cal Slope:	0.996887	0.992559
NO <sub>2</sub> Cal Offset:	-1.165962	-1.601403

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.934	0.931	NO bkgnd or offset:	4.7	4.7
NOX coeff or slope:	0.994	0.991	NOX bkgnd or offset:	4.7	4.7
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	164.8	166.4

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.1	0.0	0.1	----	----
High point	4936	64.4	799.8	797.2	2.6	800.0	797.3	2.7	0.9997	0.9999
Mid point	4968	32.2	399.9	398.6	1.3	397.4	396.5	0.9	1.0063	1.0053
Low point	4984	16.1	200.0	199.3	0.6	196.2	194.3	1.9	1.0192	1.0258
As left zero	5000	0	0.0	0.0	0.0	0.1	0.0	0.1	----	----
As left span	4936	64.4	799.8	392.2	407.6	789.5	392.2	397.3	1.0130	1.0000
Average Correction Factor									1.0084	1.0103

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	788.4	388.0	403.0	399.4	1.0090	99.1%
Mid GPT point	788.4	593.7	197.3	193.0	1.0222	97.8%
Low GPT point	788.4	676.0	115.0	111.0	1.0358	96.5%
Average Correction Factor					1.0223	97.8%

Notes:

Inlet filter changed after as founds. Span adjusted.

Calibration Performed By:

Jason Brooks



# Wood Buffalo Environmental Association

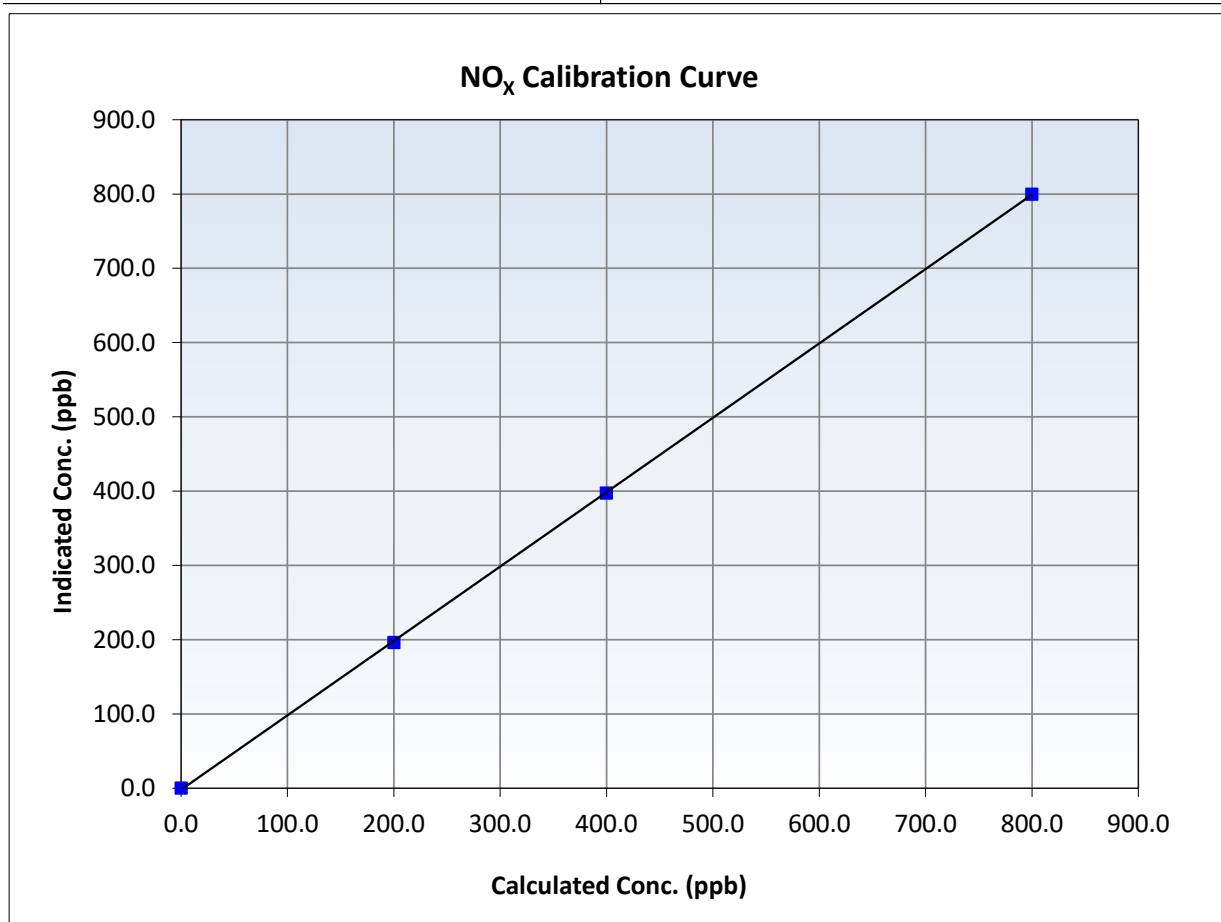
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 1, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	9:46	End Time (MST):	14:43
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661309

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999969	≥0.995
799.8	800.0	0.9997	Slope	1.001430	0.90 - 1.10
399.9	397.4	1.0063	Intercept	-1.987967	+/-20
200.0	196.2	1.0192			





# Wood Buffalo Environmental Association

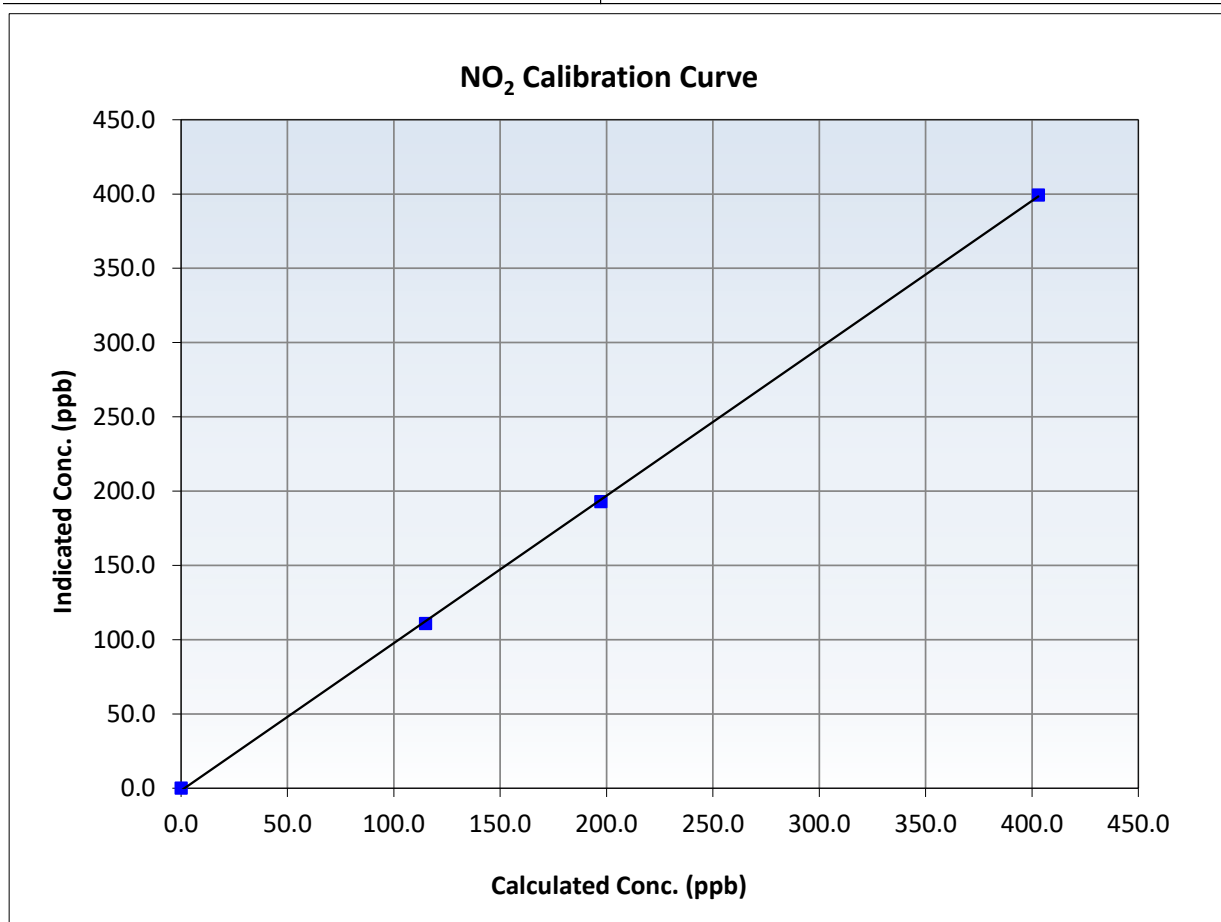
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 1, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	9:46	End Time (MST):	14:43
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661309

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999910	≥0.995
403.0	399.4	1.0090	Slope	0.992559	0.90 - 1.10
197.3	193.0	1.0222	Intercept	-1.601403	+/-20
115.0	111.0	1.0358			





# Wood Buffalo Environmental Association

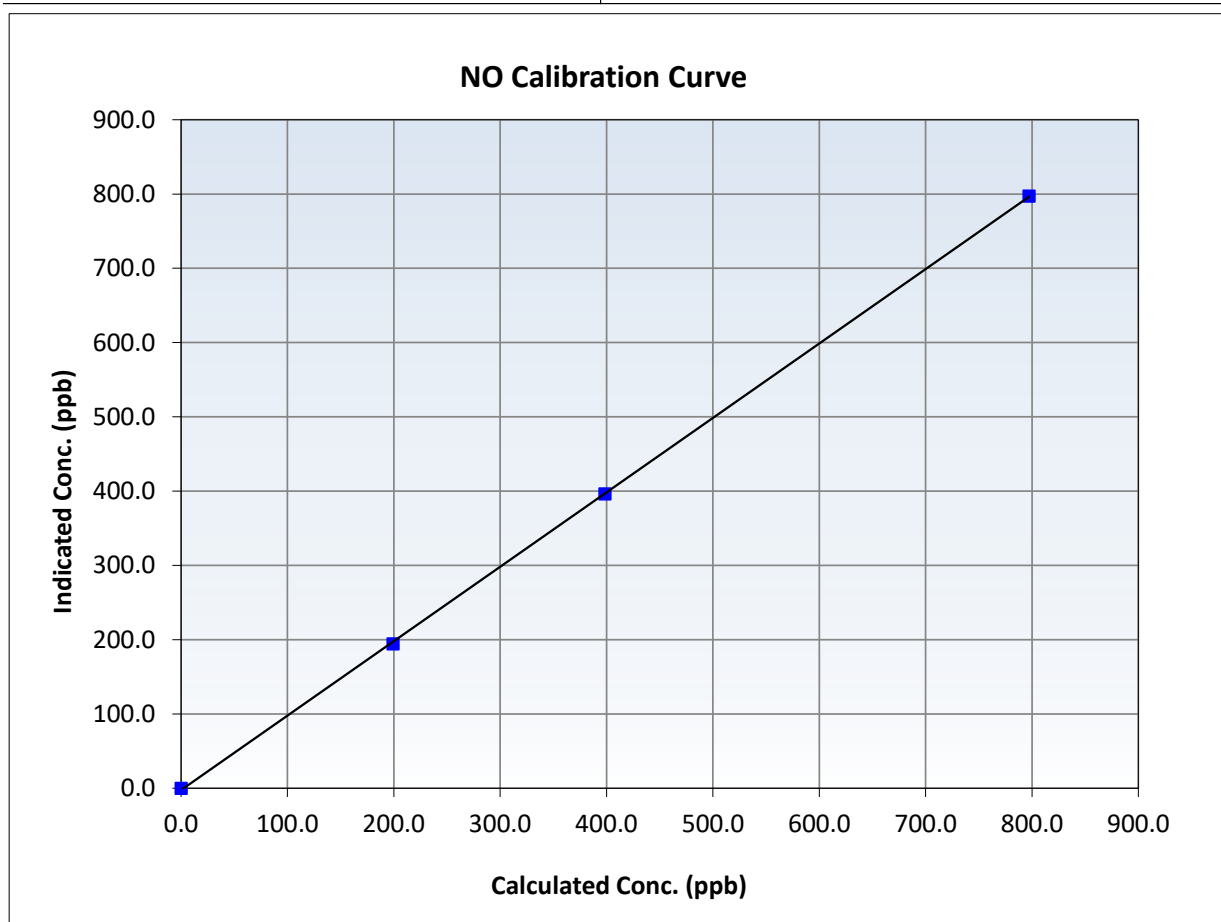
## NO Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 1, 2026
Station Name:	Firebag	Station Number:	AMS 19
Start Time (MST):	9:46	End Time (MST):	14:43
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661309

### Calibration Data

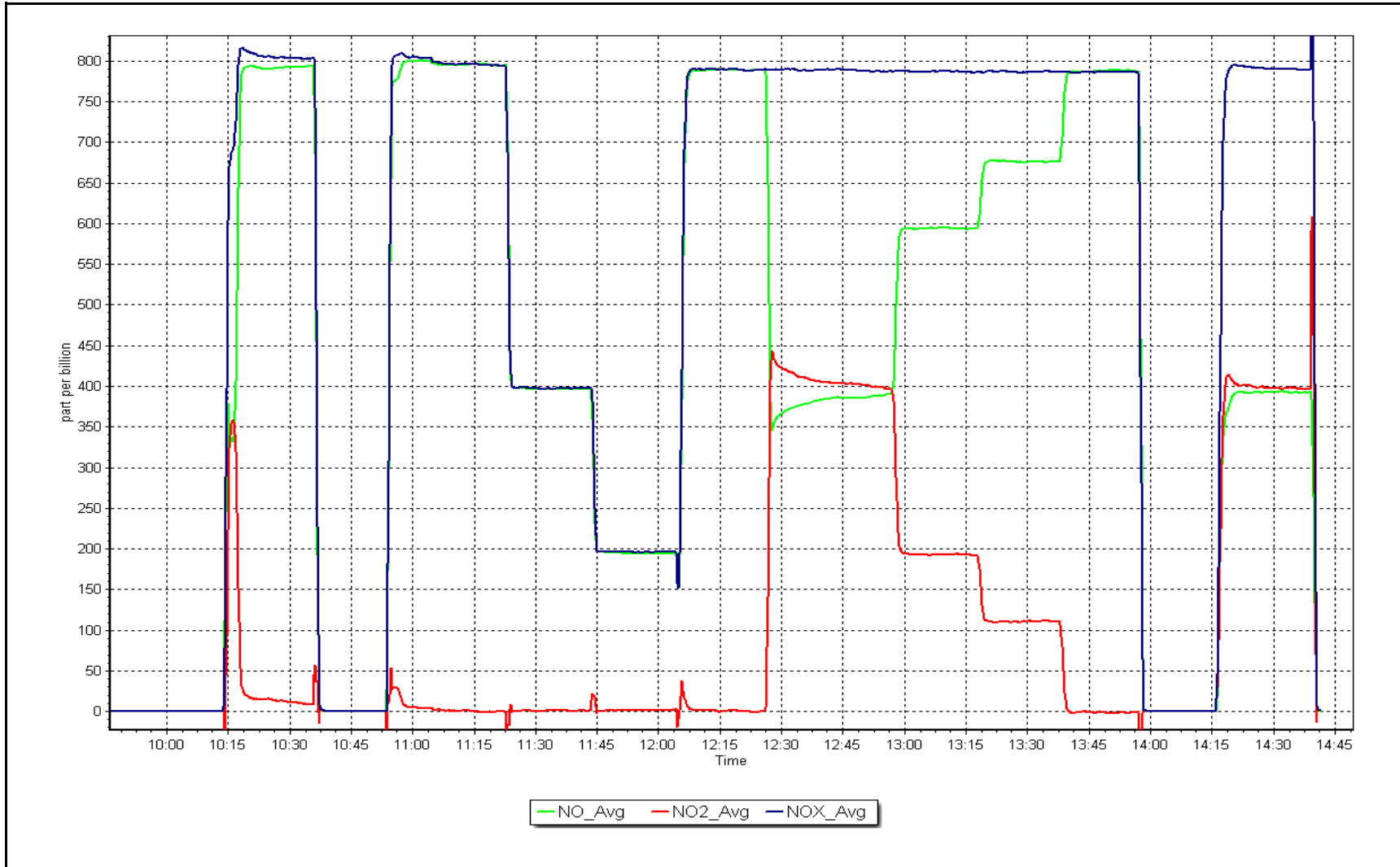
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999954	<i>≥0.995</i>
797.2	797.3	0.9999	Slope	1.001971	<i>0.90 - 1.10</i>
398.6	396.5	1.0053	Intercept	-2.447945	<i>+/-20</i>
199.3	194.3	1.0258			



NO<sub>x</sub> Calibration Plot

Date: May 26, 2026

Location: Firebag





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS20 MACKAY RIVER MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	MacKay River	Station number:	AMS 20
Calibration Date:	May 19, 2026	Last Cal Date:	April 17, 2026
Start time (MST):	7:34	End time (MST):	10:15
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	49.15	ppm	Cal Gas Exp Date:	October 9, 2032
Cal Gas Cylinder #:	CC409669			
Removed Cal Gas Conc:	49.15	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Model:	API T700		Serial Number:	5706
Zero Air Gen Model:	API 701		Serial Number:	4888

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1501301450
Analyzer Range:	0-1000ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.999803	1.001059	Backgd or Offset:	21.4	21.4
Calibration intercept:	-0.215930	0.244472	Coeff or Slope:	0.930	0.930

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4919	81.4	800.1	801.0	0.999
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	801.2	Previous response	799.7	*% change	0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4919	81.4	800.1	801.4	0.998
Mid point	4959	40.7	400.1	399.9	1.001
Low point	4980	20.3	199.5	200.9	0.993
As left zero	5000	0.0	0.0	0.0	----
As left span	4919	81.4	800.1	804.5	0.995
Average Correction Factor:					0.997

Notes: No Maintenance or adjustments done.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

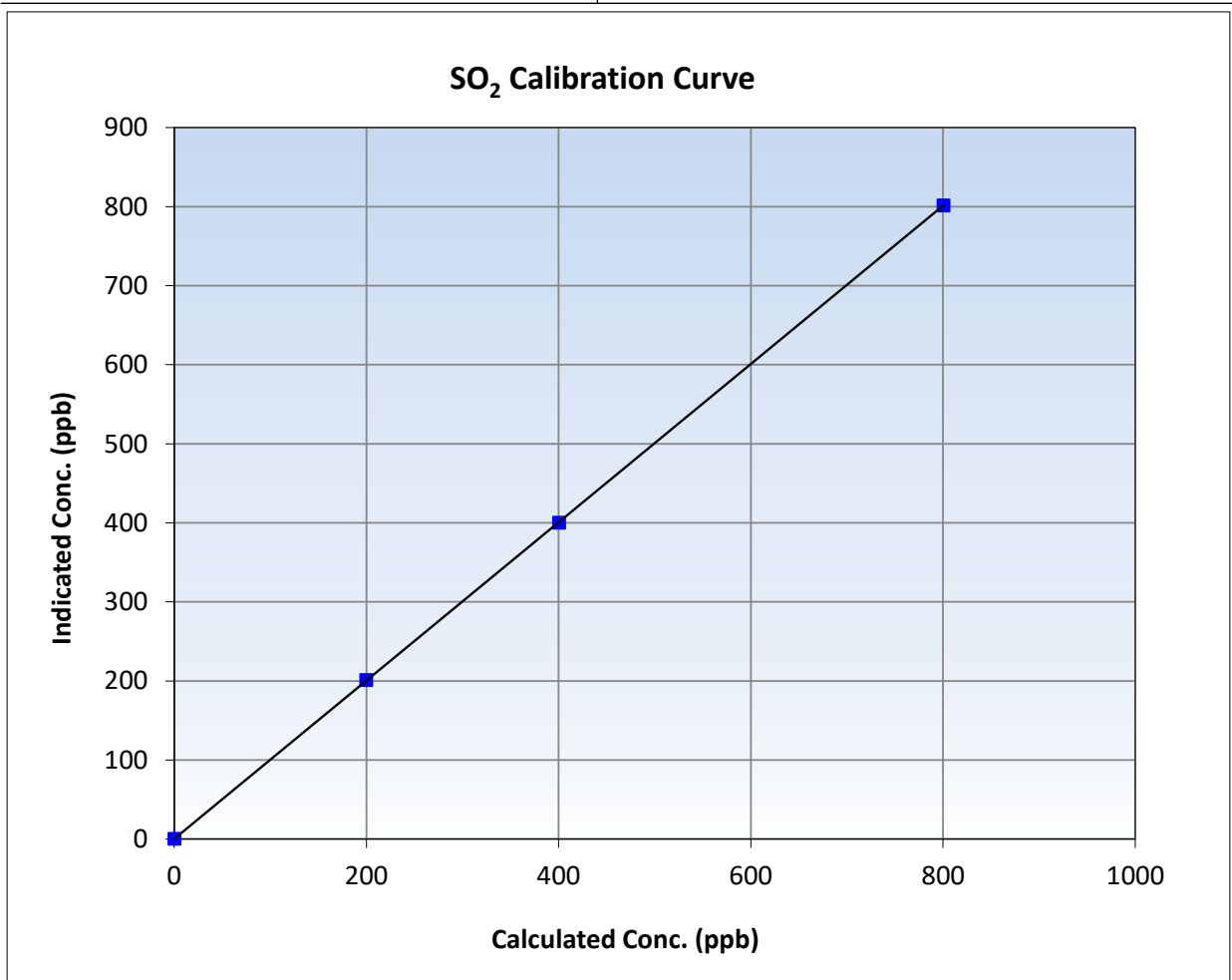
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	MacKay River	Station Number:	AMS 20
Start Time (MST):	7:34	End Time (MST):	10:15
Analyzer make:	Thermo 43i	Analyzer serial #:	1501301450

### Calibration Data

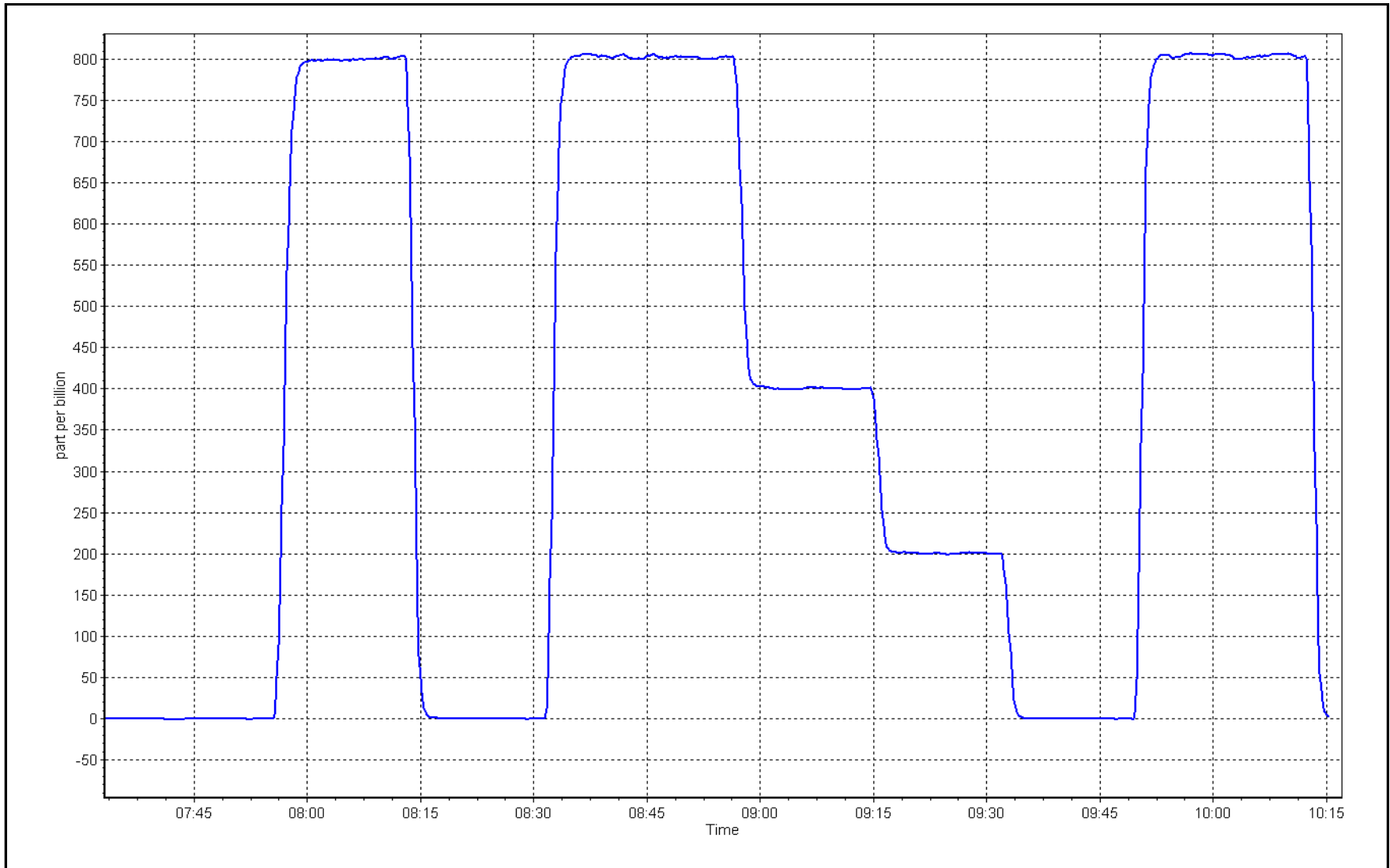
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999995
800.1	801.4	0.9984	Slope	1.001059
400.1	399.9	1.0005	Intercept	0.244472
199.5	200.9	0.9932		
				<span style="color: red;">≥0.995</span> <span style="color: red;">0.90 - 1.10</span> <span style="color: red;">+/-30</span>



SO2 Calibration Plot

Date: May 19, 2026

Location: MacKay River





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name: MacKay River	Station number: AMS 20
Calibration Date: May 11, 2026	Last Cal Date: April 8, 2026
Start time (MST): 7:09	End time (MST): 11:11
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 4.96 ppm	Cal Gas Exp Date: September 22, 2028
Cal Gas Cylinder #: CC737854	
Removed Cal Gas Conc: 4.96 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 5706
ZAG Make/Model: API 701	Serial Number: 4888

### Analyzer Information

Analyzer make: Thermo 43i TLE	Analyzer serial #: 1236656117
Converter make: Global	Converter serial #: 2022-226
Analyzer Range: 0 - 100 ppb	Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001508	1.002936	Backgd or Offset:	3.90	3.90
Calibration intercept:	0.096250	-0.003732	Coeff or Slope:	1.071	1.071

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4919	80.6	80.0	81.6	0.979
As found Mid point	4960	40.3	40.0	40.7	0.981
As found Low point	4980	20.2	20.0	20.3	0.982
New cylinder response					
Baseline Corr As found:	81.7	Prev response:	80.18	*% change:	1.9%
Baseline Corr 2nd AF pt:	40.8	AF Slope:	1.021947	AF Intercept:	-0.144158
Baseline Corr 3rd AF pt:	20.4	AF Correlation:	0.999999	* = > +/-5% change initiates investigation	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4919	80.6	80.0	80.2	0.997
Mid point	4960	40.3	40.0	40.1	0.998
Low point	4980	20.2	20.0	20.1	0.997
As left zero	5000	0.0	0.0	0.1	----
As left span	4919	80.6	80.0	79.9	1.001
SO <sub>2</sub> Scrubber Check	4982	81.3	802.8	-0.1	----
Date of last scrubber change:	25-May-23			Ave Corr Factor	0.997
Date of last converter efficiency test:					

Notes: Sox scrubber checked after the calibrator zero. No adjustments done.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

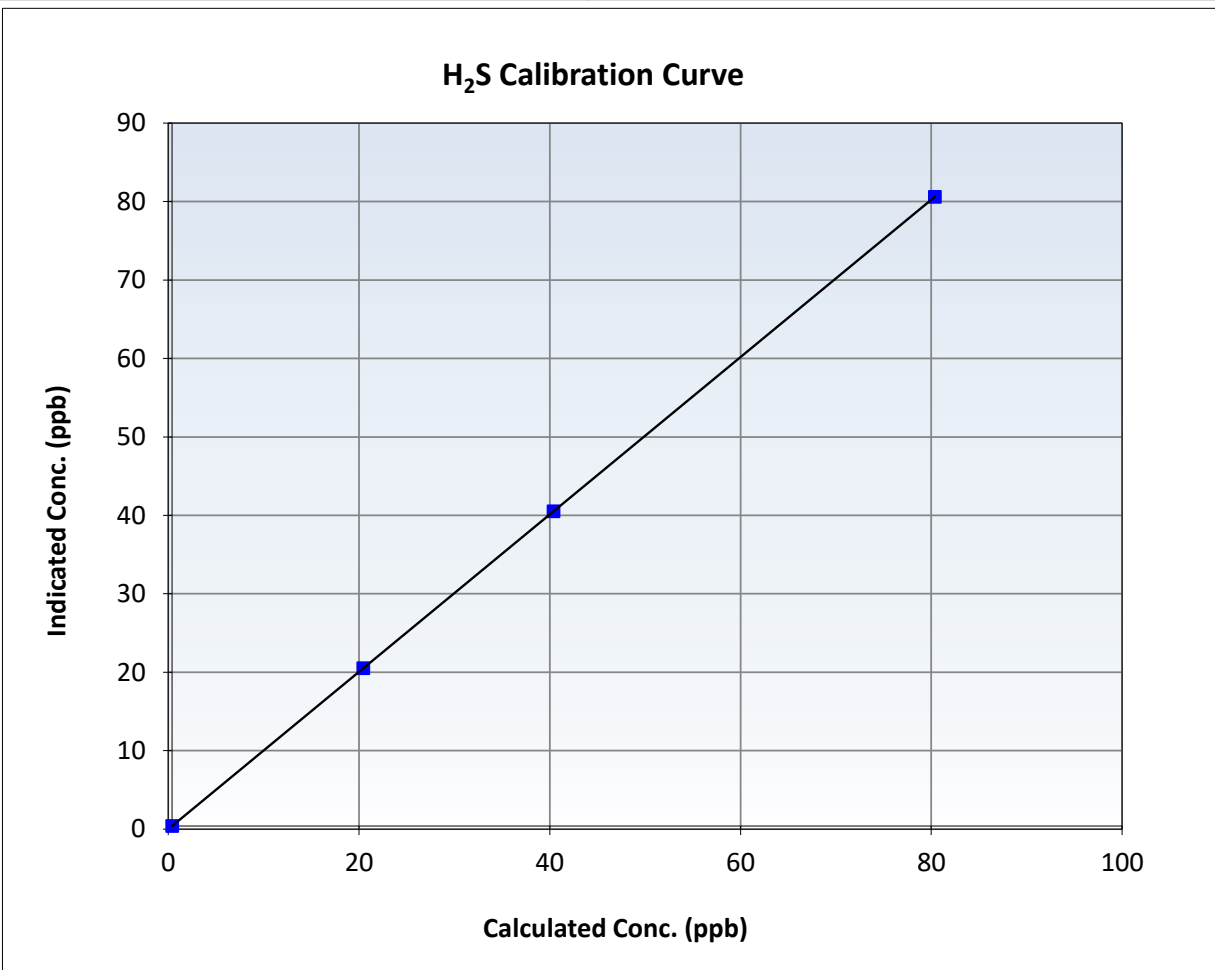
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	MacKay River	Station Number:	AMS 20
Start Time (MST):	7:09	End Time (MST):	11:11
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1236656117

### Calibration Data

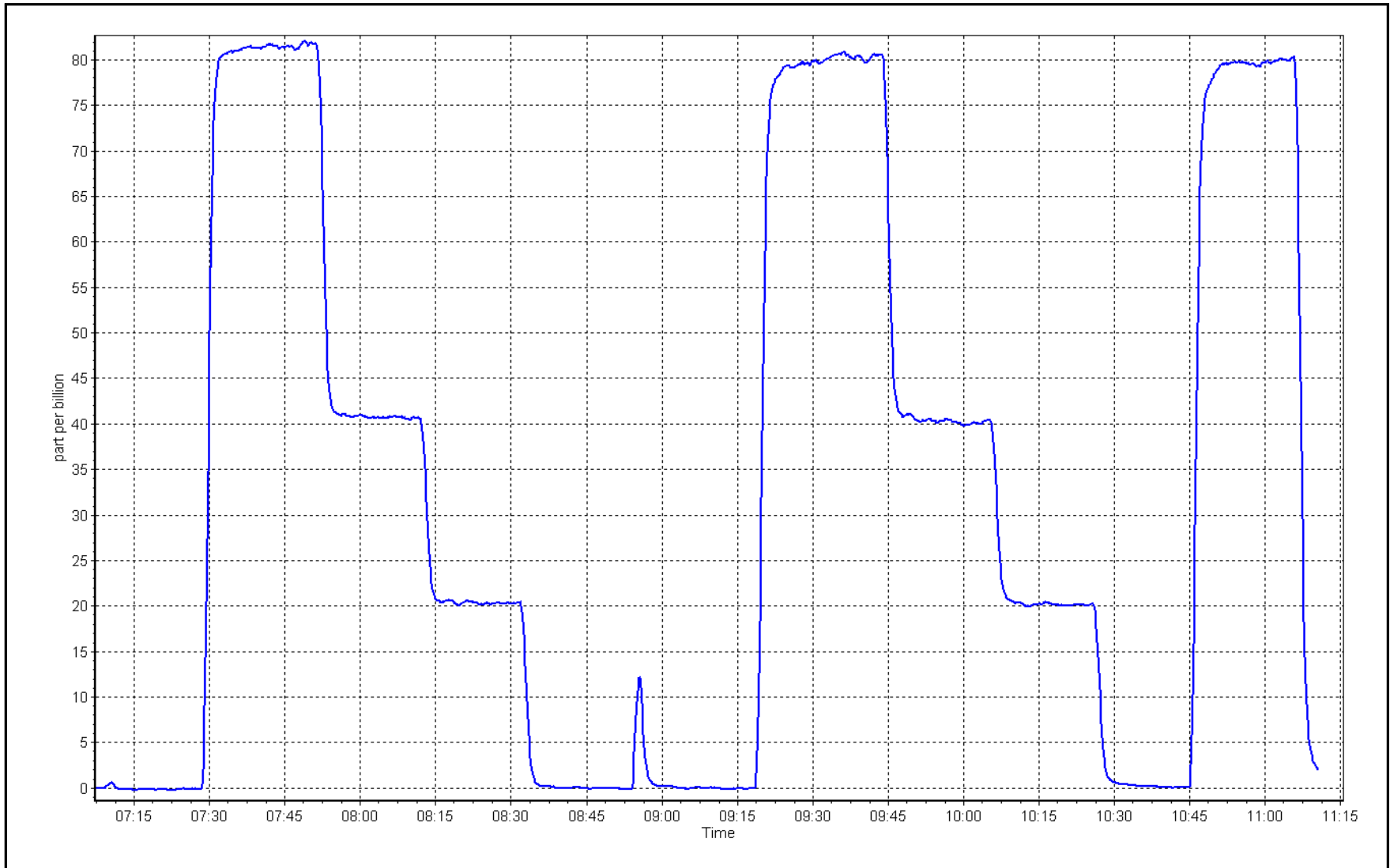
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000	≥0.995
80.0	80.2	0.9970	Slope	1.002936	0.90 - 1.10
40.0	40.1	0.9976	Intercept	-0.003732	+/-3
20.0	20.1	0.9969			



H<sub>2</sub>S Calibration Plot

Date: May 11, 2026

Location: MacKay River







# Wood Buffalo Environmental Association

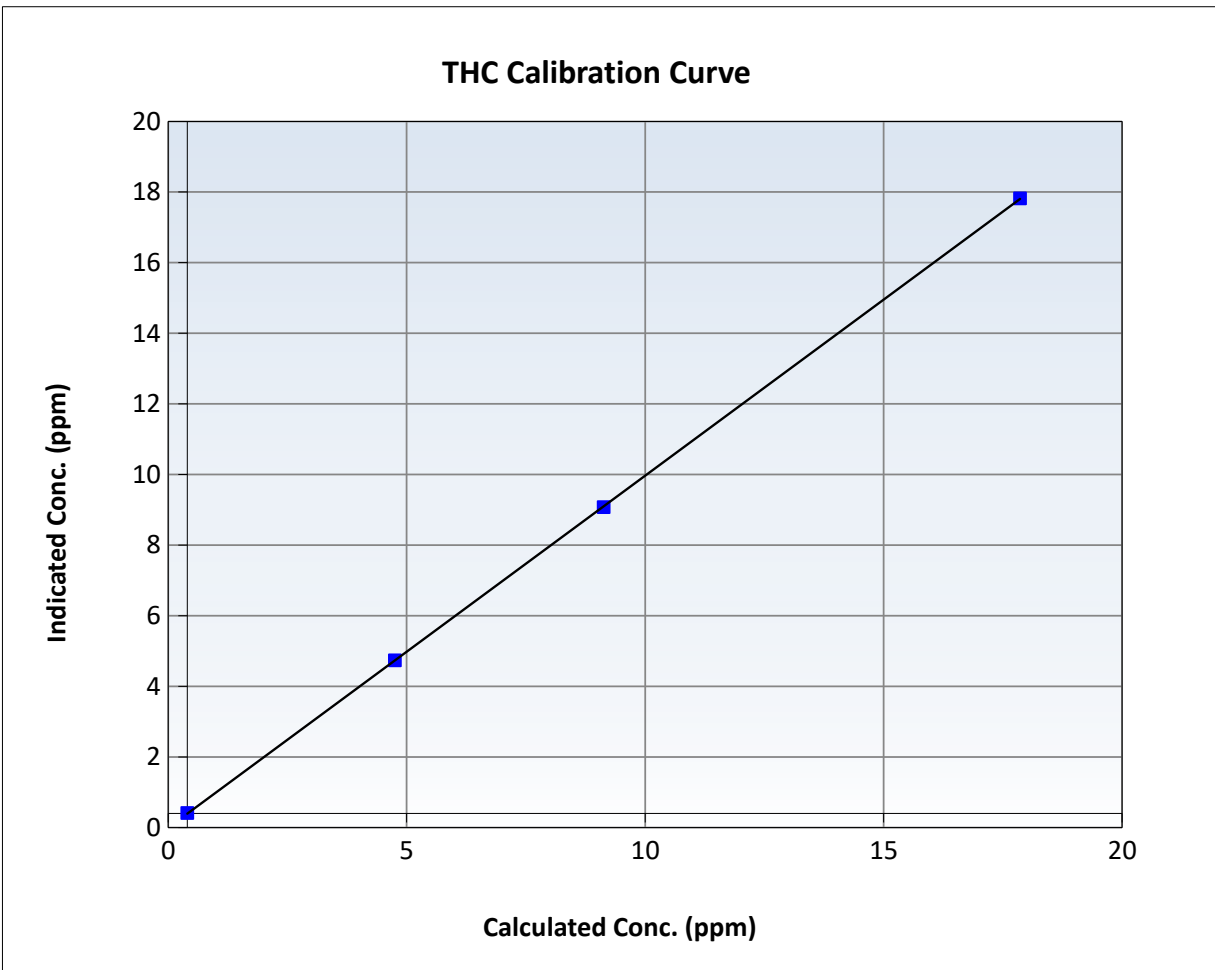
## THC Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 17, 2026
Station Name:	MacKay River	Station Number:	AMS 20
Start Time (MST):	7:34	End Time (MST):	10:15
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1501663727

### Calibration Data

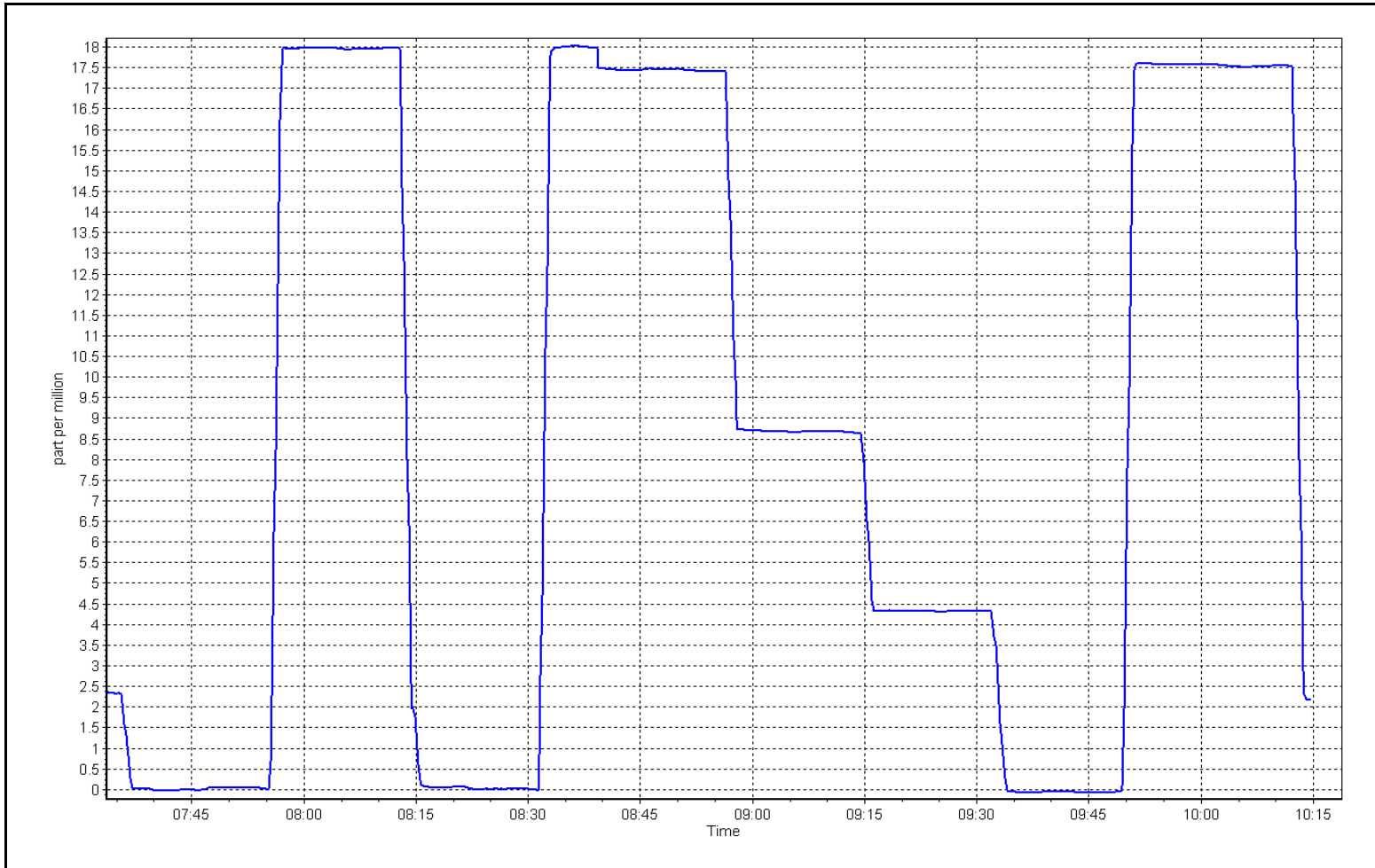
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.01	----	Correlation Coefficient	0.999993	<span style="color: red;">≥0.995</span>
17.46	17.42	1.0024	Slope	0.997212	<span style="color: red;">0.90 - 1.10</span>
8.73	8.68	1.0066	Intercept	-0.006801	<span style="color: red;">+/-1.5</span>
4.35	4.33	1.0055			



THC Calibration Plot

Date: May 19, 2026

Location: MacKay River





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: MacKay River  
 Station number: AMS 20  
 Calibration Date: May 12, 2026  
 Last Cal Date: April 9, 2026  
 Start time (MST): 6:49  
 End time (MST): 7:37  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0037393  
 NOX Cal Gas Conc: 62.00 ppm  
 Removed Cylinder #:  
 Removed Gas NOX Conc: 62.00 ppm  
 NOX gas Diff:  
 Calibrator Model: API T700  
 ZAG make/model: API T701  
 Cal Gas Expiry Date: July 22, 2032  
 NO Cal Gas Conc: 61.90 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 61.90 ppm  
 NO gas Diff:  
 Serial Number: 5706  
 Serial Number: 4888

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	0.0	-0.2	----	----
AF High point	4935	64.6	801.1	799.8	1.3	793.1	788.6	4.5	1.0098	1.0142
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 796.0 ppb	NO = 791.6 ppb				<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.3%	
Baseline Corr 1st pt	NO <sub>x</sub> = 793.3 ppb	NO = 788.6 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -0.4%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1505164379

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.992621	
NO <sub>x</sub> Cal Offset:	0.794309	
NO Cal Slope:	0.990677	
NO Cal Offset:	-0.763897	
NO <sub>2</sub> Cal Slope:	1.007243	
NO <sub>2</sub> Cal Offset:	0.364496	

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.043		NO bkgnd or offset:	2.9	
NOX coeff or slope:	1.000		NOX bkgnd or offset:	3.2	
NO2 coeff or slope:	1.000		Reaction cell Press:	149.8	

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
-----------	---------------------------	-----------------------------	---	--	---	--	---------------------------------------	--	---	--

Cal zero  
 High point  
 Mid point  
 Low point  
 As left zero  
 As left span

Average Correction Factor

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
-------------------	--	---------------------------------------	---	--	---	--

Cal zero  
 High GPT point  
 Mid GPT point  
 Low GPT point

Average Correction Factor

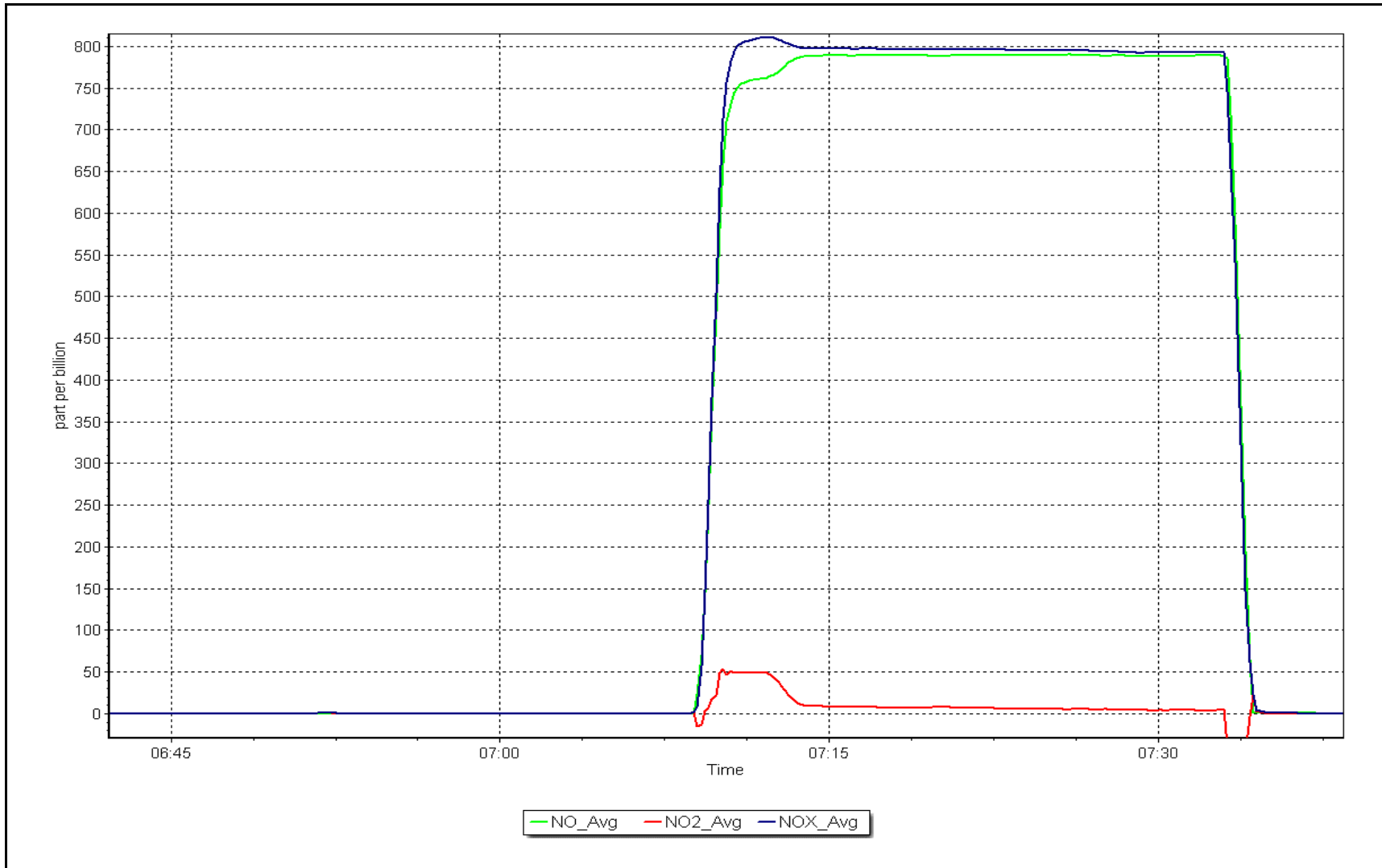
Notes: As founds only done as their was a power outage during the calibration

Calibration Performed By: Melissa Lemay

NO<sub>x</sub> Calibration Plot

Date: May 12, 2026

Location: MacKay River





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: MacKay River  
 Station number: AMS 20  
 Calibration Date: May 13, 2026  
 Last Cal Date: April 9, 2026  
 Start time (MST): 6:49  
 End time (MST): 11:07  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0037393  
 NOX Cal Gas Conc: 62.00 ppm  
 Removed Cylinder #:  
 Removed Gas NOX Conc: 62.00 ppm  
 NOX gas Diff:  
 Calibrator Model: API T700  
 ZAG make/model: API T701  
 Cal Gas Expiry Date: July 22, 2032  
 NO Cal Gas Conc: 61.90 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 61.90 ppm  
 NO gas Diff:  
 Serial Number: 5706  
 Serial Number: 4888

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	0.0	-0.2	----	----
AF High point	4935	64.6	801.1	799.8	1.3	792.0	783.2	8.8	1.0112	1.0212
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 796.0 ppb	NO = 791.6 ppb	<i>* = &gt; +/-5% change initiates investigation</i>				*Percent Change	NO <sub>x</sub> = -0.5%		
Baseline Corr 1st pt	NO <sub>x</sub> = 792.2 ppb	NO = 783.2 ppb	<u>As Found Statistics</u>				*Percent Change	NO = -1.1%		
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :		Nx SI:	Nx Int:			
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :		NO SI:	NO Int:			
			As found	NO <sub>2</sub> r <sup>2</sup> :		NO <sub>2</sub> SI:	NO <sub>2</sub> Int:			

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1505164379

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.992621	0.996373
NO <sub>x</sub> Cal Offset:	0.794309	0.753608
NO Cal Slope:	0.990677	0.997909
NO Cal Offset:	-0.763897	-0.545534
NO <sub>2</sub> Cal Slope:	1.007243	1.000618
NO <sub>2</sub> Cal Offset:	0.364496	-0.770360

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.043	1.065	NO bkgnd or offset:	2.9	2.9
NOX coeff or slope:	1.000	0.991	NOX bkgnd or offset:	3.2	3.2
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	148.6	148.6

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.2	----	----
High point	4935	64.6	801.1	799.8	1.3	798.3	797.7	0.6	1.0035	1.0026
Mid point	4968	32.3	400.5	399.9	0.6	401.0	398.9	2.0	0.9987	1.0024
Low point	4984	16.2	200.9	200.5	0.3	201.1	198.3	2.8	0.9989	1.0113
As left zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.2	----	----
As left span	4935	64.6	801.1	426.9	374.2	798.2	426.9	371.3	1.0036	1.0000
Average Correction Factor									1.0004	1.0055

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	794.2	426.7	368.8	368.5	1.0008	99.9%
Mid GPT point	794.2	605.1	190.4	189.6	1.0042	99.6%
Low GPT point	794.2	698.9	96.6	95.2	1.0146	98.6%
Average Correction Factor					1.0065	99.4%

Notes: No Maintenance done. Span adjusted.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

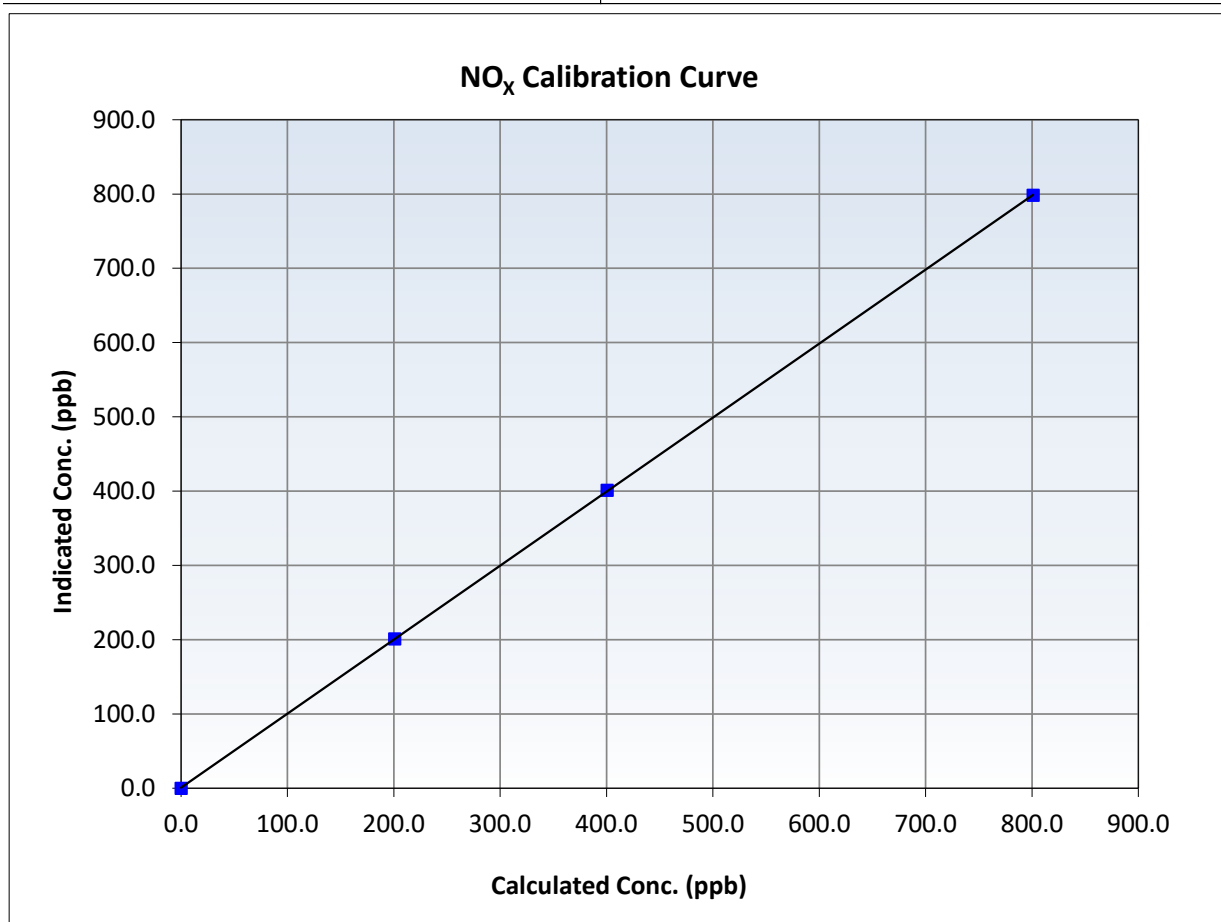
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 9, 2026
Station Name:	Mackay River	Station Number:	AMS 20
Start Time (MST):	6:49	End Time (MST):	11:07
Analyzer make:	Thermo 42i	6:50:00 AM	1505164379

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999993	≥0.995
801.1	798.3	1.0035	Slope	0.996373	0.90 - 1.10
400.5	401.0	0.9987	Intercept	0.753608	+/-20
200.9	201.1	0.9989			





# Wood Buffalo Environmental Association

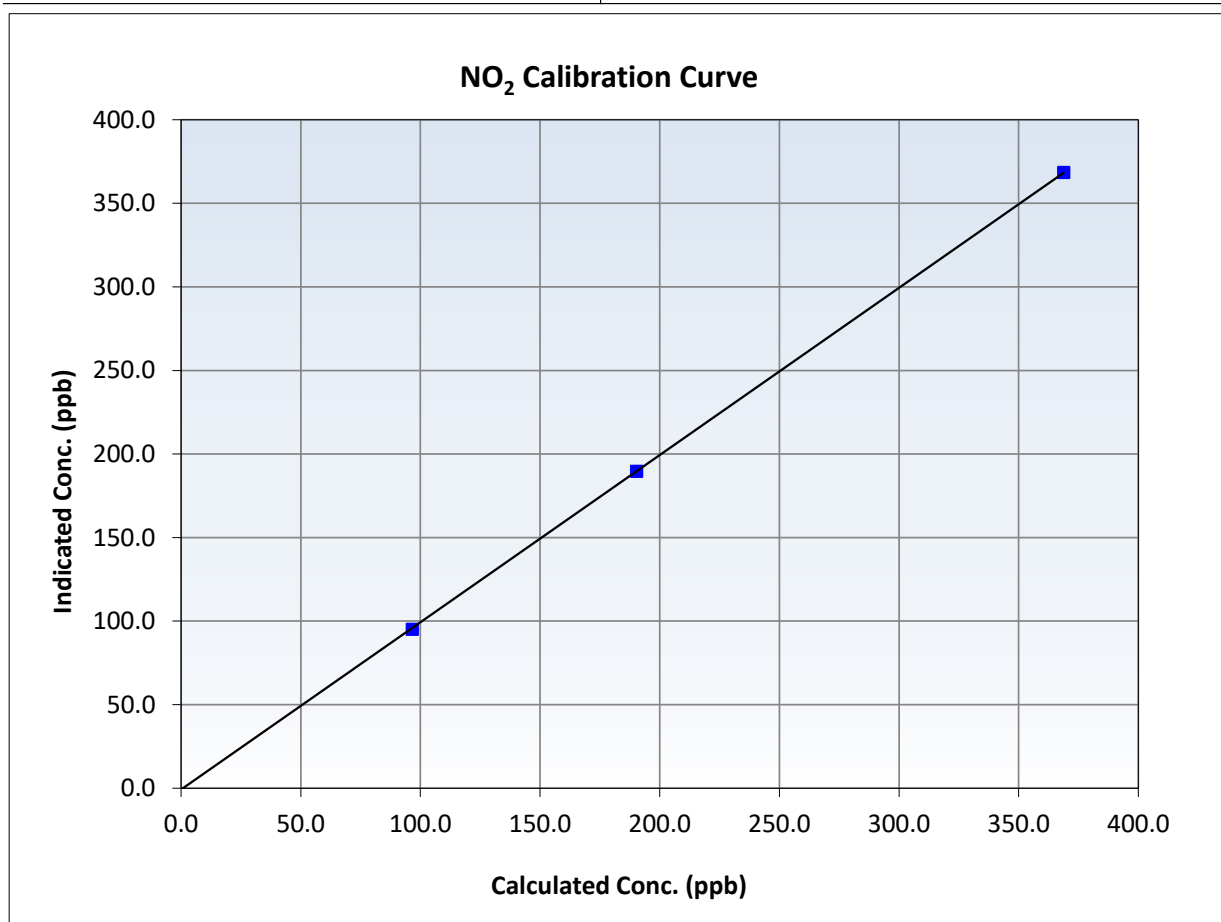
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 9, 2026
Station Name:	Mackay River	Station Number:	AMS 20
Start Time (MST):	6:49	End Time (MST):	11:07
Analyzer make:	Thermo 42i	6:50:00 AM	1505164379

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999988	<span style="color: red;">≥0.995</span>
368.8	368.5	1.0008	Slope	1.000618	<span style="color: red;">0.90 - 1.10</span>
190.4	189.6	1.0042	Intercept	-0.770360	<span style="color: red;">+/-20</span>
96.6	95.2	1.0146			





# Wood Buffalo Environmental Association

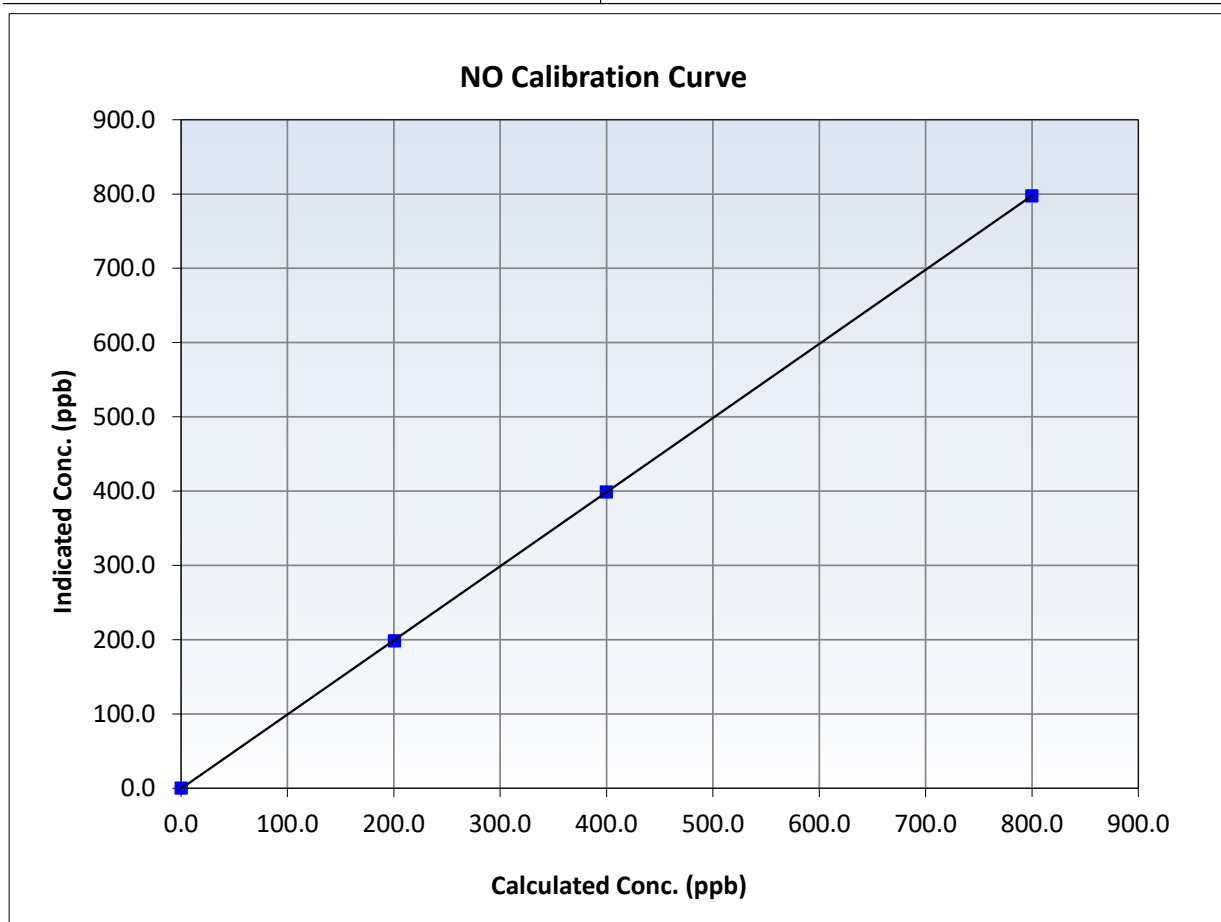
## NO Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 9, 2026
Station Name:	Mackay River	Station Number:	AMS 20
Start Time (MST):	6:49	End Time (MST):	11:07
Analyzer make:	Thermo 42i	6:50:00 AM	1505164379

### Calibration Data

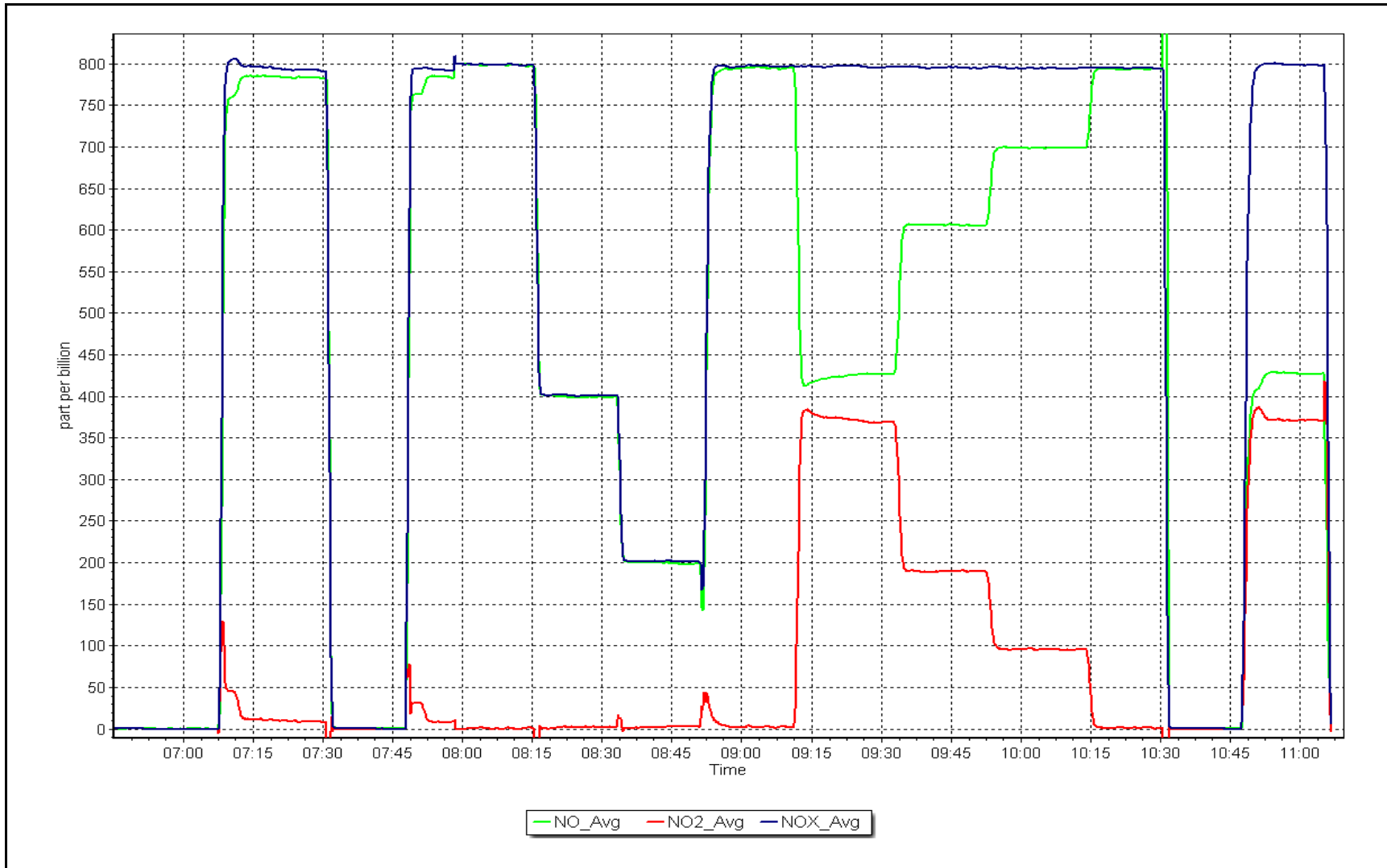
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999993	<span style="color: red;">≥0.995</span>
799.8	797.7	1.0026	Slope	0.997909	<span style="color: red;">0.90 - 1.10</span>
399.9	398.9	1.0024	Intercept	-0.545534	<span style="color: red;">+/-20</span>
200.5	198.3	1.0113			



NO<sub>x</sub> Calibration Plot

Date: May 13, 2026

Location: MacKay River





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS21  
CONKLIN  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Conklin	Station number:	AMS 21
Calibration Date:	May 13, 2026	Last Cal Date:	April 9, 2026
Start time (MST):	10:40	End time (MST):	13:45
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.34	ppm	Cal Gas Exp Date:	October 9, 2023
Cal Gas Cylinder #:	CC340840			
Removed Cal Gas Conc:	50.34	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	Teledyne API T700P		Serial Number:	2656
Zero Air Gen Model:	Teledyne API T701H		Serial Number:	355

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1428701363
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001547	1.000904	Backgd or Offset:	32.0	31.9
Calibration intercept:	2.256578	1.956959	Coeff or Slope:	0.913	0.909

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4921	79.5	800.3	805.1	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	805.2	Previous response	803.8	*% change	0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4921	79.5	800.3	802.4	0.997
Mid point	4960	39.8	400.7	402.8	0.995
Low point	4980	19.9	200.4	205.4	0.975
As left zero	5000	0.0	0.0	0.0	----
As left span	4921	79.5	800.3	803.7	0.996
Average Correction Factor:					0.989

Notes: Span adjusted.

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

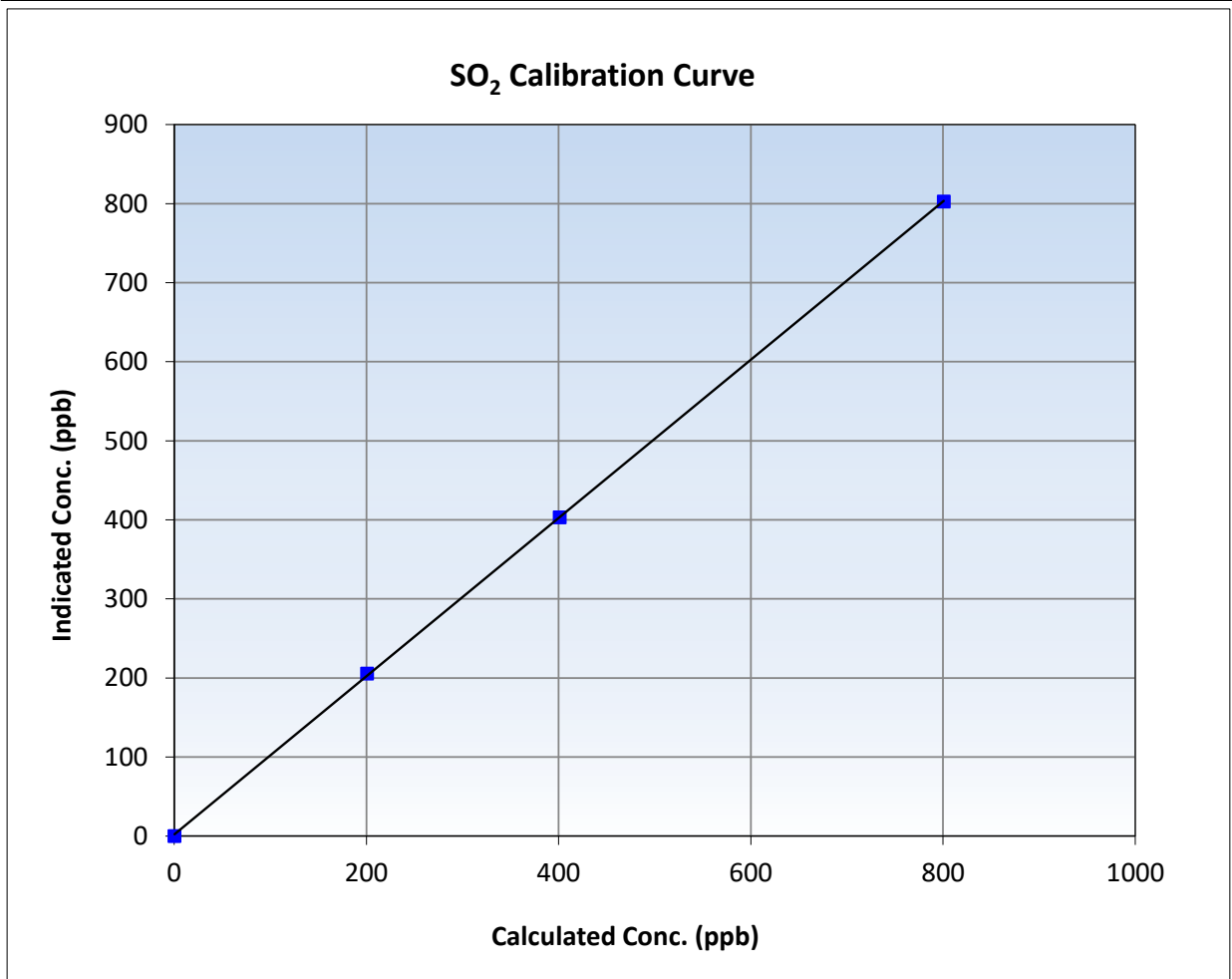
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 9, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:40	End Time (MST):	13:45
Analyzer make:	Thermo 43i	Analyzer serial #:	1428701363

### Calibration Data

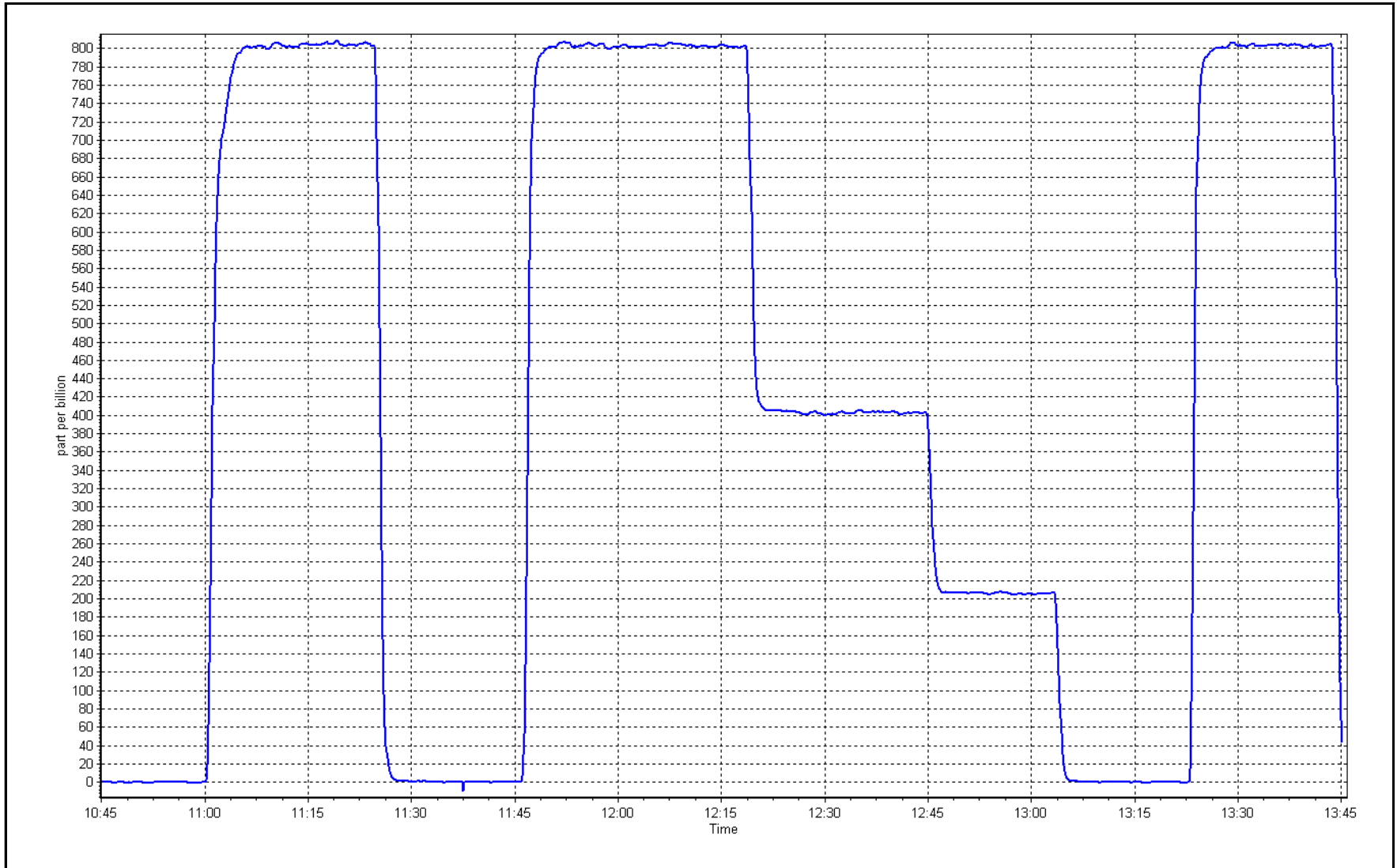
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999963	<b>≥0.995</b>
800.3	802.4	0.9974	Slope	1.000904	<b>0.90 - 1.10</b>
400.7	402.8	0.9948	Intercept	1.956959	<b>+/-30</b>
200.4	205.4	0.9754			



SO2 Calibration Plot

Date: May 13, 2026

Location: Conklin





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name: Conklin	Station number: AMS 21
Calibration Date: May 26, 2026	Last Cal Date: April 29, 2026
Start time (MST): 10:45	End time (MST): 16:00
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 5.06 ppm	Cal Gas Exp Date: September 22, 2028
Cal Gas Cylinder #: SA15198	
Removed Cal Gas Conc: 5.06 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	Diff between cyl:
Calibrator Make/Model: Teledyne T700P	Serial Number: 2656
ZAG Make/Model: Teledyne T701H	Serial Number: 355

### Analyzer Information

Analyzer make: Thermo 43i-QTL	Analyzer serial #: 12228021058
Converter make: CD-Nova 101	Converter serial #: 565
Analyzer Range: 0 - 100 ppb	Converter Temp: 825 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004304	1.000158	Backgd or Offset:	3.17	3.08
Calibration intercept:	-0.039388	0.080663	Coeff or Slope:	1.419	1.408

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4921	79.1	80.0	80.4	0.996
As found Mid point	4961	39.5	40.0	40.4	0.989
As found Low point	4980	19.7	19.9	20.5	0.973
New cylinder response					
Baseline Corr As found:	80.4	Prev response:	80.35	*% change:	0.1%
Baseline Corr 2nd AF pt:	40.4	AF Slope:	1.002726	AF Intercept:	0.240833
Baseline Corr 3rd AF pt:	20.5	AF Correlation:	0.999958	* = > +/-5% change initiates investigation	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4921	79.1	80.0	80.1	0.999
Mid point	4961	39.5	40.0	40.0	0.999
Low point	4980	19.7	19.9	20.3	0.982
As left zero	5000	0.0	0.0	0.1	----
As left span	4921	79.1	80.0	80.1	0.999
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	August 6, 2025			Ave Corr Factor	0.994
Date of last converter efficiency test:	October 7, 2025				

Notes: Sox scrubber checked after calibrator zero. Span adjusted.

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

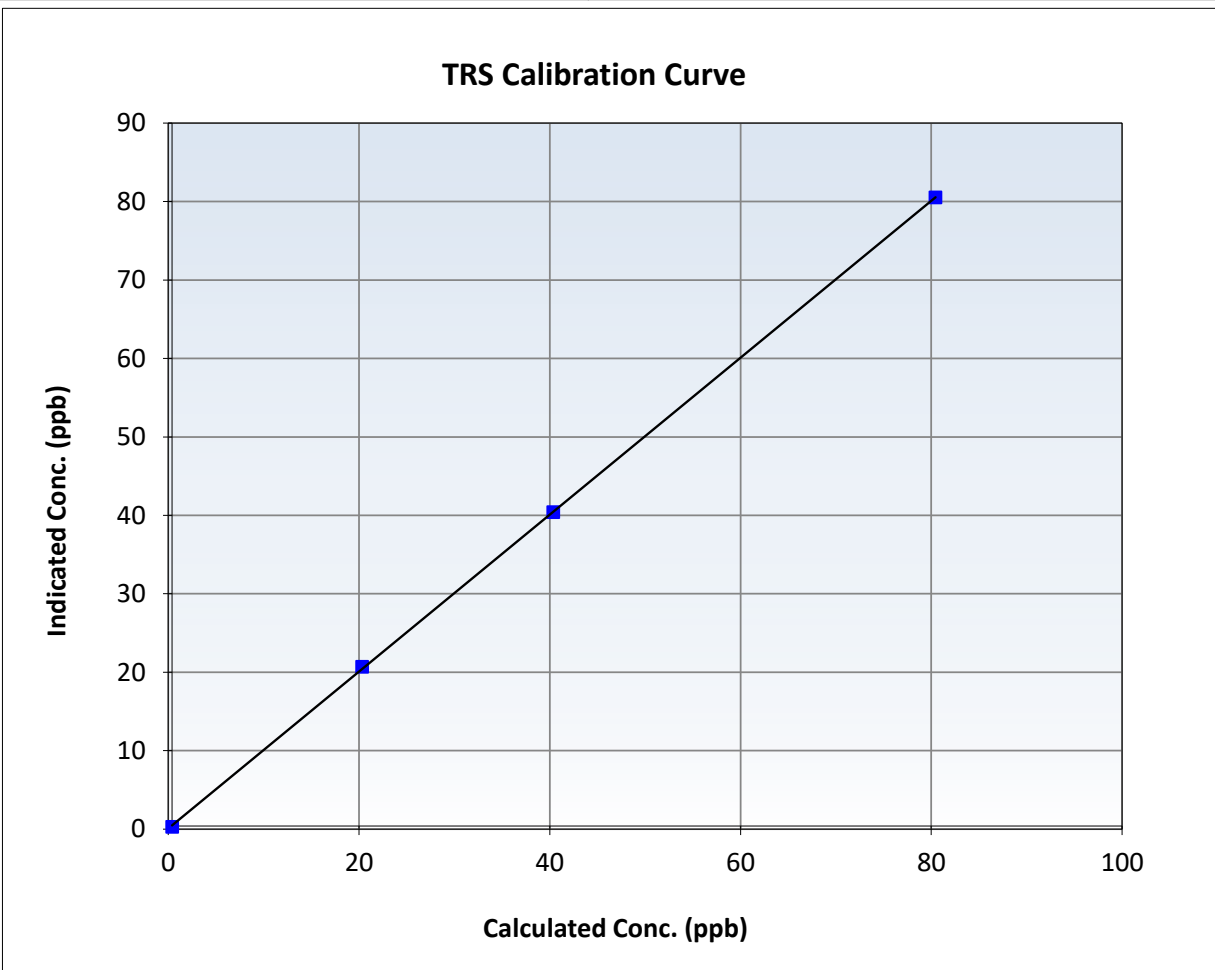
## TRS Calibration Summary

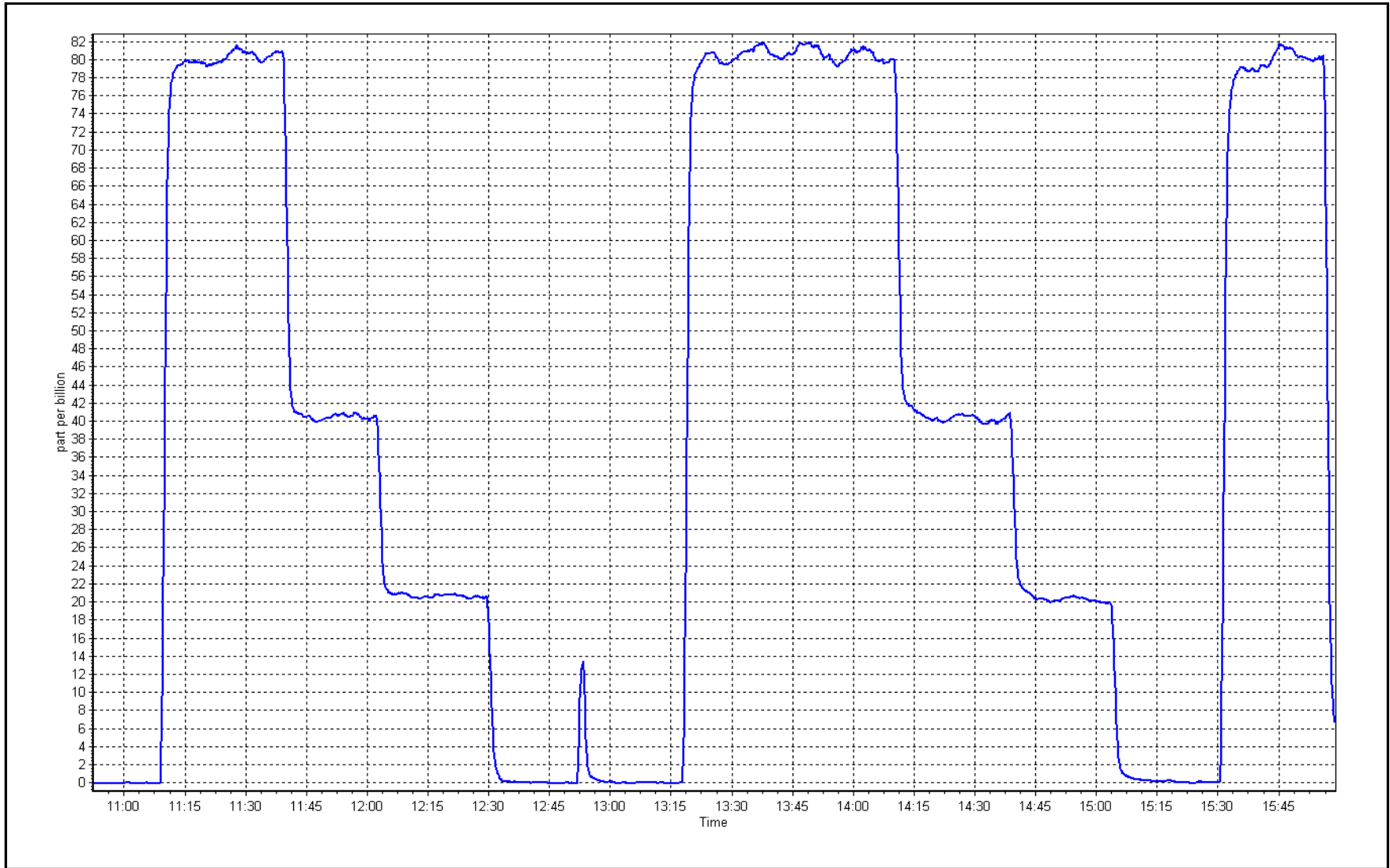
### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 29, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:45	End Time (MST):	16:00
Analyzer make:	Thermo 43i-QTL	Analyzer serial #:	12228021058

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999967	$\geq 0.995$
80.0	80.1	0.9993	Slope	1.000158	$0.90 - 1.10$
40.0	40.0	0.9993	Intercept	0.080663	$\pm 3$
19.9	20.3	0.9821			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Conklin	Station number:	AMS 21
Calibration Date:	May 13, 2026	Last Cal Date:	April 30, 2026
Start time (MST):	10:40	End time (MST):	13:45
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC340840	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	503.8 ppm	CH4 Equiv Conc.	1067.6 ppm
C3H8 Cal Gas Conc.	205.0 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	503.8 ppm	CH4 Equiv Conc.	1067.6 ppm
Removed C3H8 Conc.	205.0 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API T700P	Serial Number:	2656
Zero Air Gen model:	Teledyne API T701H	Serial Number:	355

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1152430011
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.56E-04	2.57E-04	NMHC SP Ratio: 5.00E-05	5.28E-05
CH4 Retention time:	13.0	12.8	NMHC Peak Area: 179057	169705
Zero Chromatogram:	OFF	OFF	Flat Baseline: OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.5	16.97	16.80	1.010
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.80	Prev response	17.11	*% change	-1.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.5	16.97	17.01	0.998
Mid point	4960	39.8	8.50	8.55	0.994
Low point	4980	19.9	4.25	4.38	0.971
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.5	16.97	16.97	1.000
Average Correction Factor					0.987

Notes: Span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.5	8.96	8.82	1.016
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.82	Prev response	9.04	*% change	-2.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.5	8.96	9.01	0.995
Mid point	4960	39.8	4.49	4.52	0.992
Low point	4980	19.9	2.24	2.31	0.971
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.5	8.96	8.98	0.999
Average Correction Factor					0.986

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.5	8.01	7.98	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.98	Prev response	8.07	*% change	-1.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.5	8.01	8.01	1.000
Mid point	4960	39.8	4.01	4.03	0.996
Low point	4980	19.9	2.01	2.07	0.970
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.5	8.01	7.99	1.003
Average Correction Factor					0.989

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.003114	1.000303
THC Cal Offset:	0.082035	0.053668
CH <sub>4</sub> Cal Slope:	1.003423	0.997256
CH <sub>4</sub> Cal Offset:	0.034949	0.028572
NMHC Cal Slope:	1.003207	1.003128
NMHC Cal Offset:	0.047884	0.024696

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

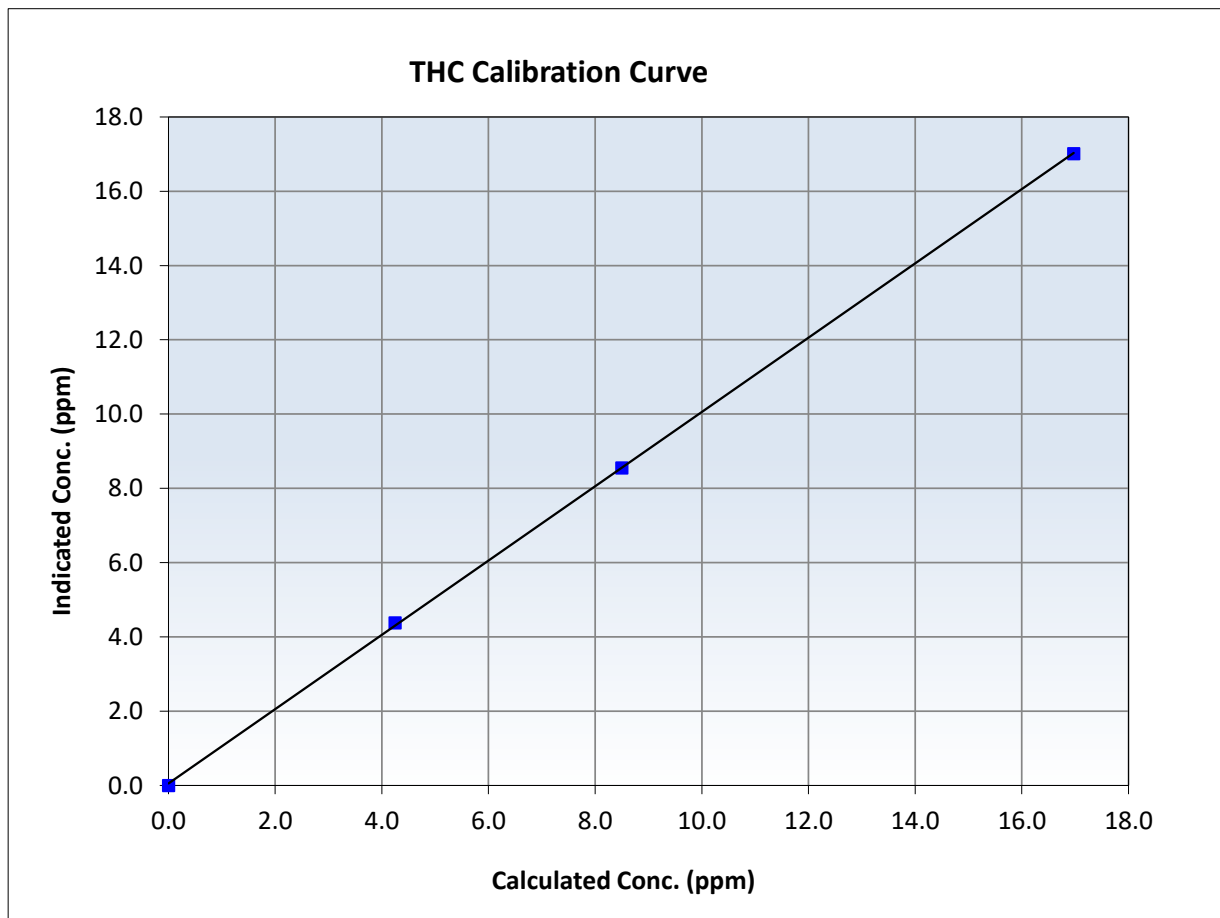
## THC Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 30, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:40	End Time (MST):	13:45
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430011

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999946	<i>≥0.995</i>
16.97	17.01	0.9976	Slope	1.000303	<i>0.90 - 1.10</i>
8.50	8.55	0.9937	Intercept	0.053668	<i>+/-0.5</i>
4.25	4.38	0.9707			





# Wood Buffalo Environmental Association

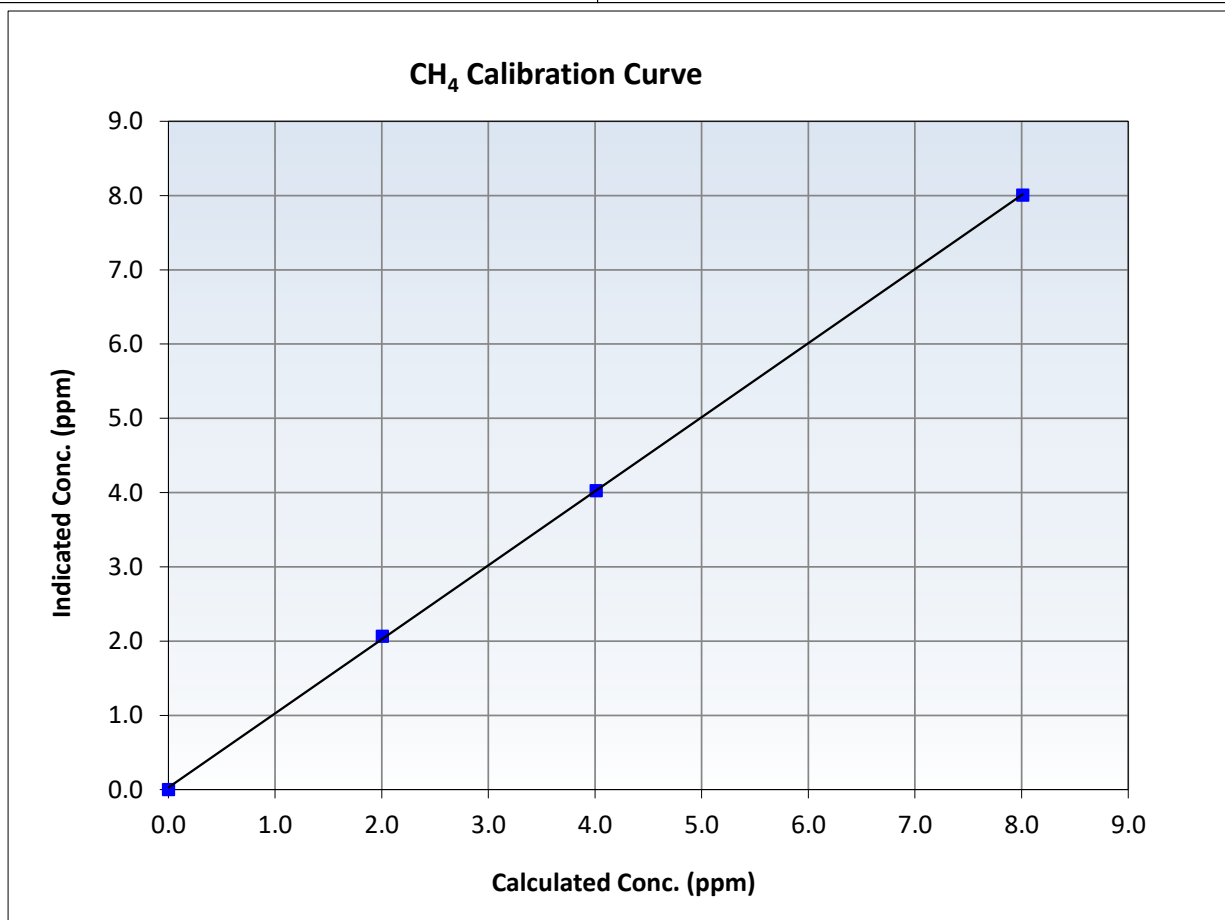
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 30, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:40	End Time (MST):	13:45
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430011

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999931	<i>≥0.995</i>
8.01	8.01	1.0003	Slope	0.997256	<i>0.90 - 1.10</i>
4.01	4.03	0.9959	Intercept	0.028572	<i>+/-0.5</i>
2.01	2.07	0.9701			





# Wood Buffalo Environmental Association

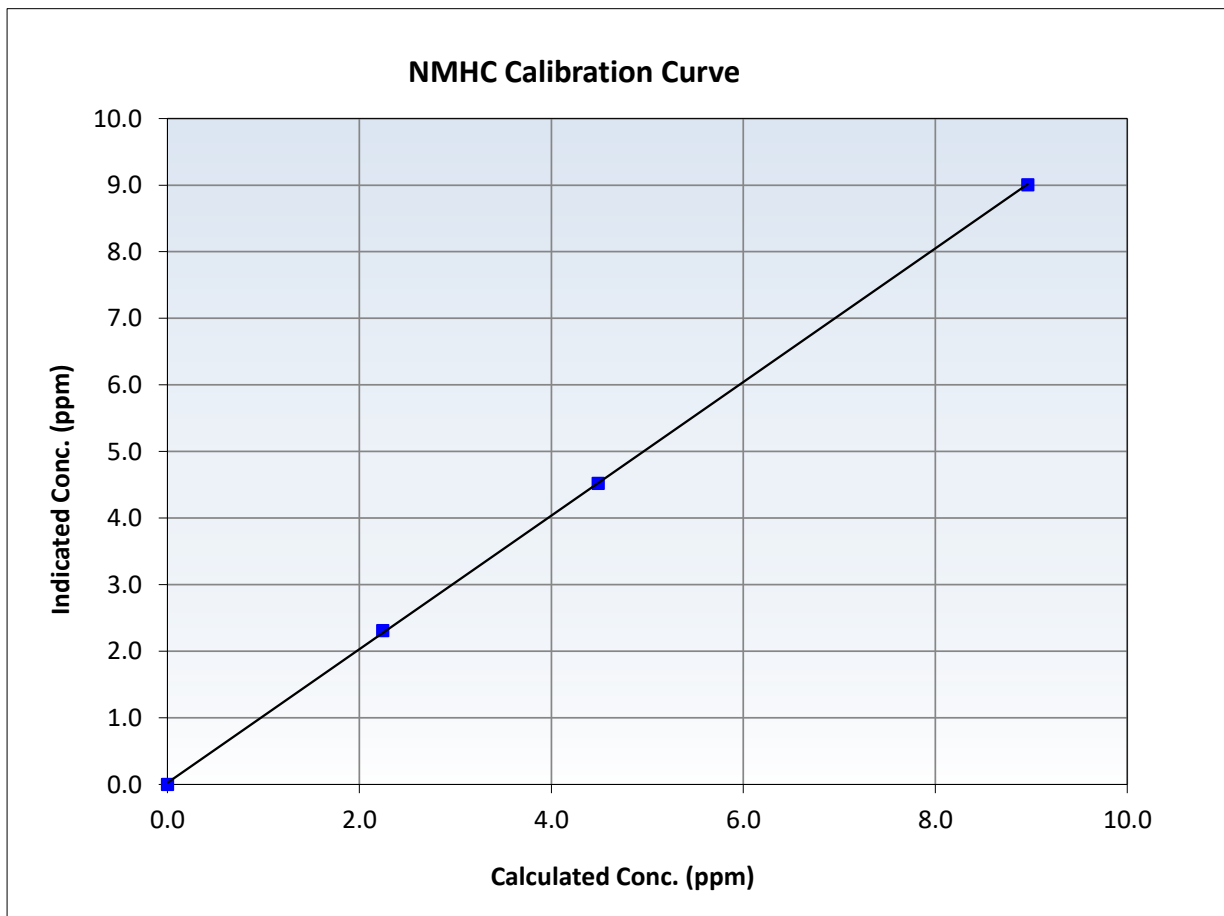
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 30, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:40	End Time (MST):	13:45
Analyzer make:	Thermo 55i	Analyzer serial #:	1152430011

### Calibration Data

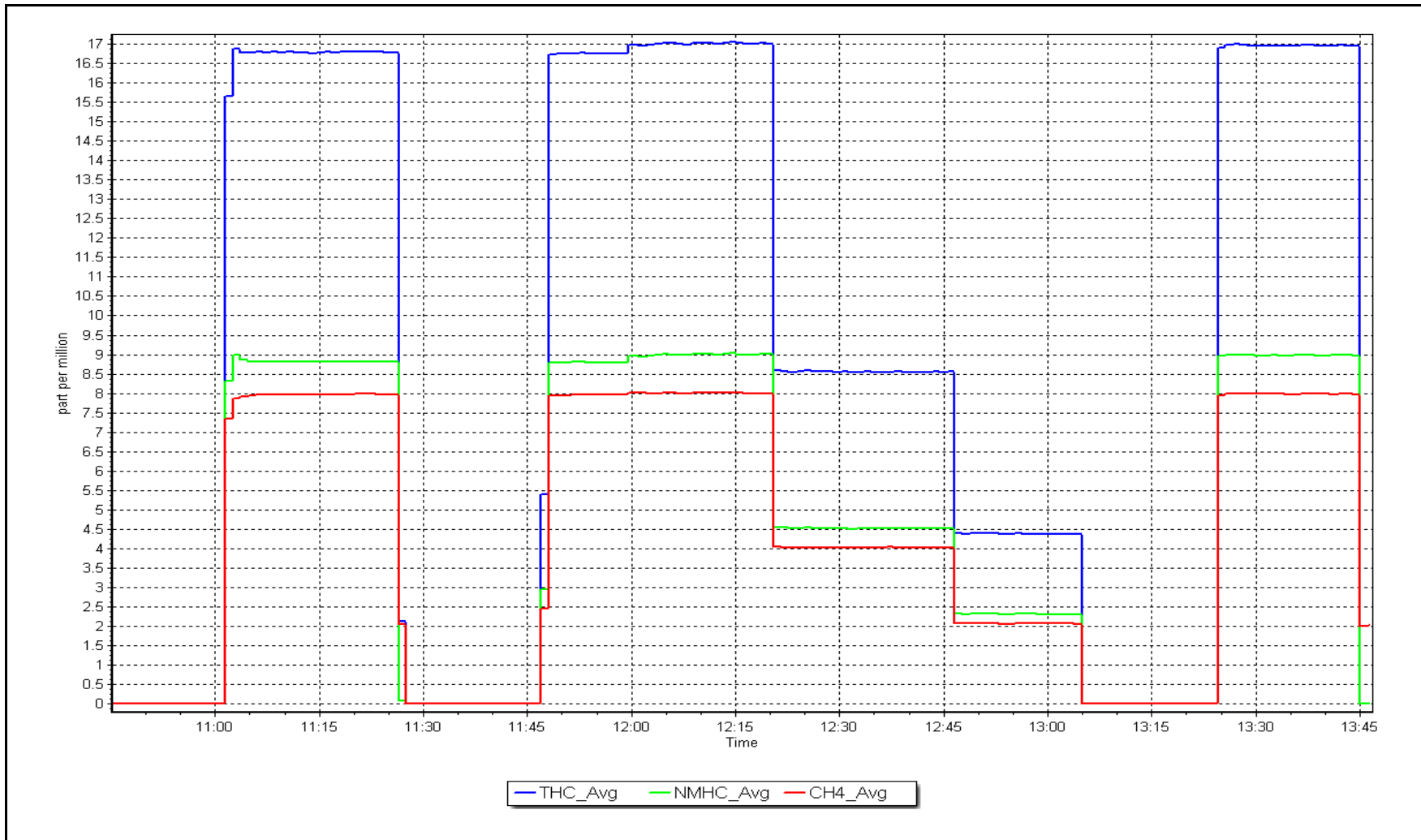
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999958	<i>≥0.995</i>
8.96	9.01	0.9950	Slope	1.003128	<i>0.90 - 1.10</i>
4.49	4.52	0.9920	Intercept	0.024696	<i>+/-0.5</i>
2.24	2.31	0.9713			



NMHC Calibration Plot

Date: May 13, 2026

Location: Conklin





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Conklin  
 Station number: AMS 21  
 Calibration Date: May 14, 2026  
 Last Cal Date: April 28, 2026  
 Start time (MST): 10:52  
 End time (MST): 15:46  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: SA18828  
 NOX Cal Gas Conc: 48.90 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 48.90 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: November 3, 2031  
 NO Cal Gas Conc: 48.80 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 48.80 ppm  
 NO gas Diff:  
 Serial Number: 2656  
 Serial Number: 355

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.3	0.2	0.0	----	----
AF High point	4918	82.0	802.0	800.3	1.6	799.3	793.3	6.0	1.0037	1.0091
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 803.8 ppb		NO = 800.2 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.6%	
Baseline Corr 1st pt	NO <sub>x</sub> = 799.0 ppb		NO = 793.1 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -0.9%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1218153356

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.998388	0.997561
NO <sub>x</sub> Cal Offset:	3.088075	3.528075
NO Cal Slope:	0.997792	1.000277
NO Cal Offset:	1.688035	2.068051
NO <sub>2</sub> Cal Slope:	1.002634	1.001311
NO <sub>2</sub> Cal Offset:	0.896211	-0.940457

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.614	0.619	NO bkgnd or offset:	2.9	2.9
NOX coeff or slope:	0.997	0.997	NOX bkgnd or offset:	3.0	3.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	165.3	161.8

### Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.4	0.4	-0.1	----	----
High point	4918	82.0	802.0	800.3	1.6	802.3	802.1	0.1	0.9996	0.9978
Mid point	4959	41.0	401.0	400.2	0.8	404.1	402.2	1.9	0.9923	0.9949
Low point	4980	20.5	200.5	200.1	0.4	207.3	204.5	2.7	0.9671	0.9783
As left zero	5000	0.0	0.0	0.0	0.0	0.4	0.3	0.0	----	----
As left span	4918	82.0	802.0	392.5	409.5	804.7	392.5	412.2	0.9966	1.0000
Average Correction Factor									0.9863	0.9903

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	800.9	390.0	412.5	412.7	0.9996	100.0%
Mid GPT point	800.9	599.2	203.3	201.8	1.0076	99.2%
Low GPT point	800.9	700.0	102.5	101.2	1.0132	98.7%
Average Correction Factor					1.0068	99.3%

Notes:

Span adjusted.

Calibration Performed By:

Aswin Sasi Kumar



# Wood Buffalo Environmental Association

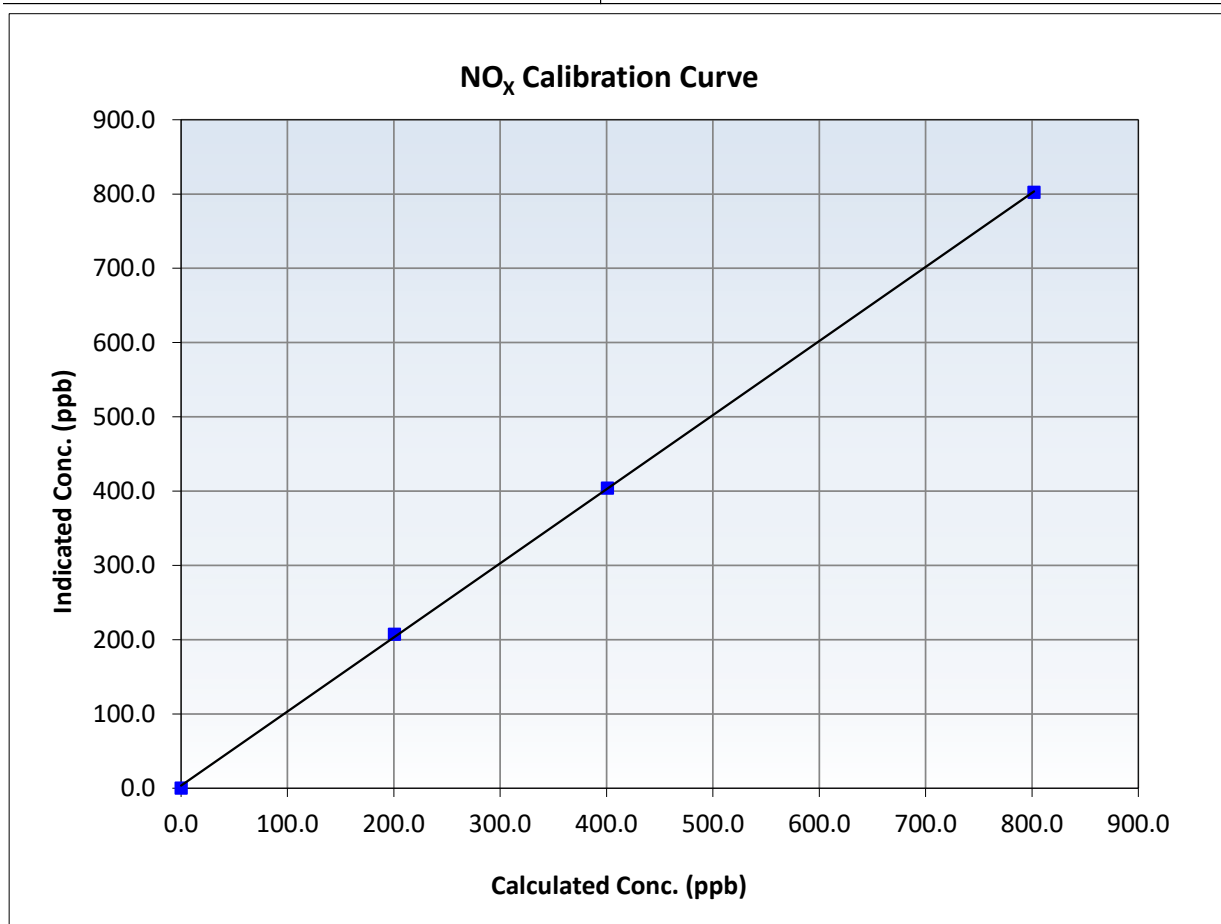
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 28, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:52	End Time (MST):	15:46
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153356

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.4	----	Correlation Coefficient	0.999926	≥0.995
802.0	802.3	0.9996	Slope	0.997561	0.90 - 1.10
401.0	404.1	0.9923	Intercept	3.528075	+/-20
200.5	207.3	0.9671			





# Wood Buffalo Environmental Association

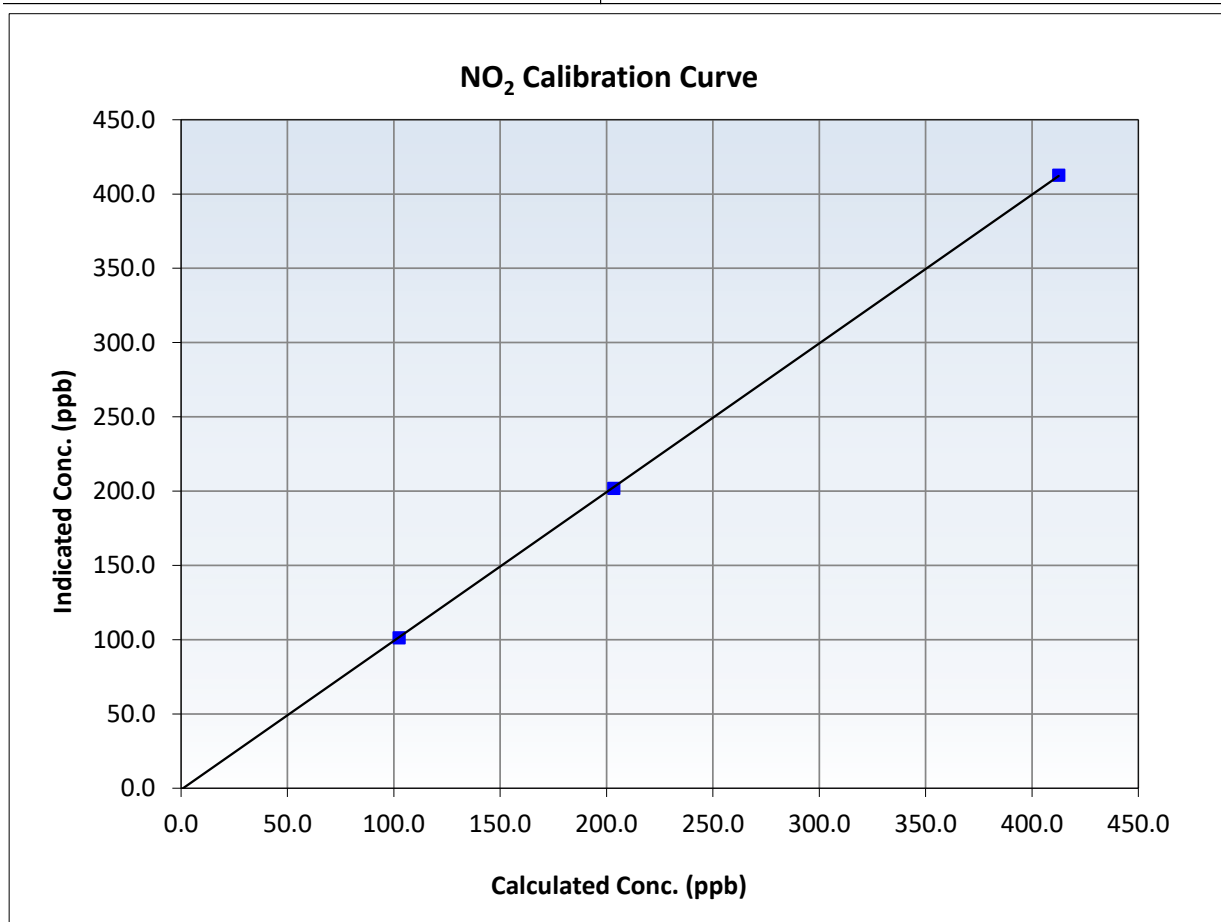
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 28, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:52	End Time (MST):	15:46
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153356

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999978	<i>≥0.995</i>
412.5	412.7	0.9996	Slope	1.001311	<i>0.90 - 1.10</i>
203.3	201.8	1.0076	Intercept	-0.940457	<i>+/-20</i>
102.5	101.2	1.0132			





# Wood Buffalo Environmental Association

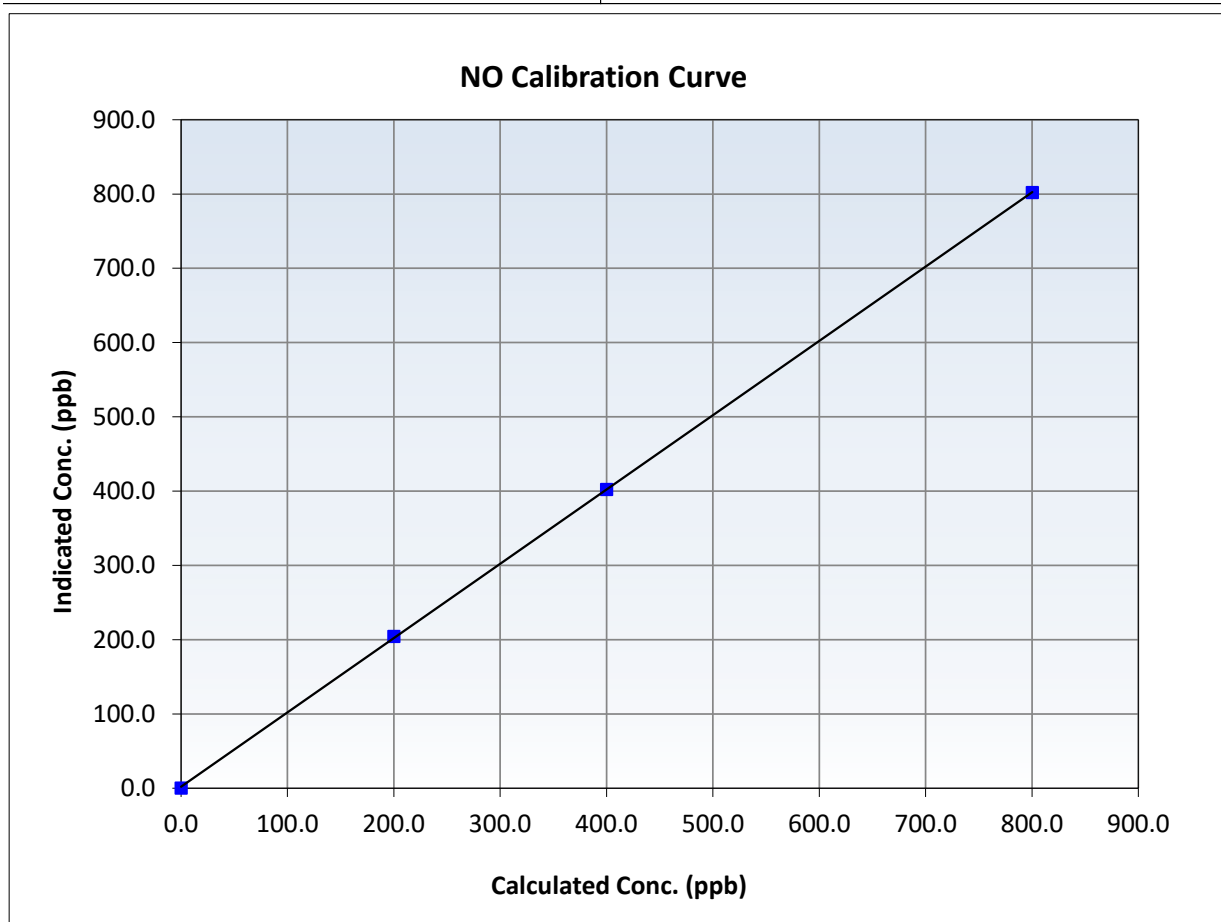
## NO Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 28, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:52	End Time (MST):	15:46
Analyzer make:	Thermo 42i	Analyzer serial #:	1218153356

### Calibration Data

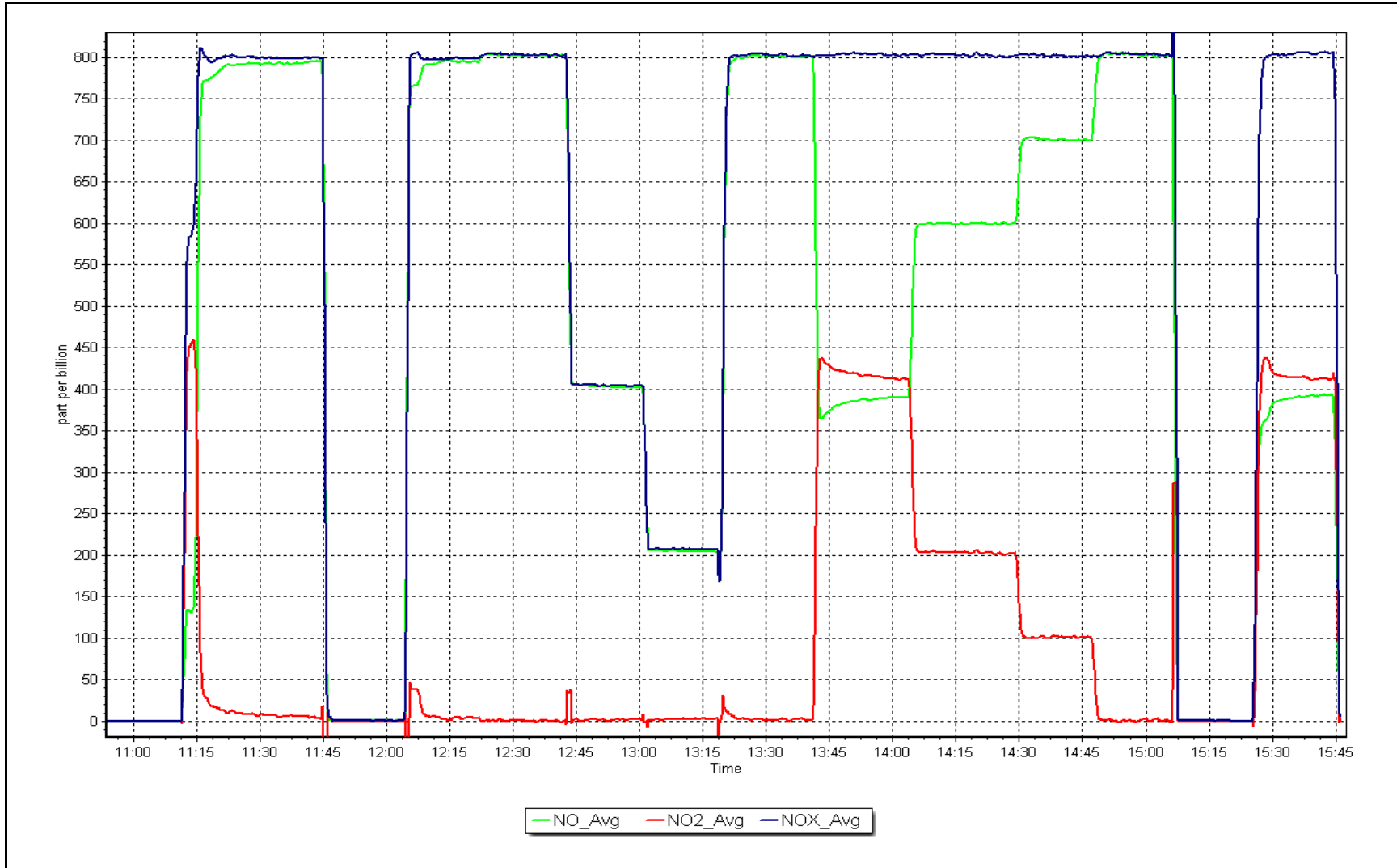
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.4	----	Correlation Coefficient	0.999976	<span style="color: red;">≥0.995</span>
800.3	802.1	0.9978	Slope	1.000277	<span style="color: red;">0.90 - 1.10</span>
400.2	402.2	0.9949	Intercept	2.068051	<span style="color: red;">+/-20</span>
200.1	204.5	0.9783			



NO<sub>x</sub> Calibration Plot

Date: May 14, 2026

Location: Conklin





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Conklin	Station number:	AMS 21
Calibration Date:	May 11, 2026	Last Cal Date:	April 8, 2026
Start time (MST):	10:05	End time (MST):	13:11
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	2656
Calibrator Make/Model:	Teledyne API T700P	Serial Number:	355
ZAG Make/Model:	Teledyne API T701H		

### Analyzer Information

Analyzer make:	Thermo 49i	Analyzer serial #:	1300156233
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997371	1.003371	Backgd or Offset:	0.2	0.2
Calibration intercept:	0.660000	0.860000	Coeff or Slope:	1.218	1.230

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	800.0	0.0	-0.7	----
As found High point	5000	1036.7	400.0	397.0	1.006
As found Mid point					
As found Low point					
Baseline Corr As found:	397.7	Previous response	399.6	*% change	-0.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	800.0	0.0	0.0	----
High point	5000	1037.8	400.0	401.7	0.996
Mid point	5000	865.1	200.0	202.2	0.989
Low point	5000	748.0	100.0	101.9	0.981
As left zero	5000	800.0	0.0	0.2	----
As left span	5000	1033.9	400.0	407.4	0.982
Average Correction Factor					0.989

Notes: Sample inlet filter was changed after as founds. Span adjusted.

Calibration Performed By: Aswin Sasi Kumar



# Wood Buffalo Environmental Association

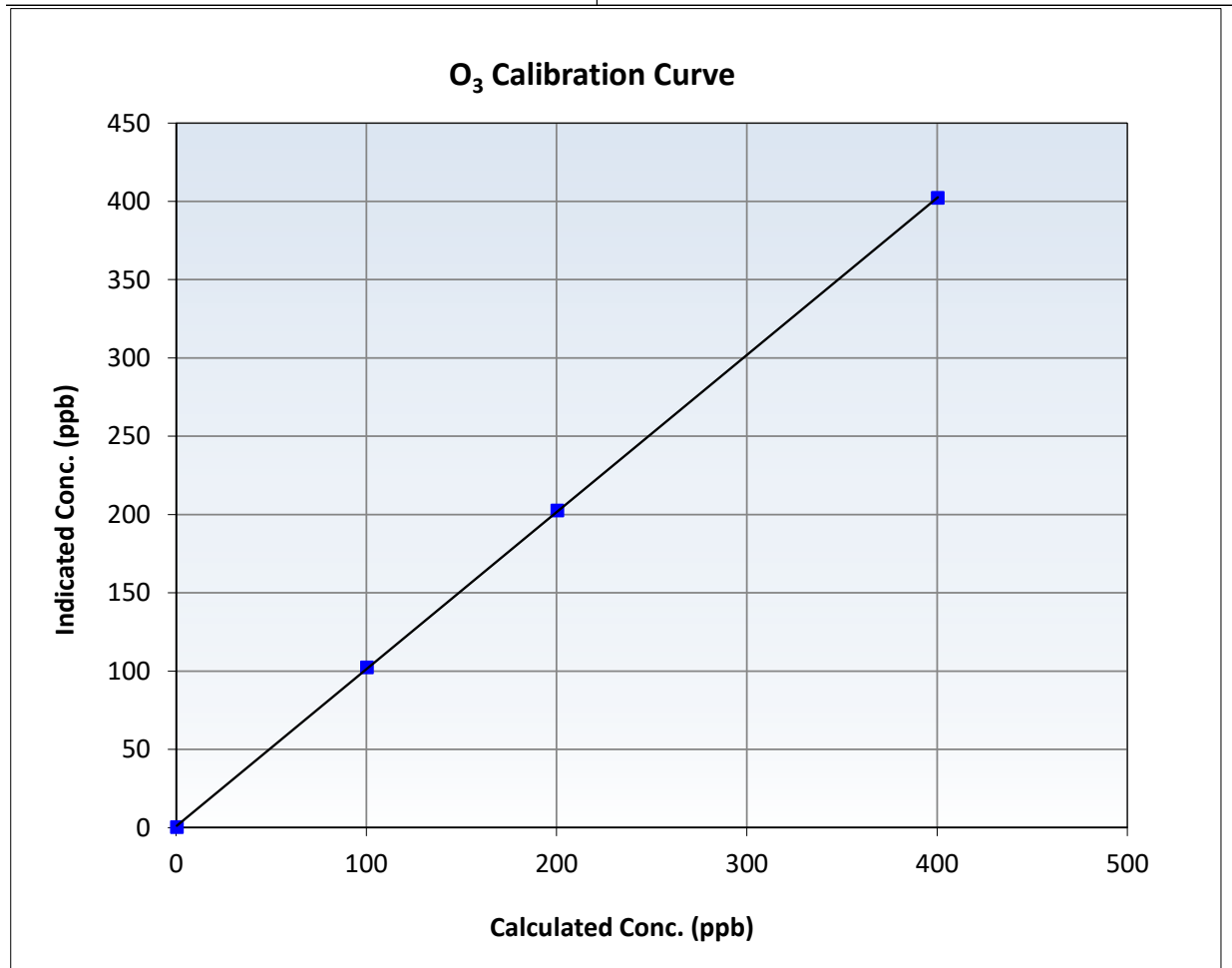
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 8, 2026
Station Name:	Conklin	Station Number:	AMS 21
Start Time (MST):	10:05	End Time (MST):	13:11
Analyzer make:	Thermo 49i	Analyzer serial #:	1300156233

### Calibration Data

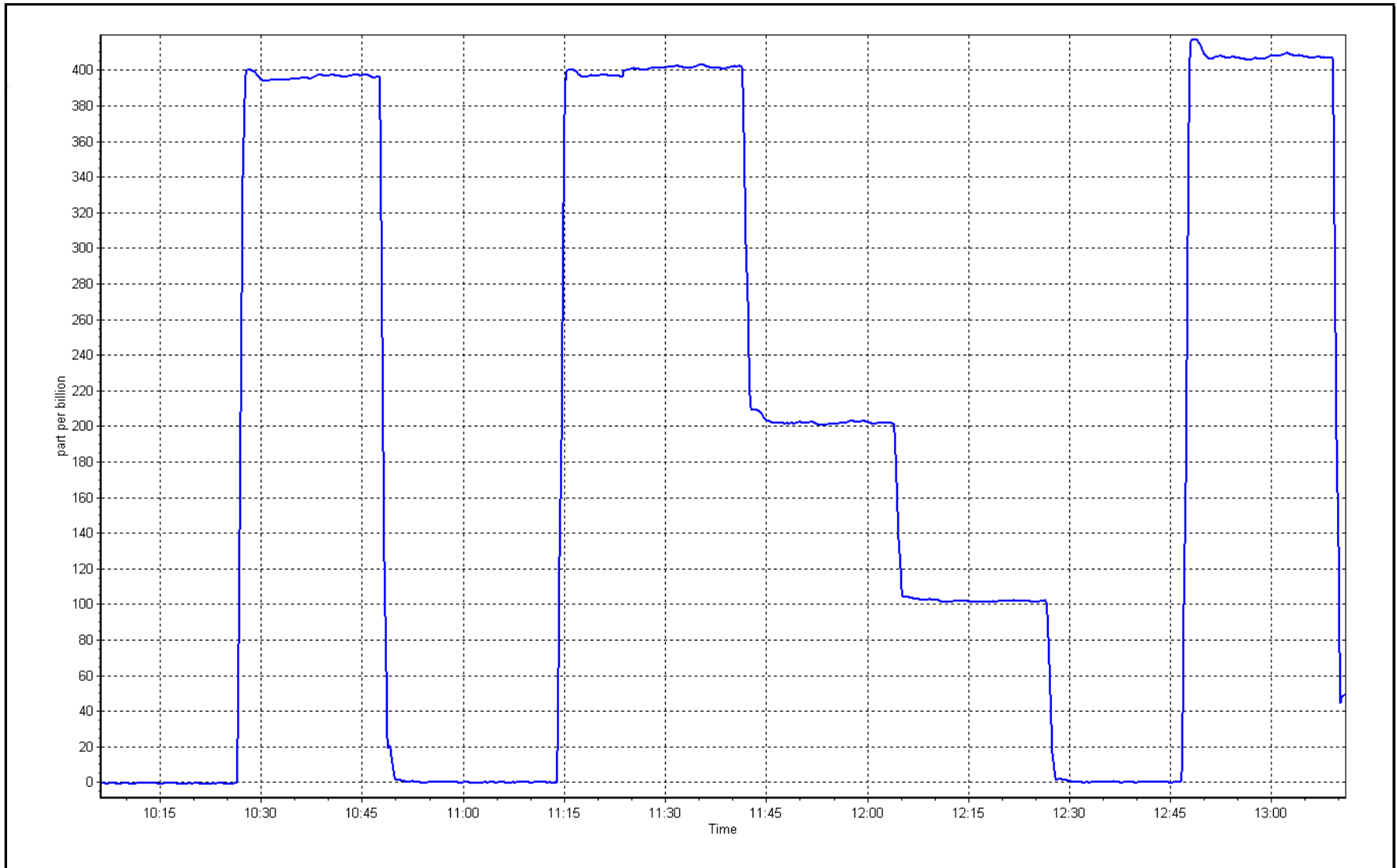
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999978	<span style="color: red;">≥0.995</span>
400.0	401.7	0.9958	Slope	1.003371	<span style="color: red;">0.90 - 1.10</span>
200.0	202.2	0.9891	Intercept	0.860000	<span style="color: red;">+/- 5</span>
100.0	101.9	0.9814			



O<sub>3</sub> Calibration Plot

Date: May 11, 2026

Location: Conklin





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Conklin Station number: AMS 21  
 Calibration Date: May 26, 2026 Last Cal Date: April 29, 2026  
 Start time (MST): 15:11 End time (MST): 15:50

Analyzer Make: API T640 S/N: 1266  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388748  
 Temp/RH standard: Alicat FP-25BT S/N: 388748

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	30.00	30.50	30.00	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	705.30	702.60	705.30	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.02	4.93	5.02	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	46	----	46	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	8.00	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: July 16, 2026  
 Lot No.: 100128-050-040

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	N/A	N/A	N/A	<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: February 26, 2026  
 Date Disposable Filter Changed: February 26, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: February 26, 2026  
 Date RH/T Sensor Cleaned: February 26, 2026

Notes:

Temp, flow and pressure checked. Leak check passed.

Calibration by: Aswin Sasi Kumar



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS22  
JANVIER  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Janvier	Station number:	AMS 22
Calibration Date:	May 7, 2026	Last Cal Date:	April 13, 2026
Start time (MST):	10:22	End time (MST):	13:57
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	49.82	ppm	Cal Gas Exp Date: April 9, 2033
Cal Gas Cylinder #:	CC494522		
Removed Cal Gas Conc:	49.82	ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA		Diff between cyl:
Calibrator Model:	Teledyne API T700		Serial Number: 3806
Zero Air Gen Model:	Teledyne API T701H		Serial Number: 363

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number: 1152430006
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.996905	1.000033	Backgd or Offset:	28.7	28.7
Calibration intercept:	0.916351	0.895933	Coeff or Slope:	1.025	1.025

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.5	----
As found High point	4920	80.3	800.1	797.6	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	797.1	Previous response	798.5	*% change	-0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.5	----
High point	4920	80.3	800.1	801.0	0.999
Mid point	4960	40.2	400.5	401.0	0.999
Low point	4980	20.1	200.3	202.0	0.991
As left zero	5000	0.0	0.0	0.6	----
As left span	4920	80.3	800.1	801.1	0.999
Average Correction Factor:					0.996

Notes: Changed the inlet filter after as founds. No adjustment made.

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

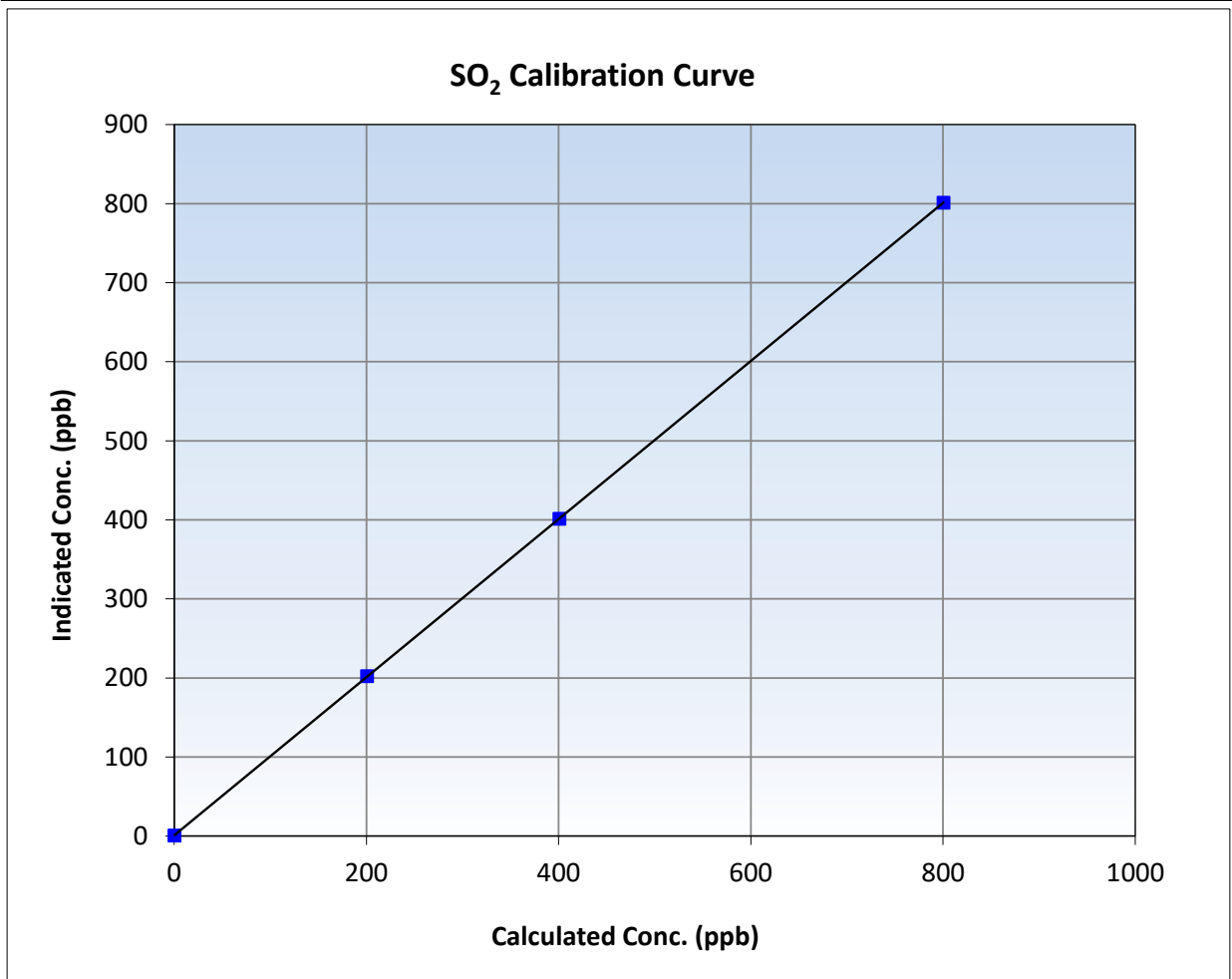
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	10:22	End Time (MST):	13:57
Analyzer make:	Thermo 43i	Analyzer serial #:	1152430006

### Calibration Data

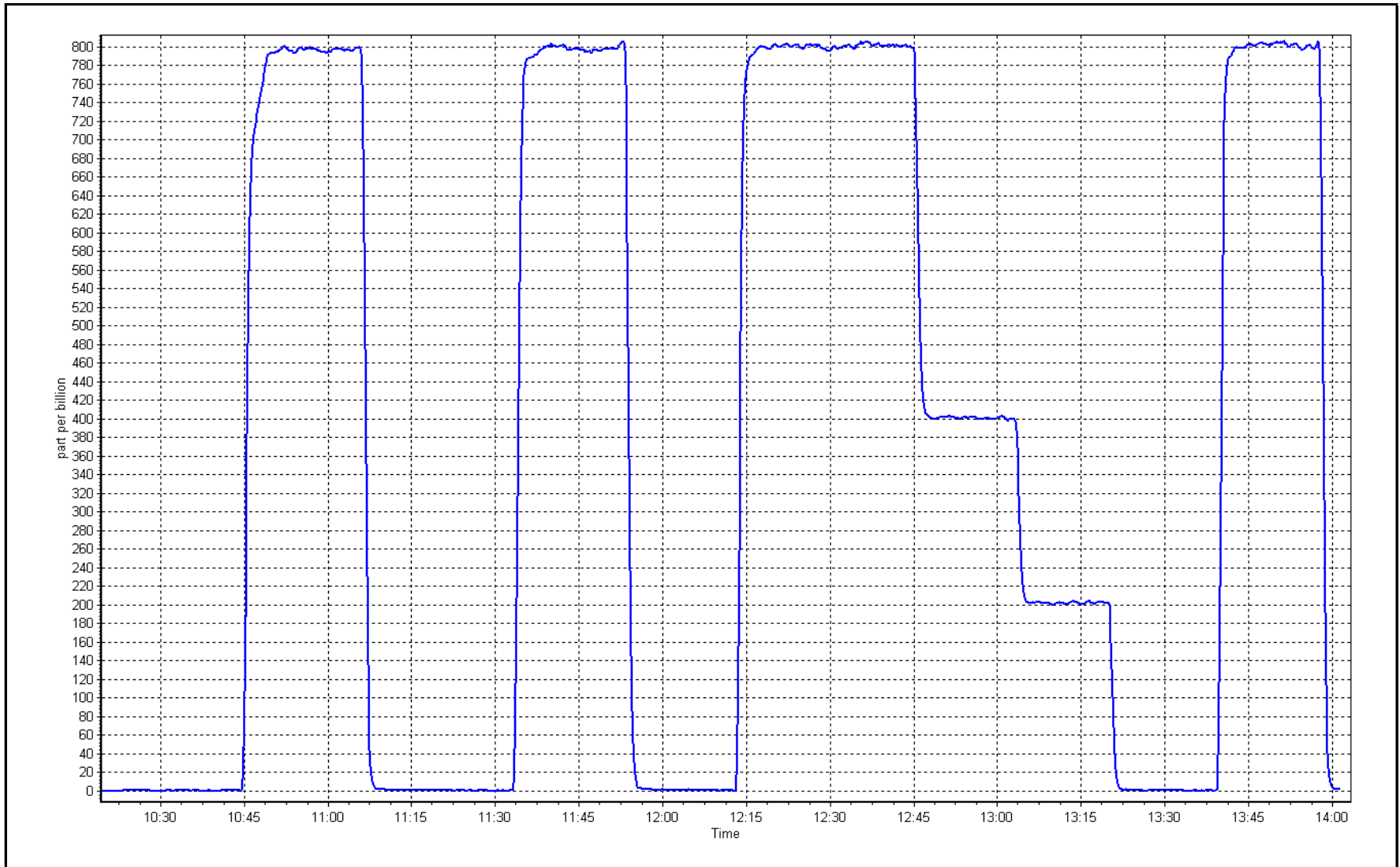
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.5	----	Correlation Coefficient	0.999997	<b>≥0.995</b>
800.1	801.0	0.9988	Slope	1.000033	<b>0.90 - 1.10</b>
400.5	401.0	0.9988	Intercept	0.895933	<b>+/-30</b>
200.3	202.0	0.9914			



SO2 Calibration Plot

Date: May 7, 2026

Location: Janvier





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Janvier	Station number:	AMS 22
Calibration Date:	May 6, 2026	Last Cal Date:	April 15, 2026
Start time (MST):	9:38	End time (MST):	13:56
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.02	ppm	Cal Gas Exp Date:	November 15, 2026
Cal Gas Cylinder #:	CC424047			
Removed Cal Gas Conc:	5.02	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	3806
ZAG Make/Model:	Teledyne API T701		Serial Number:	691

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680031
Converter make:	CDN-101	Converter serial #:	620
Analyzer Range:	0 - 100 ppb	Converter Temp:	850 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.991097	0.997237	Backgd or Offset:	4.65	3.70
Calibration intercept:	-0.279591	0.180590	Coeff or Slope:	1.307	1.138

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.5	----
As found High point	4920	79.7	80.0	76.7	1.037
As found Mid point	4960	39.8	40.0	38.0	1.038
As found Low point	4980	19.9	20.0	18.4	1.057
New cylinder response					
Baseline Corr As found:	77.2	Prev response:	79.03	*% change:	-2.4%
Baseline Corr 2nd AF pt:	38.5	AF Slope:	0.966251	AF Intercept:	-0.660172
Baseline Corr 3rd AF pt:	18.9	AF Correlation:	0.999973	* = +/-5% change initiates investigation	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4920	79.7	80.0	79.9	1.002
Mid point	4960	39.8	40.0	40.1	0.997
Low point	4980	19.9	20.0	20.3	0.984
As left zero	5000	0.0	0.0	0.3	----
As left span	4920	79.7	80.0	79.0	1.013
SO2 Scrubber Check	4920	79.8	798.0	0.1	----
Date of last scrubber change:	6-May-26			Ave Corr Factor	0.994
Date of last converter efficiency test:					

Notes: Changed the inlet filter after as founds. Scrubber test performed, Adjusted zero and span.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

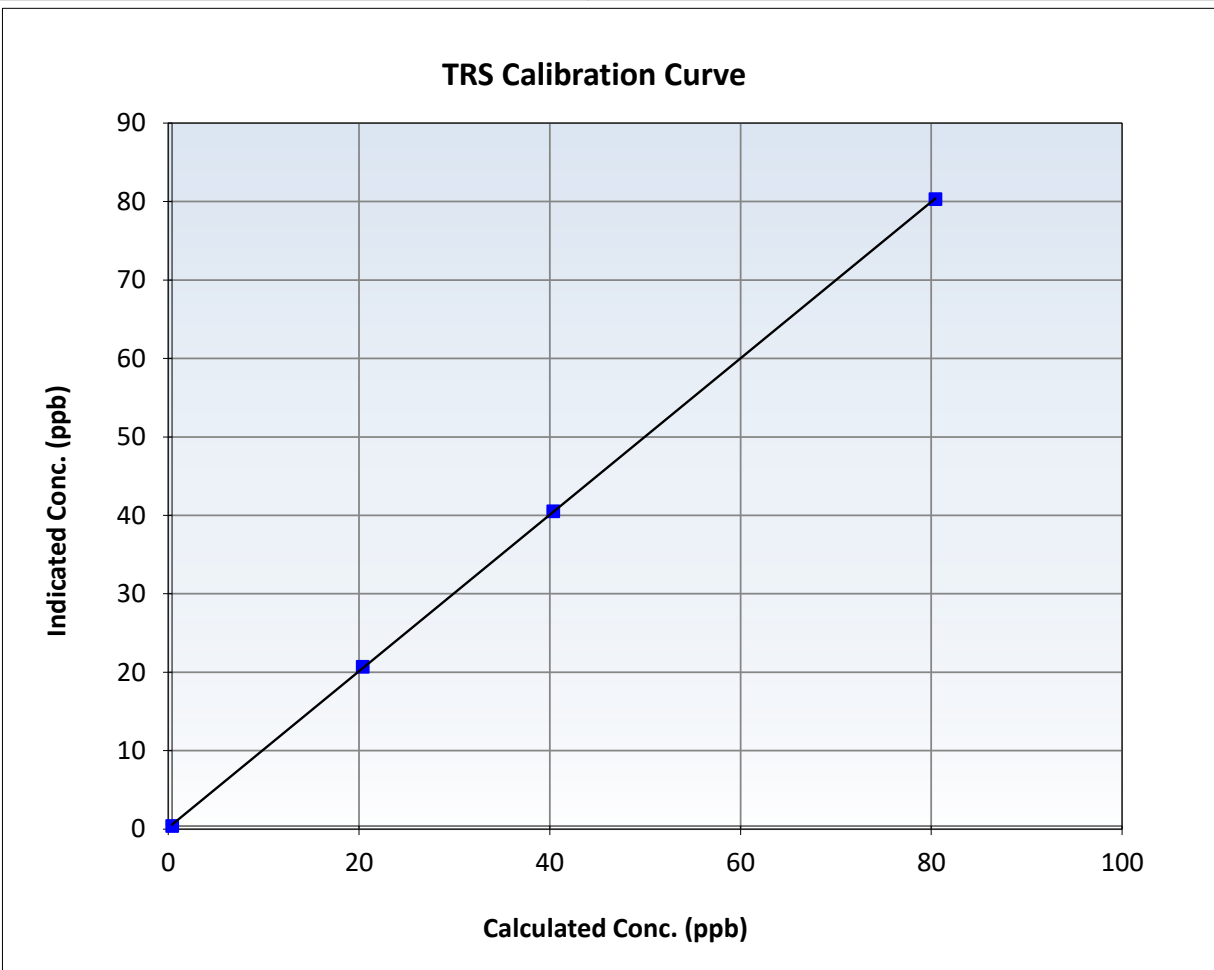
## TRS Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 15, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:38	End Time (MST):	13:56
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680031

### Calibration Data

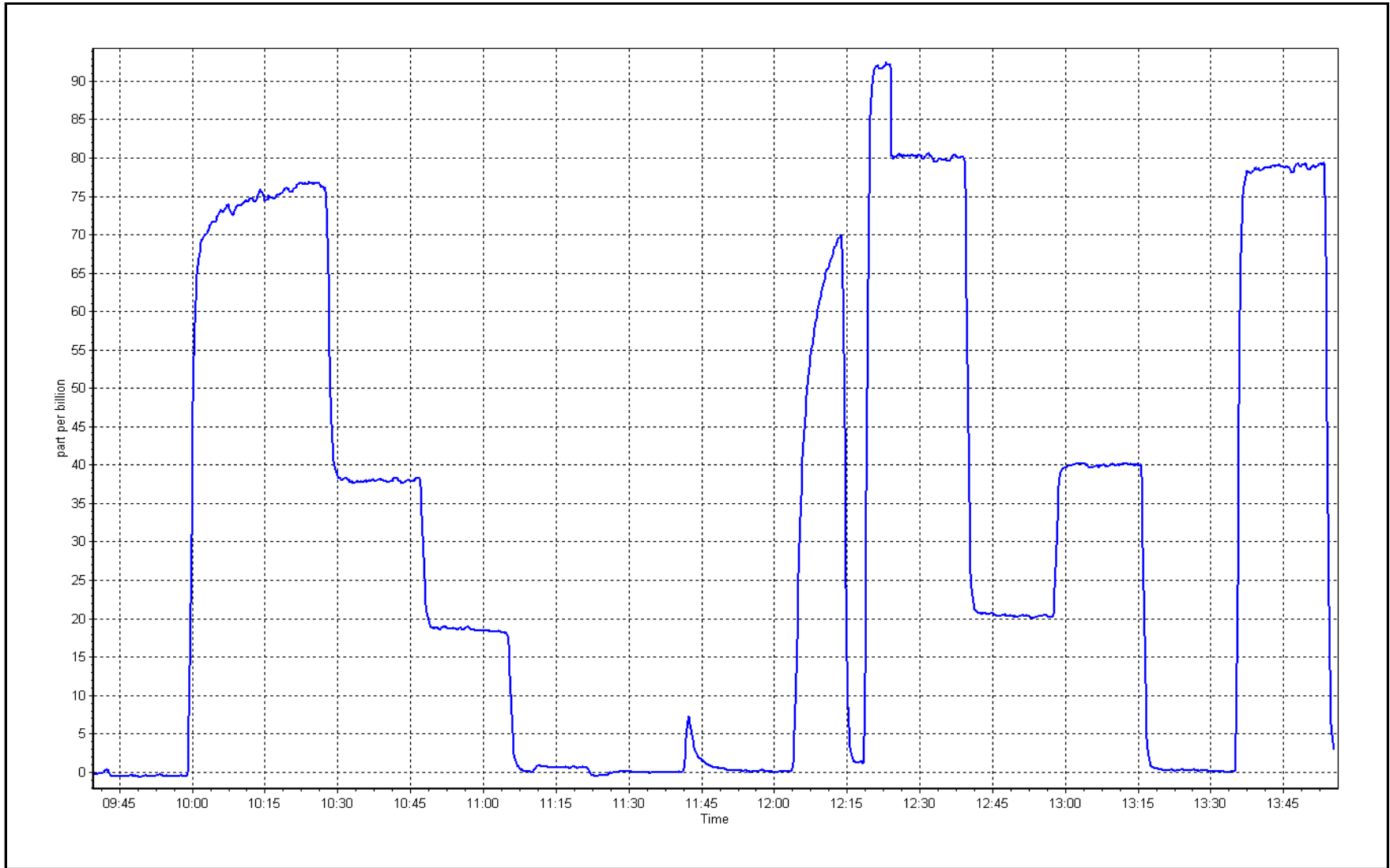
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999976	$\geq 0.995$
80.0	79.9	1.0015	Slope	0.997237	$0.90 - 1.10$
40.0	40.1	0.9965	Intercept	0.180590	$\pm 3$
20.0	20.3	0.9842			



TRS Calibration Plot

Date: May 6, 2026

Location: Janvier





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Janvier	Station number:	AMS 22
Calibration Date:	May 21, 2026	Last Cal Date:	May 6, 2026
Start time (MST):	8:39	End time (MST):	12:51
Reason:	Maintenance		

### Calibration Standards

Cal Gas Concentration:	5.02	ppm	Cal Gas Exp Date:	November 15, 2026
Cal Gas Cylinder #:	CC424047			
Removed Cal Gas Conc:	5.02	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	3806
ZAG Make/Model:	Teledyne API T701		Serial Number:	691

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680031
Converter make:	CDN-101	Converter serial #:	620
Analyzer Range	0 - 100 ppb	Converter Temp:	850 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997237	0.994373	Backgd or Offset:	3.70	3.83
Calibration intercept:	0.180590	0.380808	Coeff or Slope:	1.138	1.202

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4920	79.7	80.0	72.7	1.099
As found Mid point	4960	39.8	40.0	36.0	1.107
As found Low point	4980	19.9	20.0	18.0	1.104
New cylinder response					
Baseline Corr As found:	72.8	Prev response:	79.98	*% change:	-9.9%
Baseline Corr 2nd AF pt:	36.1	AF Slope:	0.909699	AF Intercept:	-0.181382
Baseline Corr 3rd AF pt:	18.1	AF Correlation:	0.999985	* = > +/-5% change initiates investigation	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4920	79.7	80.0	79.6	1.005
Mid point	4960	39.8	40.0	40.7	0.982
Low point	4980	19.9	20.0	20.5	0.975
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	79.7	80.0	80.2	0.998
SO2 Scrubber Check	4920	79.8	798.0	-0.1	----
Date of last scrubber change:	6-May-26			Ave Corr Factor	0.987
Date of last converter efficiency test:					

Notes: Here to address low span response. Changed the inlet filter after as founds. Scrubber test performed, Adjusted span only.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

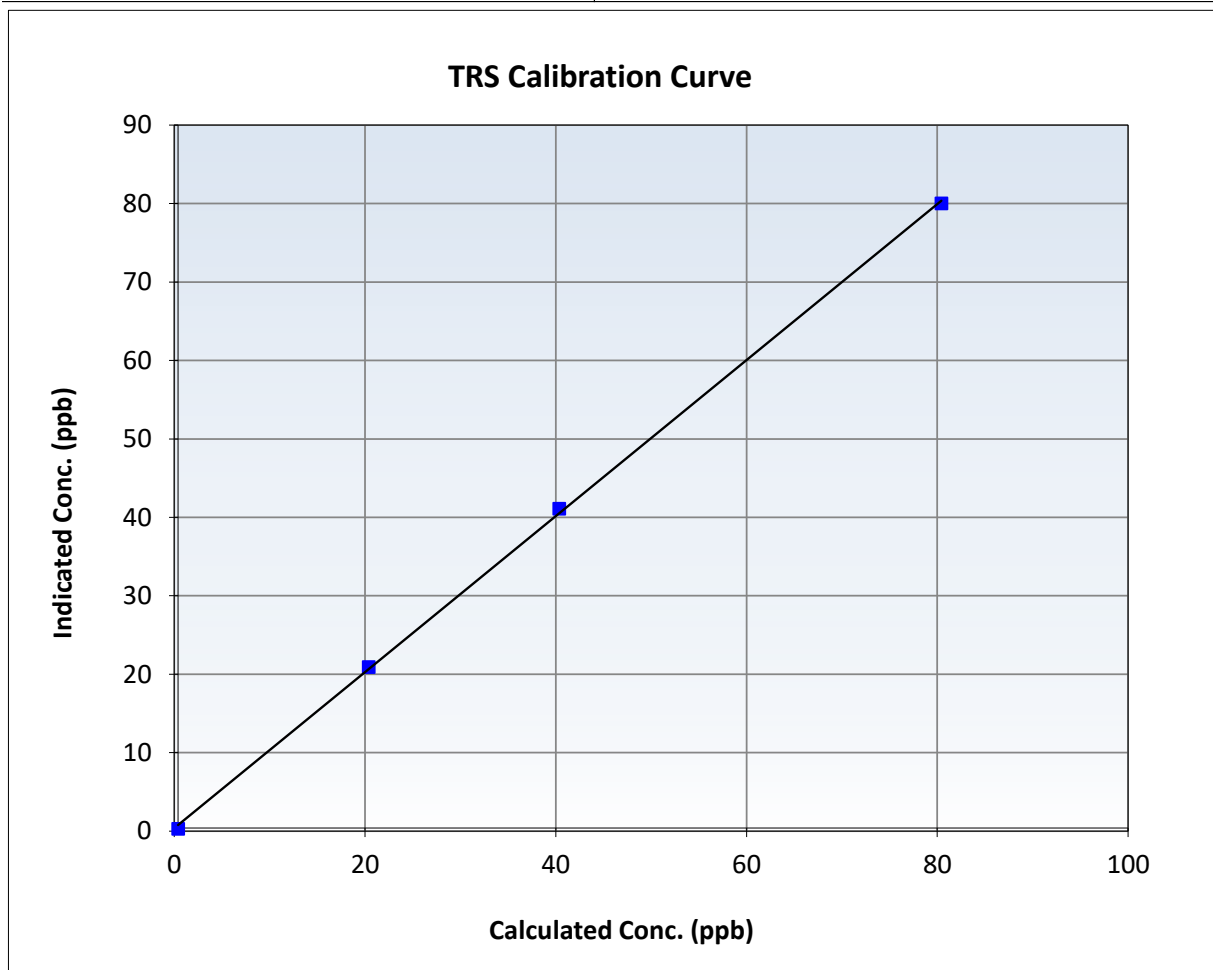
## TRS Calibration Summary

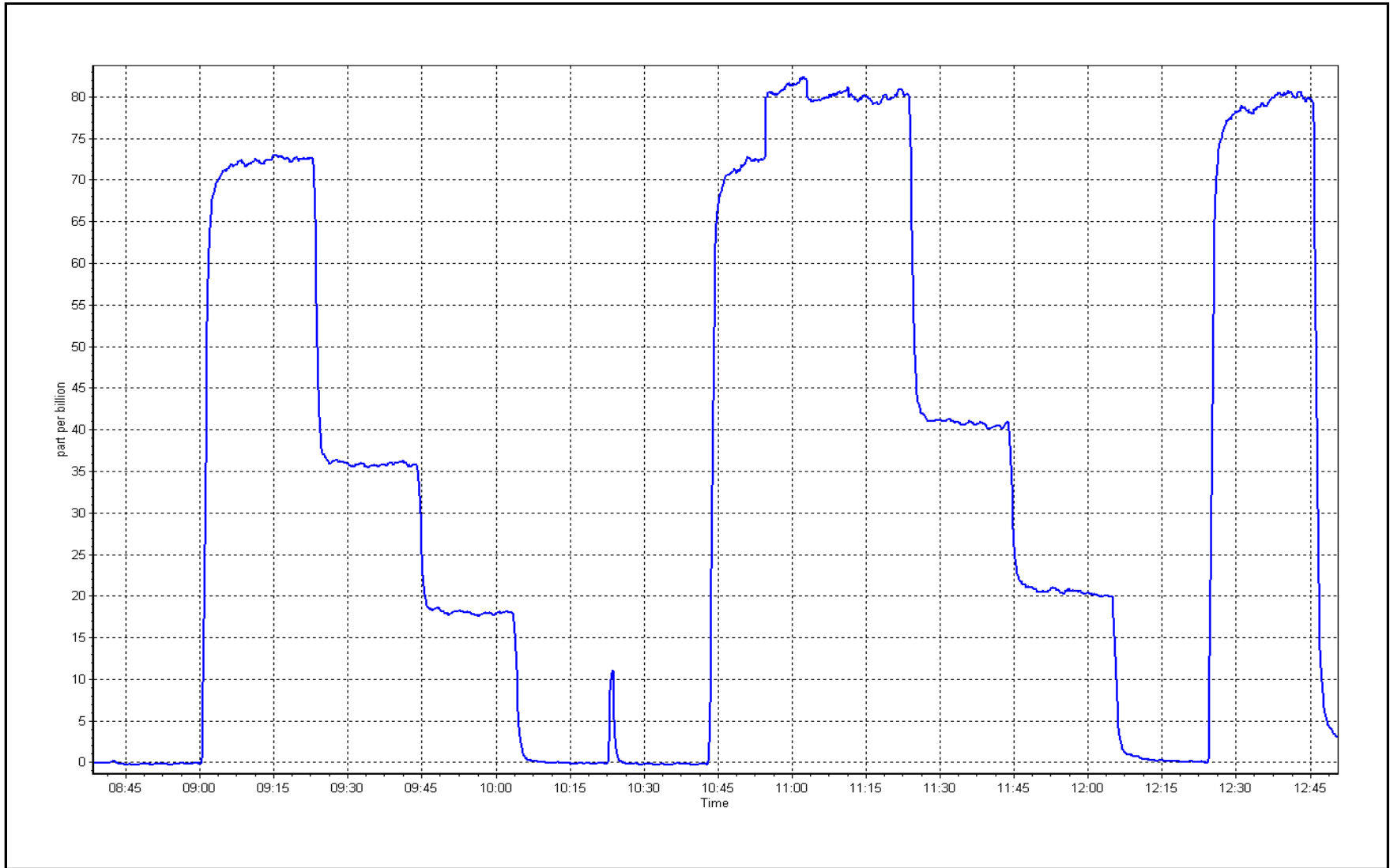
### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	May 6, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	8:39	End Time (MST):	12:51
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1151680031

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999781	$\geq 0.995$
80.0	79.6	1.0053	Slope	0.994373	$0.90 - 1.10$
40.0	40.7	0.9818	Intercept	0.380808	$\pm 3$
20.0	20.5	0.9746			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Janvier	Station number:	AMS 22
Calibration Date:	May 7, 2026	Last Cal Date:	April 13, 2026
Start time (MST):	10:22	End time (MST):	13:57
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC494522	Cal Gas Expiry Date:	April 9, 2033
CH4 Cal Gas Conc.	499.5 ppm	CH4 Equiv Conc.	1057.5 ppm
C3H8 Cal Gas Conc.	202.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH4 Conc.	499.5 ppm	CH4 Equiv Conc.	1057.5 ppm
Removed C3H8 Conc.	202.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API 700	Serial Number:	3806
Zero Air Gen model:	Teledyne API 701H	Serial Number:	363

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1317958219
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.61E-04	2.67E-04	5.48E-05	5.54E-05
CH4 Retention time:	11.8	11.8	163502	161785
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	---
As found High point	4920	80.3	16.98	17.04	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.04	Prev response	16.90	*% change	0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	---
High point	4920	80.3	16.98	17.06	0.995
Mid point	4960	40.2	8.50	8.73	0.974
Low point	4980	20.1	4.25	4.44	0.958
As left zero	5000	0.0	0.00	0.00	---
As left span	4920	80.3	16.98	17.93	0.947
Average Correction Factor					0.976

Notes: Changed sample inlet filter after as founds. Adjusted the span only.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.3	8.96	8.97	0.999
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.97	Prev response	8.91	*% change	0.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.3	8.96	9.02	0.993
Mid point	4960	40.2	4.49	4.63	0.969
Low point	4980	20.1	2.24	2.36	0.952
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	8.96	9.52	0.941
Average Correction Factor					0.971

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.3	8.02	8.08	0.993
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.08	Prev response	8.00	*% change	1.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4920	80.3	8.02	8.04	0.997
Mid point	4960	40.2	4.02	4.10	0.980
Low point	4980	20.1	2.01	2.08	0.964
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	8.02	8.40	0.955
Average Correction Factor					0.981

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.996833	1.002700
THC Cal Offset:	-0.025896	0.102989
CH <sub>4</sub> Cal Slope:	0.999406	1.000900
CH <sub>4</sub> Cal Offset:	-0.021228	0.041525
NMHC Cal Slope:	0.994594	1.004414
NMHC Cal Offset:	-0.004668	0.062063

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

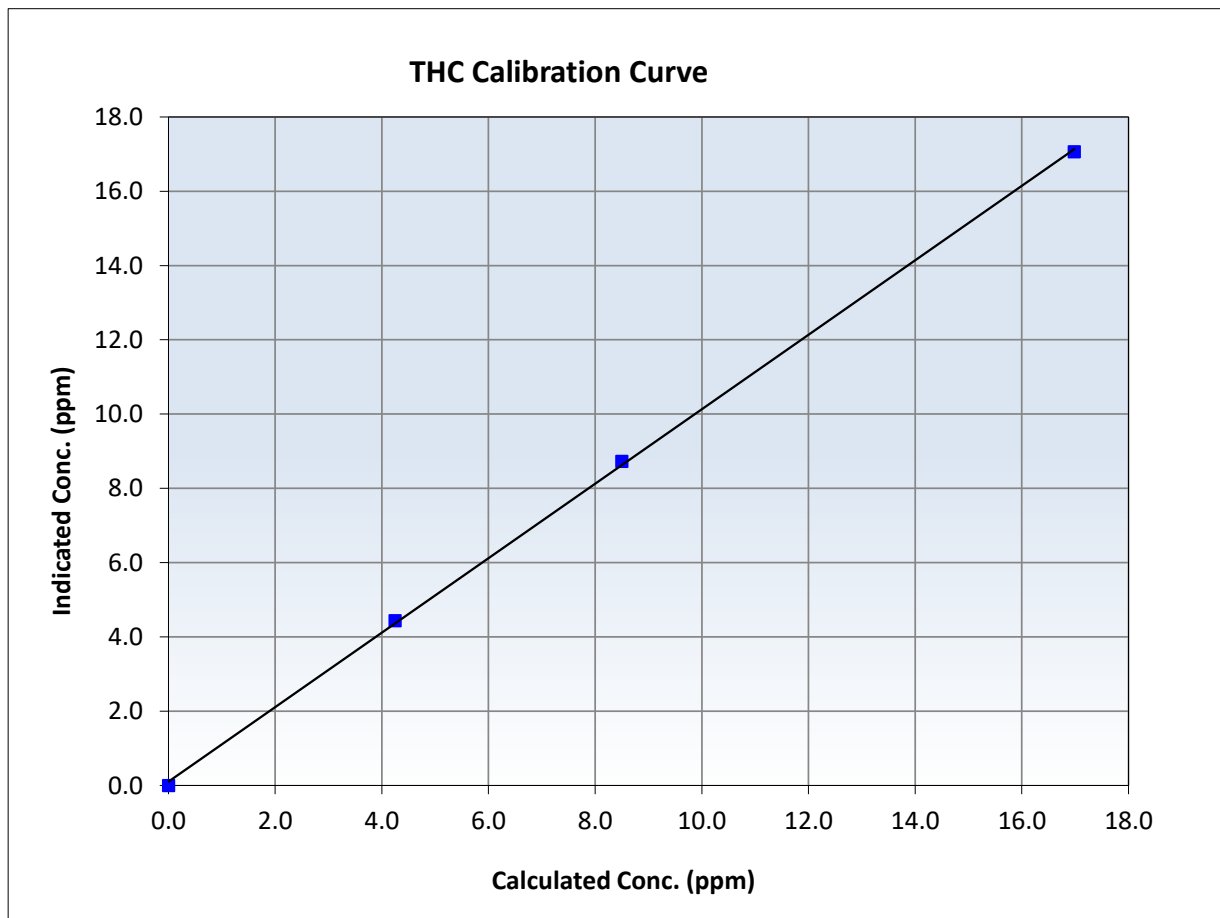
## THC Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	10:22	End Time (MST):	13:57
Analyzer make:	Thermo 55i	Analyzer serial #:	1317958219

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999812	<span style="color: red;">≥0.995</span>
16.98	17.06	0.9952	Slope	1.002700	<span style="color: red;">0.90 - 1.10</span>
8.50	8.73	0.9744	Intercept	0.102989	<span style="color: red;">+/-0.5</span>
4.25	4.44	0.9579			





# Wood Buffalo Environmental Association

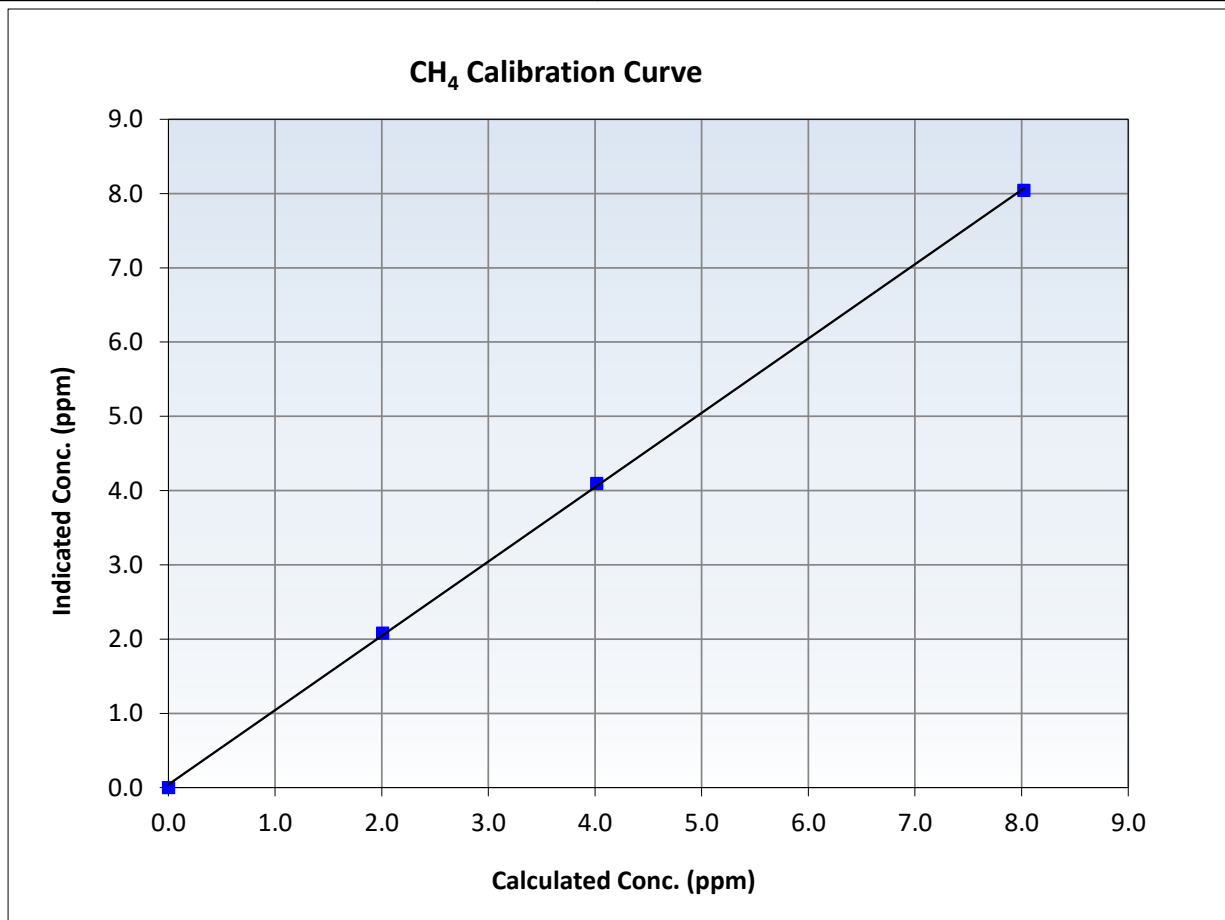
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	10:22	End Time (MST):	13:57
Analyzer make:	Thermo 55i	Analyzer serial #:	1317958219

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999866	<i>≥0.995</i>
8.02	8.04	0.9972	Slope	1.000900	<i>0.90 - 1.10</i>
4.02	4.10	0.9799	Intercept	0.041525	<i>+/-0.5</i>
2.01	2.08	0.9644			





# Wood Buffalo Environmental Association

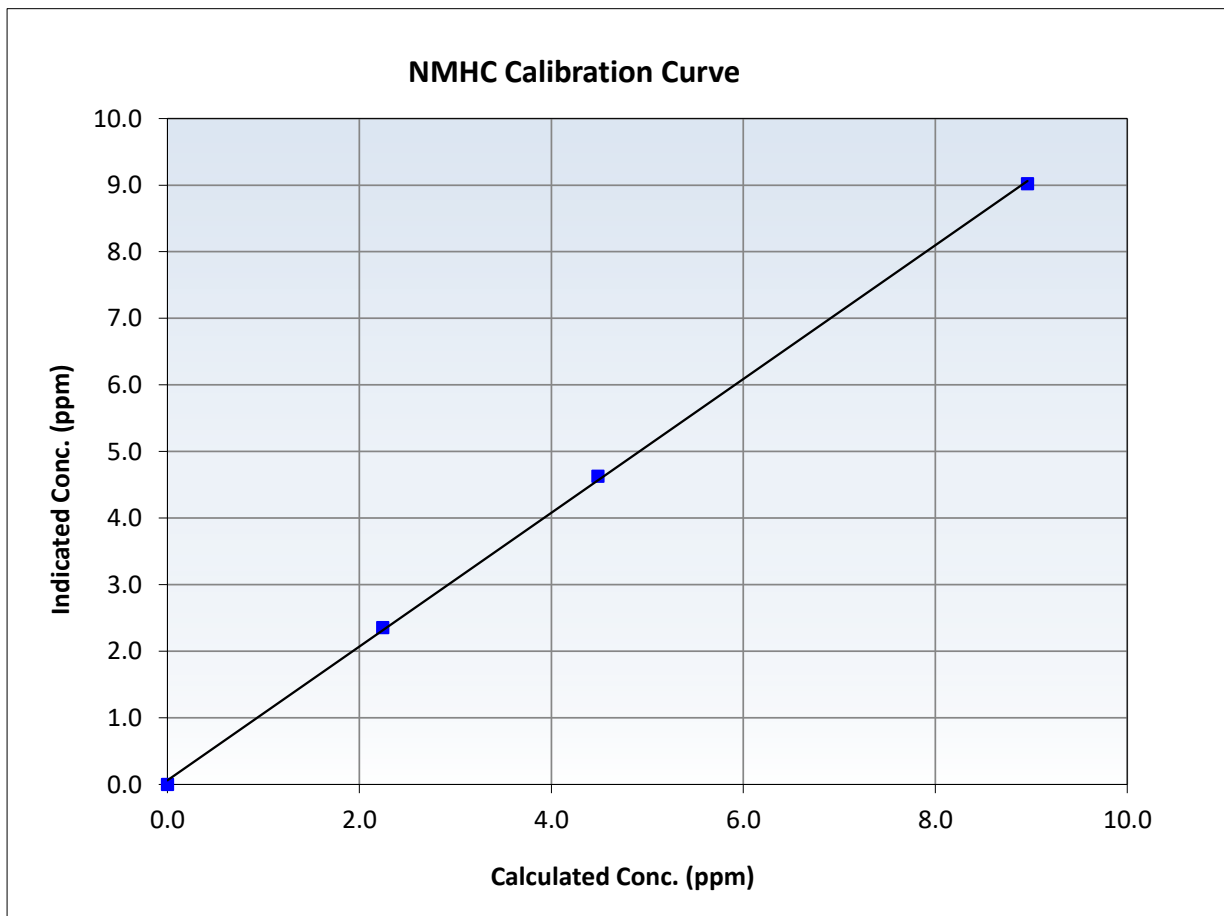
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 13, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	10:22	End Time (MST):	13:57
Analyzer make:	Thermo 55i	Analyzer serial #:	1317958219

### Calibration Data

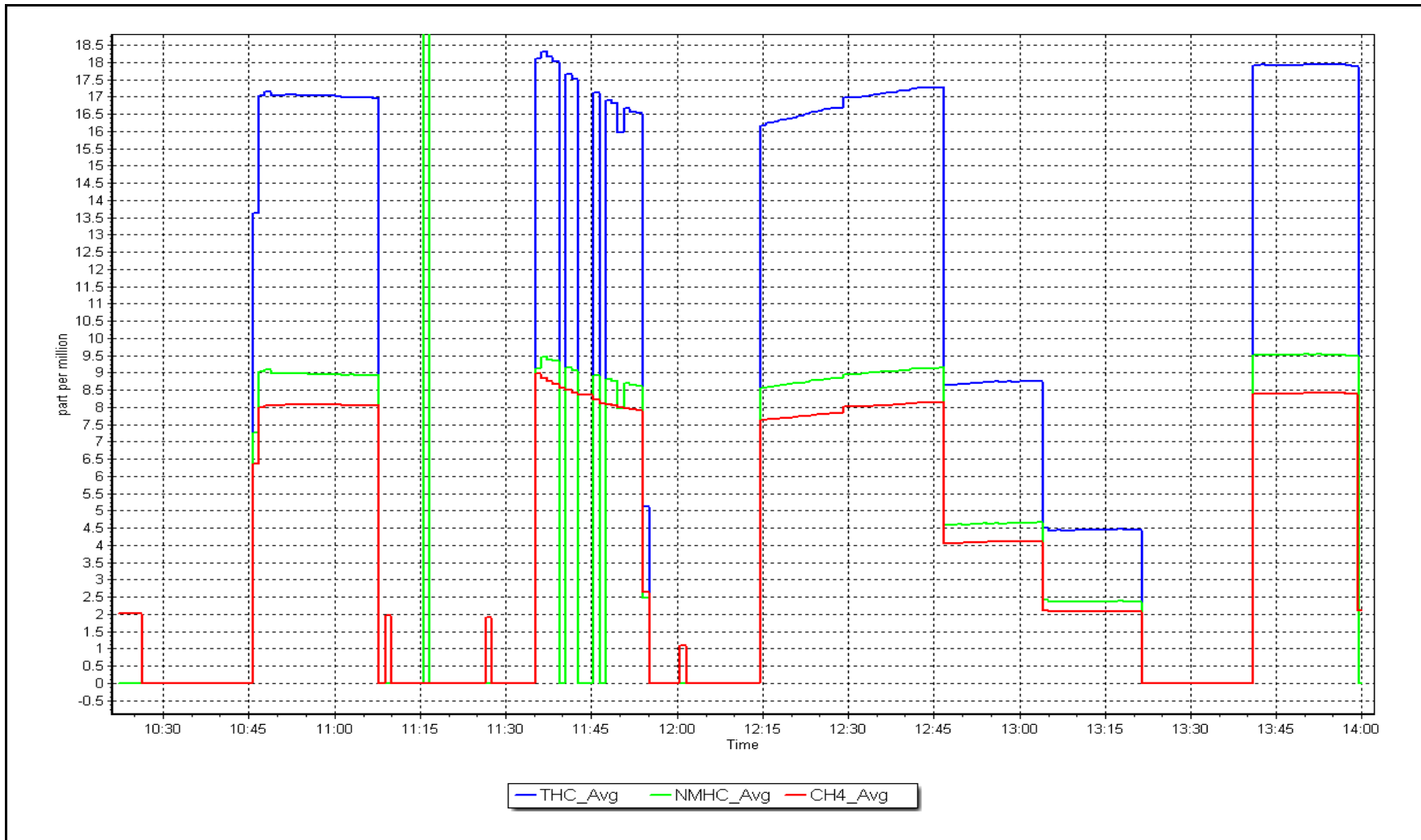
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999750	<i>≥0.995</i>
8.96	9.02	0.9933	Slope	1.004414	<i>0.90 - 1.10</i>
4.49	4.63	0.9691	Intercept	0.062063	<i>+/-0.5</i>
2.24	2.36	0.9516			



NMHC Calibration Plot

Date: May 7, 2026

Location: Janvier





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Janvier	Station number:	AMS 22
Calibration Date:	May 11, 2026	Last Cal Date:	May 7, 2026
Start time (MST):	10:51	End time (MST):	12:15
Reason:	Cylinder Change		

### Calibration Standards

Gas Cert Reference:	CC494522	Cal Gas Expiry Date:	April 9, 2033
CH <sub>4</sub> Cal Gas Conc.	499.5 ppm	CH <sub>4</sub> Equiv Conc.	1057.5 ppm
C <sub>3</sub> H <sub>8</sub> Cal Gas Conc.	202.9 ppm		
Removed Gas Cert:	NA	Removed Gas Expiry:	NA
Removed CH <sub>4</sub> Conc.	499.5 ppm	CH <sub>4</sub> Equiv Conc.	1057.5 ppm
Removed C <sub>3</sub> H <sub>8</sub> Conc.	202.9 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne API 700	Serial Number:	3806
Zero Air Gen model:	Teledyne API 701H	Serial Number:	363

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1317958219
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH <sub>4</sub> SP Ratio:	2.61E-04	2.67E-04	NMHC SP Ratio:	5.48E-05	5.54E-05
CH <sub>4</sub> Retention time:	11.8	11.8	NMHC Peak Area:	163502	161785
Zero Chromatogram:	OFF	OFF	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.3	16.98	17.28	0.983
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.28	Prev response	17.13	*% change	0.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	16.98	17.22	0.986
Average Correction Factor					0.986

Notes: Changed sample inlet filter and H2 after as founds. No adjustment needed.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.3	8.96	9.02	0.993
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.02	Prev response	9.06	<b>*% change</b>	-0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		<b>* = &gt; +/-5% change initiates investigation</b>	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	8.96	8.97	0.999
Average Correction Factor					

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4920	80.3	8.02	8.26	0.971
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.26	Prev response	8.07	<b>*% change</b>	2.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		<b>* = &gt; +/-5% change initiates investigation</b>	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4920	80.3	8.02	8.25	0.972
Average Correction Factor					

### Calibration Statistics

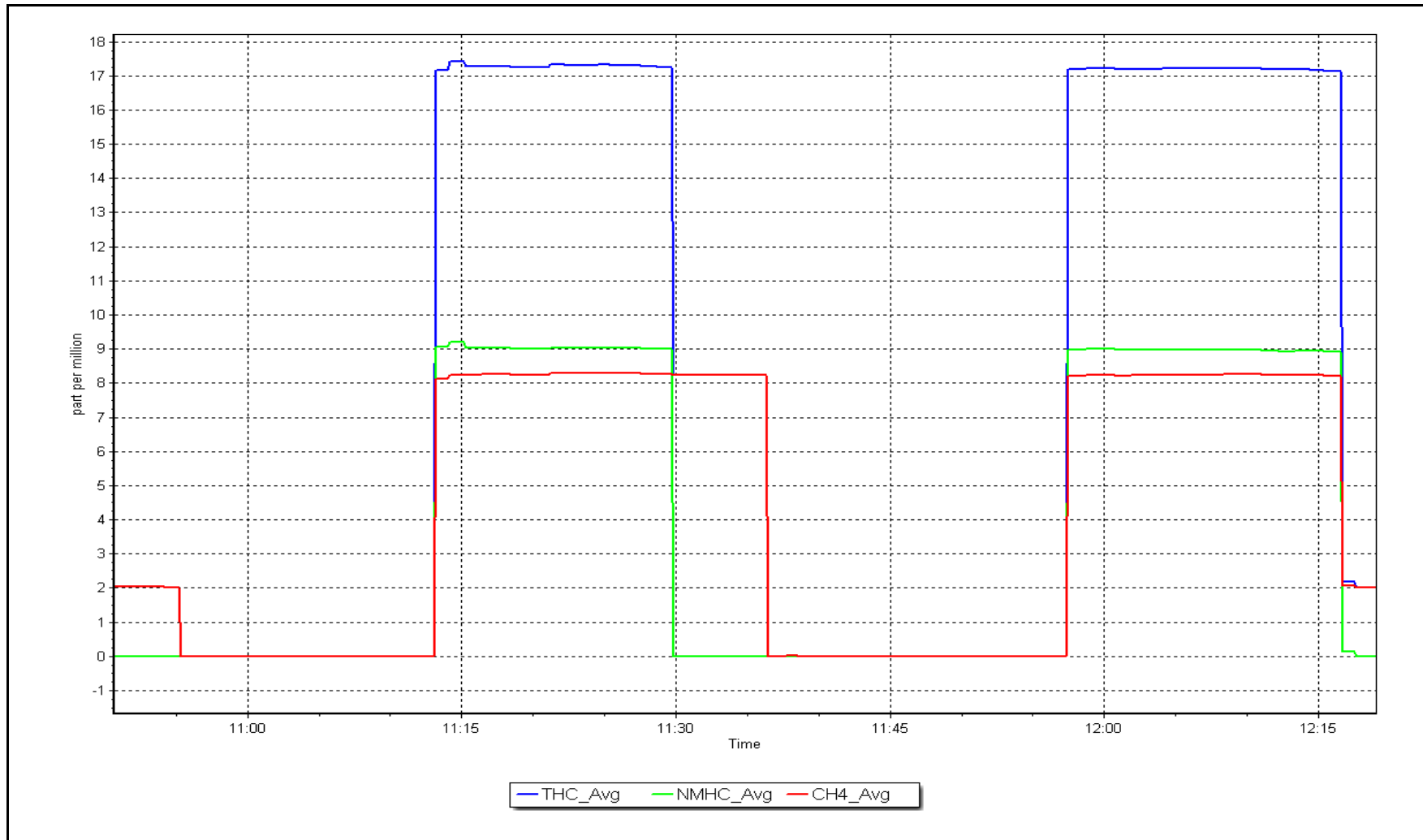
	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	1.002700	
THC Cal Offset:	0.102989	
CH <sub>4</sub> Cal Slope:	1.000900	
CH <sub>4</sub> Cal Offset:	0.041525	
NMHC Cal Slope:	1.004414	
NMHC Cal Offset:	0.062063	

Calibration Performed By: Jan Castro

NMHC Calibration Plot

Date: May 11, 2026

Location: Janvier





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Janvier  
 Station number: AMS 22  
 Calibration Date: May 13, 2026  
 Last Cal Date: April 29, 2026  
 Start time (MST): 9:39  
 End time (MST): 14:20  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0047765  
 NOX Cal Gas Conc: 48.90 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 48.90 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: March 11, 2031  
 NO Cal Gas Conc: 48.80 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 48.80 ppm  
 NO gas Diff:  
 Serial Number: 3806  
 Serial Number: 691

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.3	-0.3	0.0	----	----
AF High point	4918	82.0	802.0	800.3	1.6	800.3	793.3	7.0	1.0017	1.0085
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 803.6 ppb		NO = 800.4 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.4%	
Baseline Corr 1st pt	NO <sub>x</sub> = 800.6 ppb		NO = 793.6 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -0.9%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found NO <sub>x</sub> r <sup>2</sup> :		Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found NO r <sup>2</sup> :		NO SI:	NO Int:	
						As found NO <sub>2</sub> r <sup>2</sup> :		NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1229254994

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.003003	0.996219
NO <sub>x</sub> Cal Offset:	-0.735905	-0.856112
NO Cal Slope:	1.002716	0.995062
NO Cal Offset:	-2.116053	-2.136265
NO <sub>2</sub> Cal Slope:	1.003673	1.002504
NO <sub>2</sub> Cal Offset:	0.185553	0.758492

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.034	1.034	NO bkgnd or offset:	2.8	2.8
NOX coeff or slope:	0.997	0.997	NOX bkgnd or offset:	2.9	3.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	175.3	172.6

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOX Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
High point	4918	82.0	802.0	800.3	1.6	798.6	795.4	3.2	1.0042	1.0062
Mid point	4960	41.0	400.9	400.1	0.8	397.7	394.5	3.2	1.0080	1.0141
Low point	4980	20.5	200.5	200.1	0.4	198.4	195.2	3.3	1.0104	1.0249
As left zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
As left span	4918	82.0	802.0	401.6	400.4	799.5	401.6	397.9	1.0031	1.0000
Average Correction Factor									1.0076	1.0151

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	793.1	397.6	397.1	398.5	0.9966	100.3%
Mid GPT point	793.1	595.9	198.8	200.5	0.9917	100.8%
Low GPT point	793.1	693.4	101.3	103.1	0.9829	101.7%
Average Correction Factor					0.9904	101.0%

Notes:

Sample inlet filter was changed after as founds. No adjustments made.

Calibration Performed By:

Param Kaur



# Wood Buffalo Environmental Association

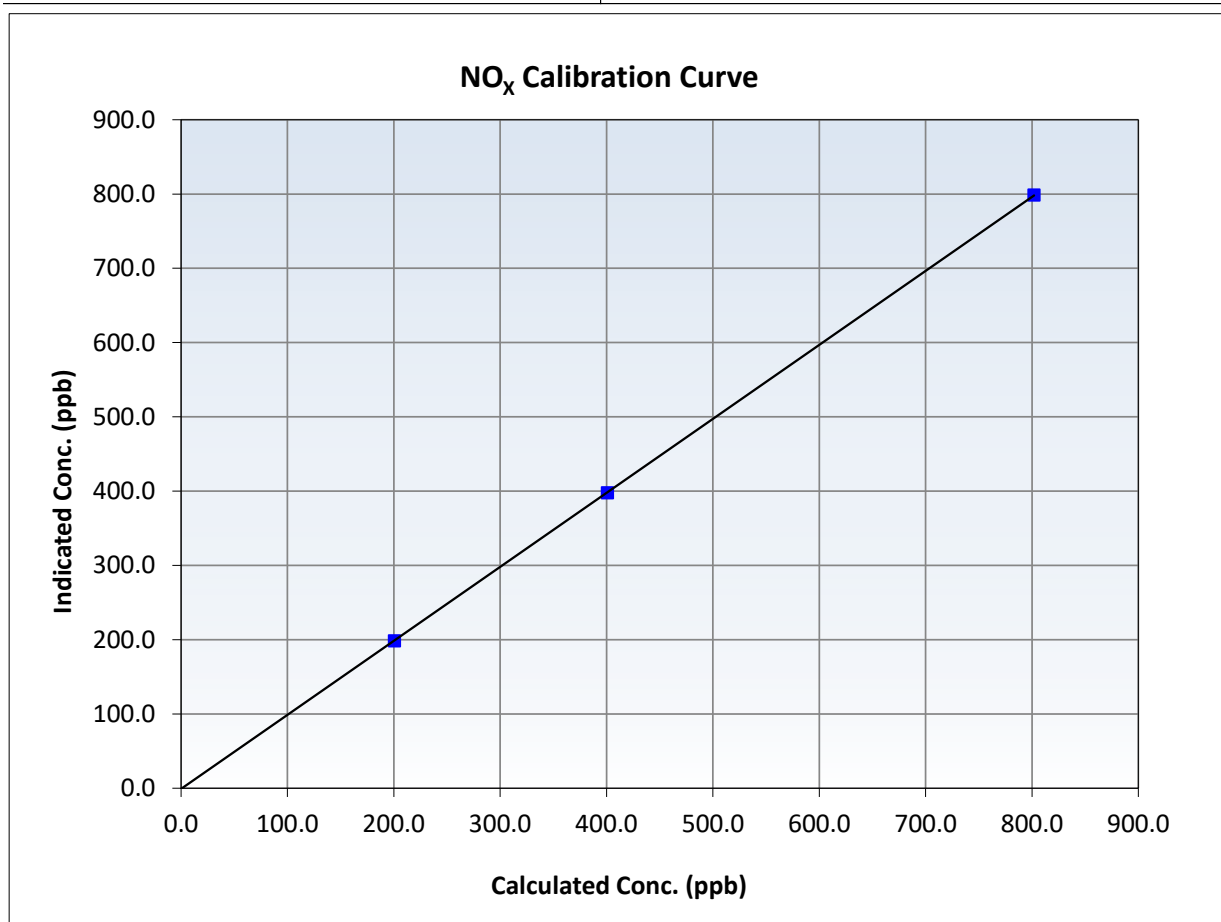
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 29, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:39	End Time (MST):	14:20
Analyzer make:	Thermo 42i	Analyzer serial #:	1229254994

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999995	≥0.995
802.0	798.6	1.0042	Slope	0.996219	0.90 - 1.10
400.9	397.7	1.0080	Intercept	-0.856112	+/-20
200.5	198.4	1.0104			





# Wood Buffalo Environmental Association

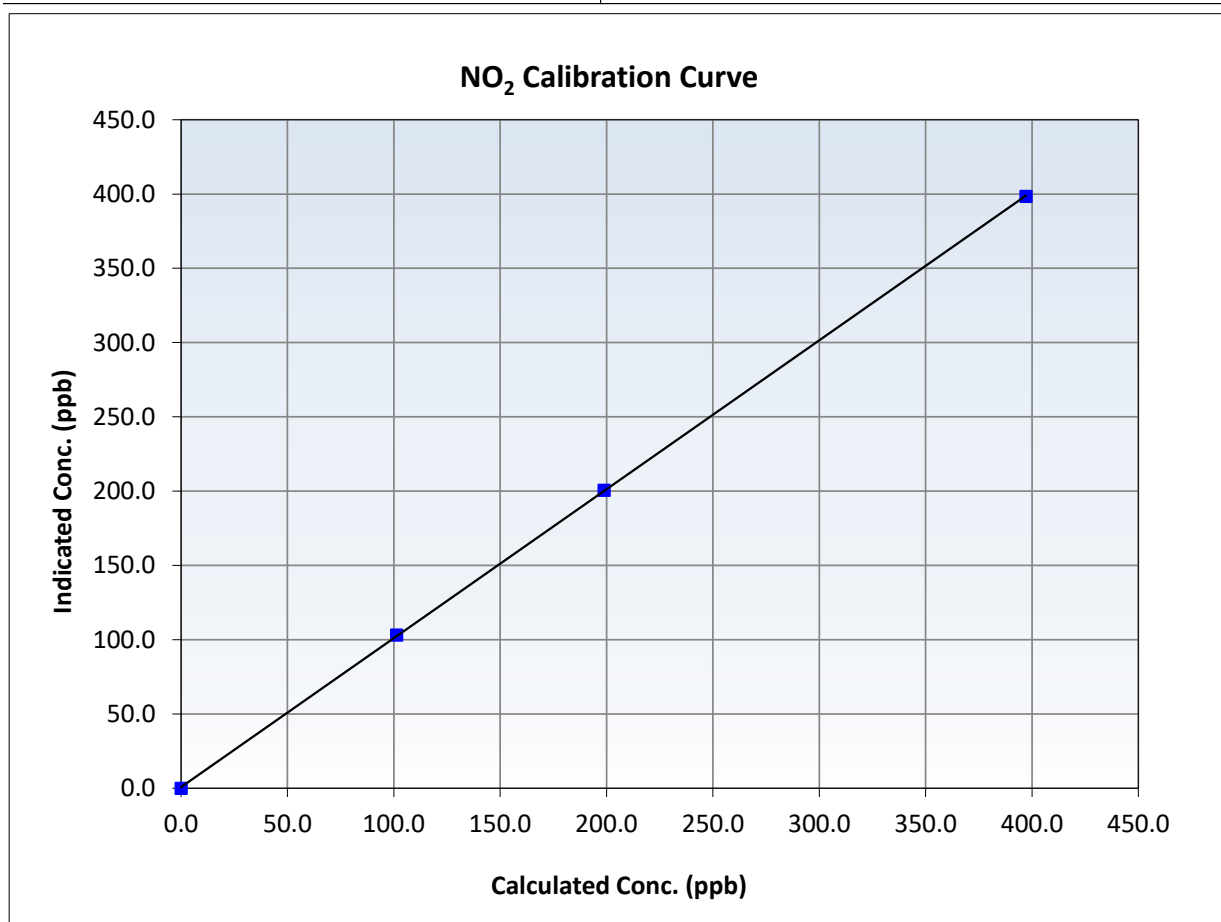
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 29, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:39	End Time (MST):	14:20
Analyzer make:	Thermo 42i	Analyzer serial #:	1229254994

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999983	≥0.995
397.1	398.5	0.9966	Slope	1.002504	0.90 - 1.10
198.8	200.5	0.9917	Intercept	0.758492	+/-20
101.3	103.1	0.9829			





# Wood Buffalo Environmental Association

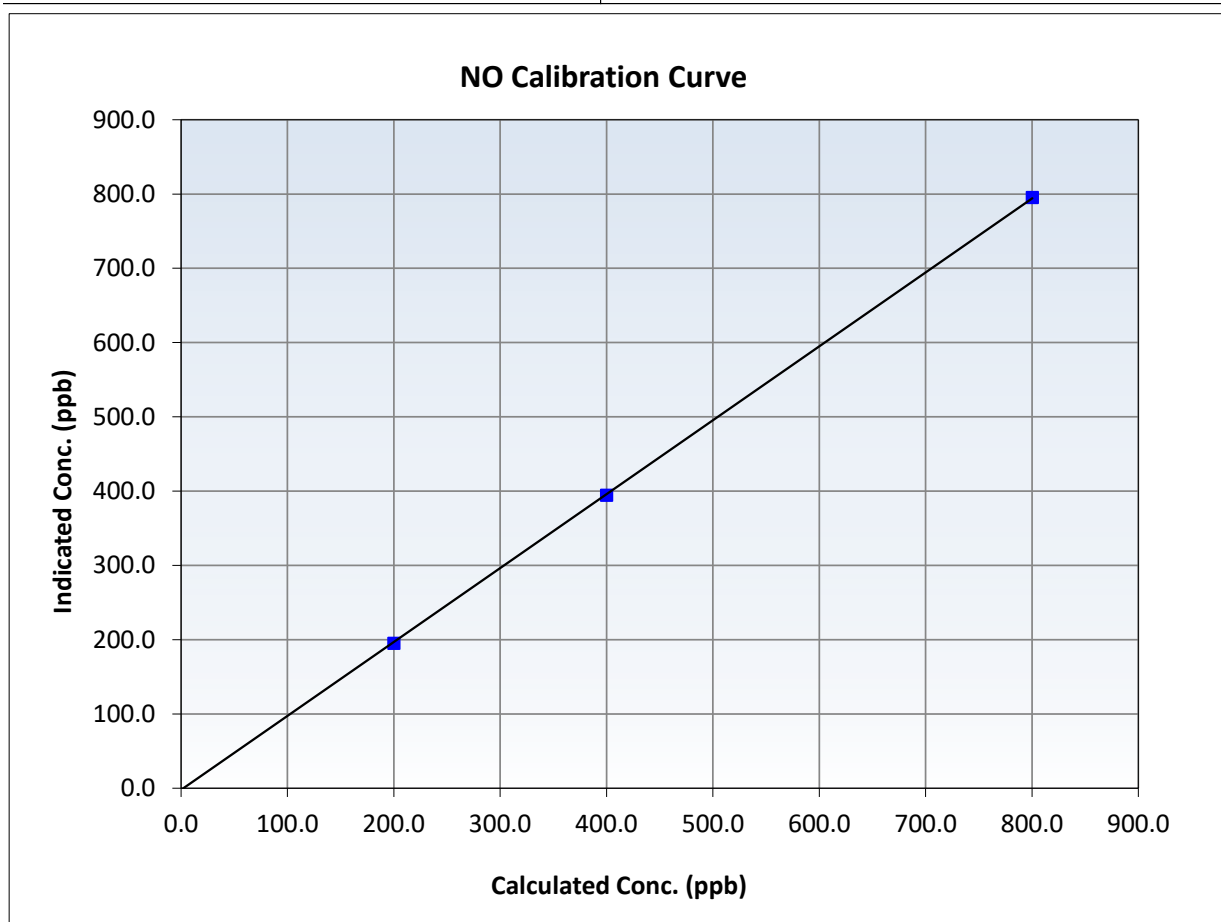
## NO Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 29, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:39	End Time (MST):	14:20
Analyzer make:	Thermo 42i	Analyzer serial #:	1229254994

### Calibration Data

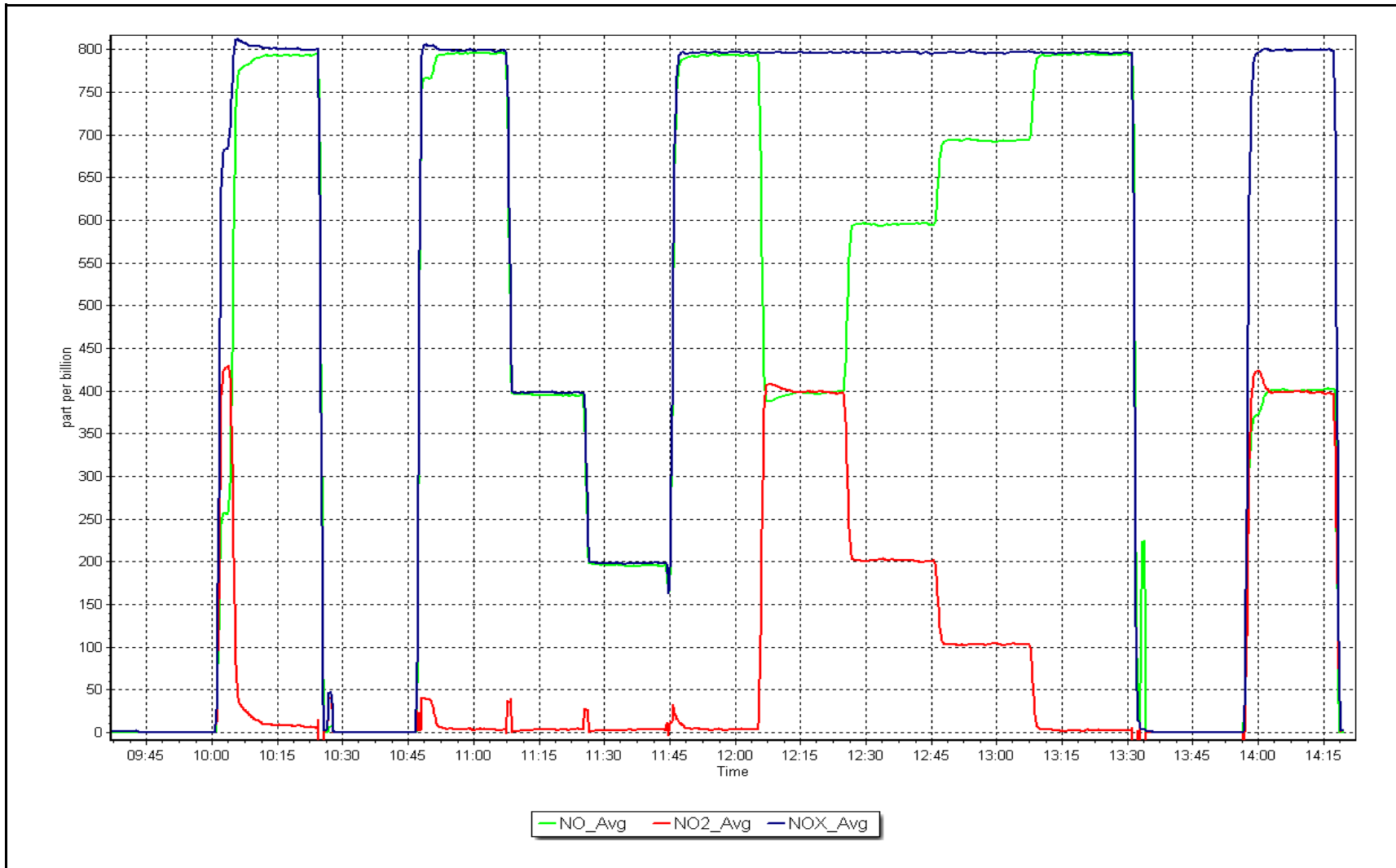
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999969	<span style="color: red;">≥0.995</span>
800.3	795.4	1.0062	Slope	0.995062	<span style="color: red;">0.90 - 1.10</span>
400.1	394.5	1.0141	Intercept	-2.136265	<span style="color: red;">+/-20</span>
200.1	195.2	1.0249			



NO<sub>x</sub> Calibration Plot

Date: May 13, 2026

Location: Janvier





# Wood Buffalo Environmental Association

## O<sub>3</sub> Calibration Report

### Station Information

Station Name:	Janvier	Station number:	AMS 22
Calibration Date:	May 1, 2026	Last Cal Date:	April 1, 2026
Start time (MST):	9:40	End time (MST):	12:44
Reason:	Routine		

### Calibration Standards

O3 generation mode:	Photometer	Serial Number:	281
Calibrator Make/Model:	Teledyne API T750	Serial Number:	530
ZAG Make/Model:	Teledyne API T751H		

### Analyzer Information

Analyzer make:	Thermo 49i	Analyzer serial #:	1227254861
Analyzer Range	0 - 500 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001371	1.003171	Backgd or Offset:	-0.2	-0.2
Calibration intercept:	0.960000	0.220000	Coeff or Slope:	1.506	1.364

### O<sub>3</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic- AFzero) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	5000	1063.6	400.0	384.1	1.041
As found Mid point					
As found Low point					
Baseline Corr As found:	384.1	Previous response	401.5	*% change	-4.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### O<sub>3</sub> Calibration Data

Set Point	Total air flow rate (sccm)	Calibrator Lamp Voltage Drive (mV)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	5000	1063.6	400.0	401.4	0.997
Mid point	5000	814.2	200.0	201.1	0.995
Low point	5000	688.9	100.0	100.4	0.996
As left zero	5000	0.0	0.0	0.2	----
As left span	5000	924.3	400.0	407.6	0.981
Average Correction Factor					0.996

Notes: Sample inlet filter was changed after as founds. Adjusted span.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

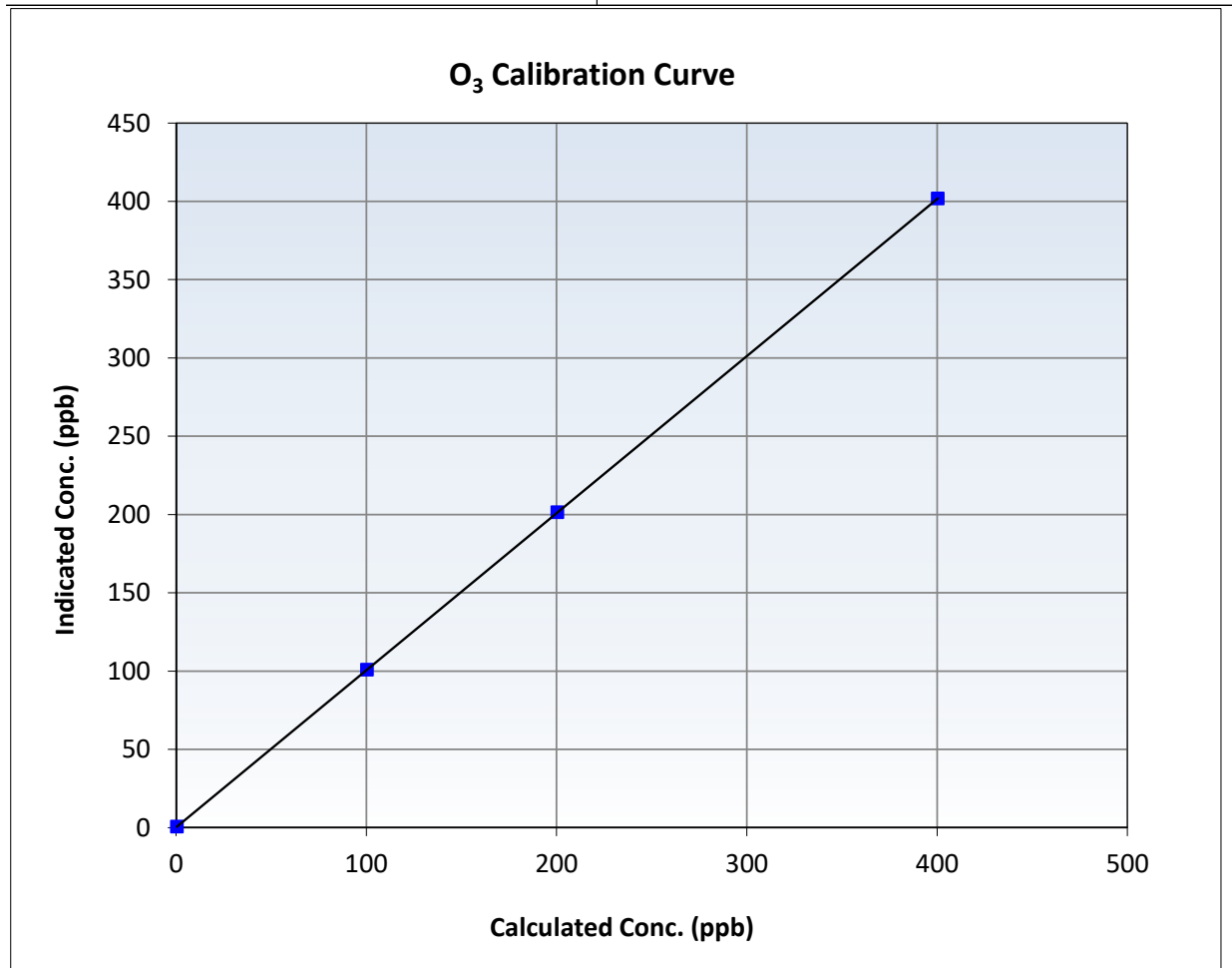
## O<sub>3</sub> Calibration Summary

### Station Information

Calibration Date:	May 1, 2026	Previous Calibration:	April 1, 2026
Station Name:	Janvier	Station Number:	AMS 22
Start Time (MST):	9:40	End Time (MST):	12:44
Analyzer make:	Thermo 49i	Analyzer serial #:	1227254861

### Calibration Data

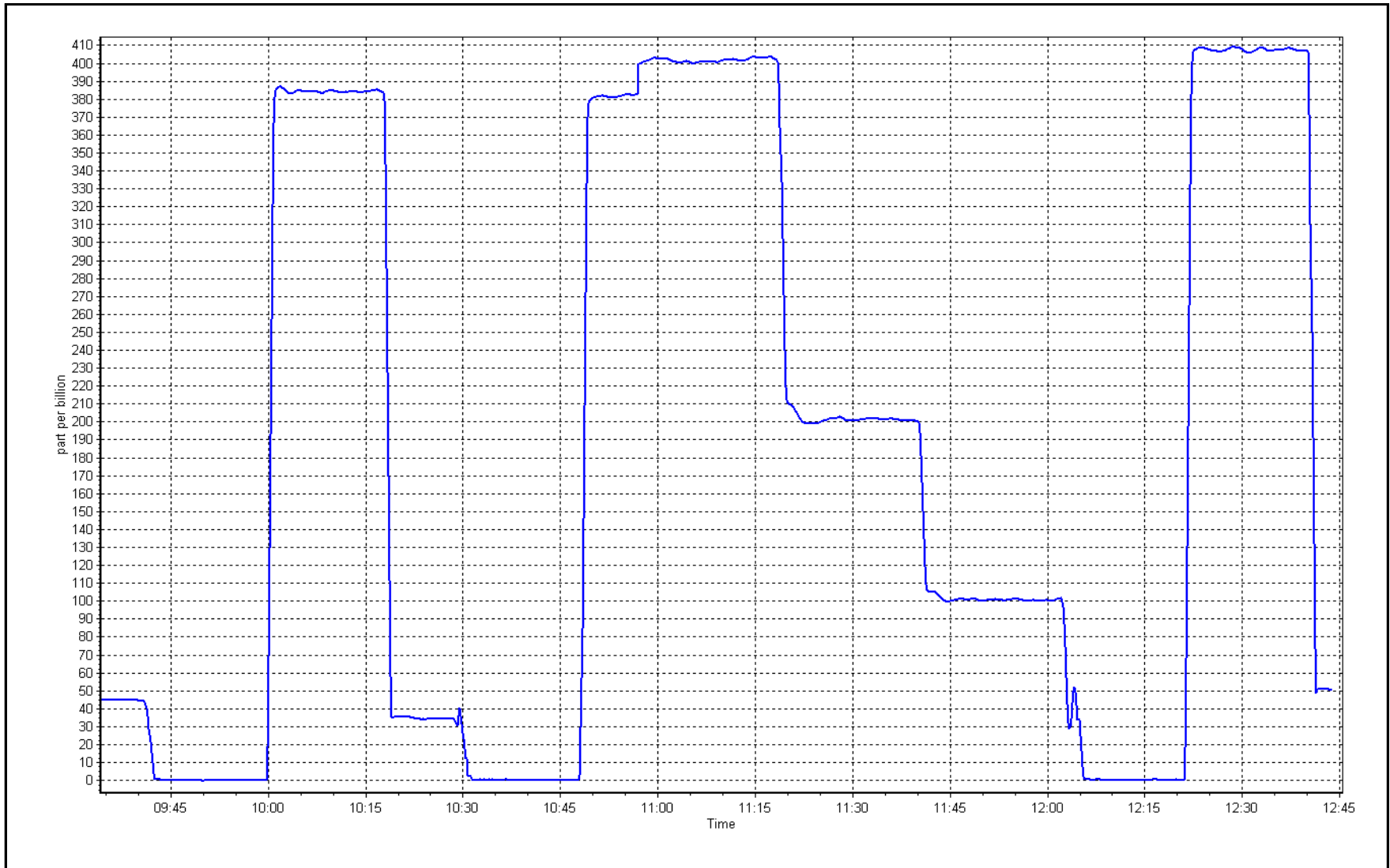
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999999	<span style="color: red;">≥0.995</span>
400.0	401.4	0.9965	Slope	1.003171	<span style="color: red;">0.90 - 1.10</span>
200.0	201.1	0.9945	Intercept	0.220000	<span style="color: red;">+/- 5</span>
100.0	100.4	0.9960			



O<sub>3</sub> Calibration Plot

Date: May 1, 2026

Location: Janvier





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Janvier Station number: AMS 22  
 Calibration Date: May 14, 2026 Last Cal Date: April 29, 2026  
 Start time (MST): 10:31 End time (MST): 10:45

Analyzer Make: Teledyne API T640 S/N: 325  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745  
 Temp/RH standard: Alicat FP-25BT S/N: 388745

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	9.40	9.46		<input type="checkbox"/>	+/- 2 °C
P (mmHg)	700.7	701.1		<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	4.97	5.01		<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	36	----		<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	2.40	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: **10.9** Expiry Date: October 6, 2024  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	11.1	NA	NA	<input type="checkbox"/>	10.9 +/- 0.5

Date Optical Chamber Cleaned: February 24, 2026  
 Date Disposable Filter Changed: February 24, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ NA <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: February 24, 2026  
 Date RH/T Sensor Cleaned: February 24, 2026

Notes: Removal Cal- Verified the flow, temperature, and pressure. Leak check passed. 'As found' done for PMT peak test and is within the required limits.

Calibration by: Param Kaur



# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Janvier Station number: AMS 22  
 Calibration Date: May 14, 2026 Last Cal Date:  
 Start time (MST): 10:47 End time (MST): 11:20

Analyzer Make: Teledyne API T640 S/N: 871  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745  
 Temp/RH standard: Alicat FP-25BT S/N: 388745

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	NA	8.50	8.70	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	NA	701.3	699.6	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	NA	5.06	5.03	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	NA	----	36	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	1.40	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: **10.9** Expiry Date: October 6, 2024  
 Lot No.: 100128-050-042

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	NA	10.8	10.8	<input type="checkbox"/>	10.9 +/- 0.5

Date Optical Chamber Cleaned: May 14, 2026  
 Date Disposable Filter Changed: May 14, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: February 24, 2026  
 Date RH/T Sensor Cleaned: February 24, 2026

Notes: Install Cal- Verified the flow, temperature, pressure and pump PWM. Leak check passed & no adjustments made. PMT test was completed and no adjustments made. Leak check passed.

Calibration by: Param Kaur



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS23 FORT HILLS MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Fort Hills	Station number:	AMS 23
Calibration Date:	May 5, 2026	Last Cal Date:	April 22, 2026
Start time (MST):	11:47	End time (MST):	15:04
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.35	ppm	Cal Gas Exp Date: October 9, 2032
Cal Gas Cylinder #:	CC484463		
Removed Cal Gas Conc:	50.35	ppm	Rem Gas Exp Date:
Removed Gas Cyl #:			Diff between cyl:
Calibrator Model:	API T700		Serial Number: 5762
Zero Air Gen Model:	API T701		Serial Number: 1117

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1160290012
Analyzer Range:	0-1000ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.008007	1.013710	Backgd or Offset:	19.4	19.2
Calibration intercept:	-0.797739	-0.216930	Coeff or Slope:	1.070	1.070

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4921	79.4	799.5	809.9	0.987
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	809.8	Previous response	805.1	*% change	0.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4921	79.4	799.5	810.5	0.986
Mid point	4960	39.7	399.8	404.6	0.988
Low point	4980	19.8	199.4	201.8	0.988
As left zero	5000	0.0	0.0	0.2	----
As left span	4921	79.4	799.5	813.2	0.983
Average Correction Factor:					0.988

Notes: Inlet filter changed after as founds. No adjustments done.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

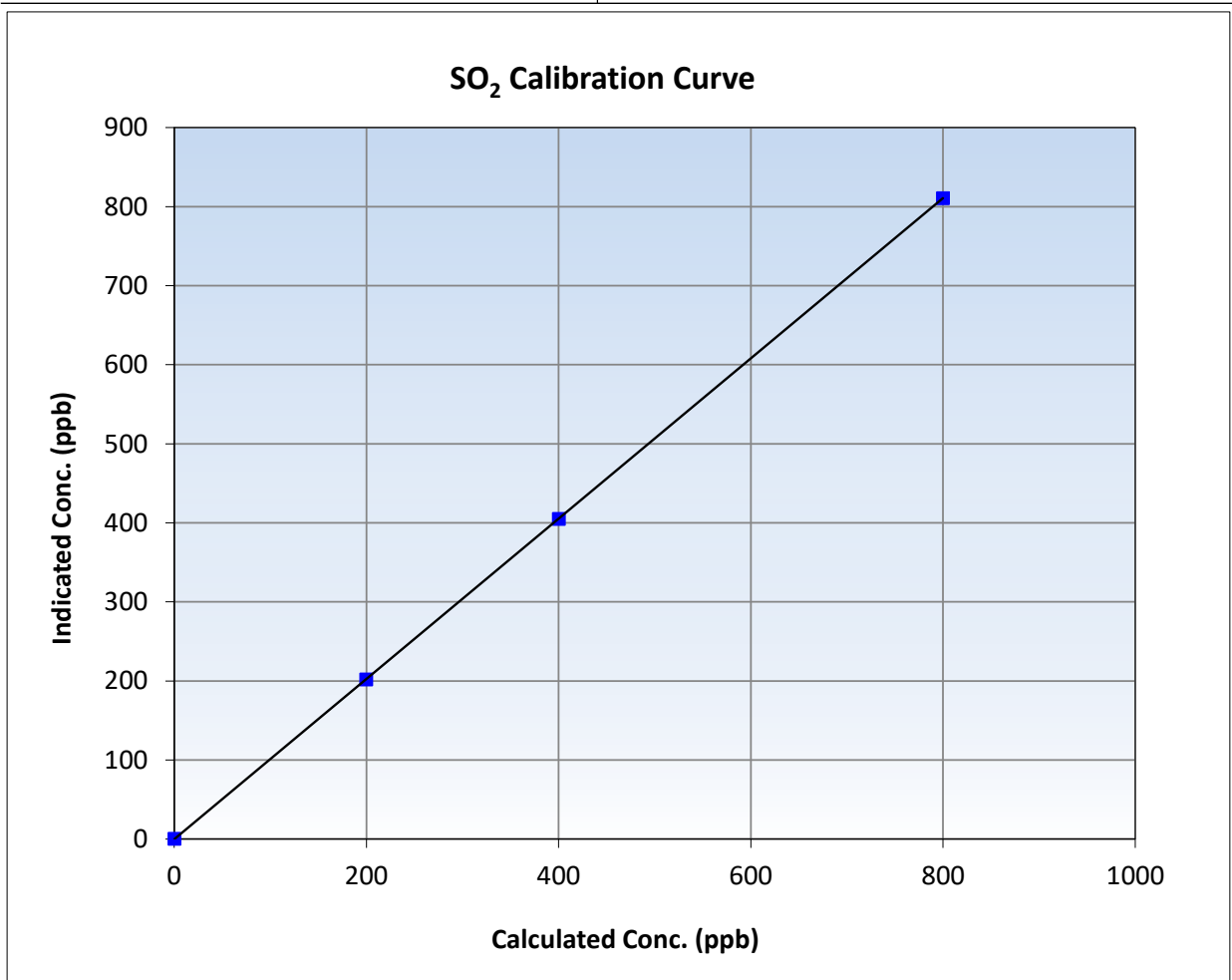
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 22, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	11:47	End Time (MST):	15:04
Analyzer make:	Thermo 43i	Analyzer serial #:	1160290012

### Calibration Data

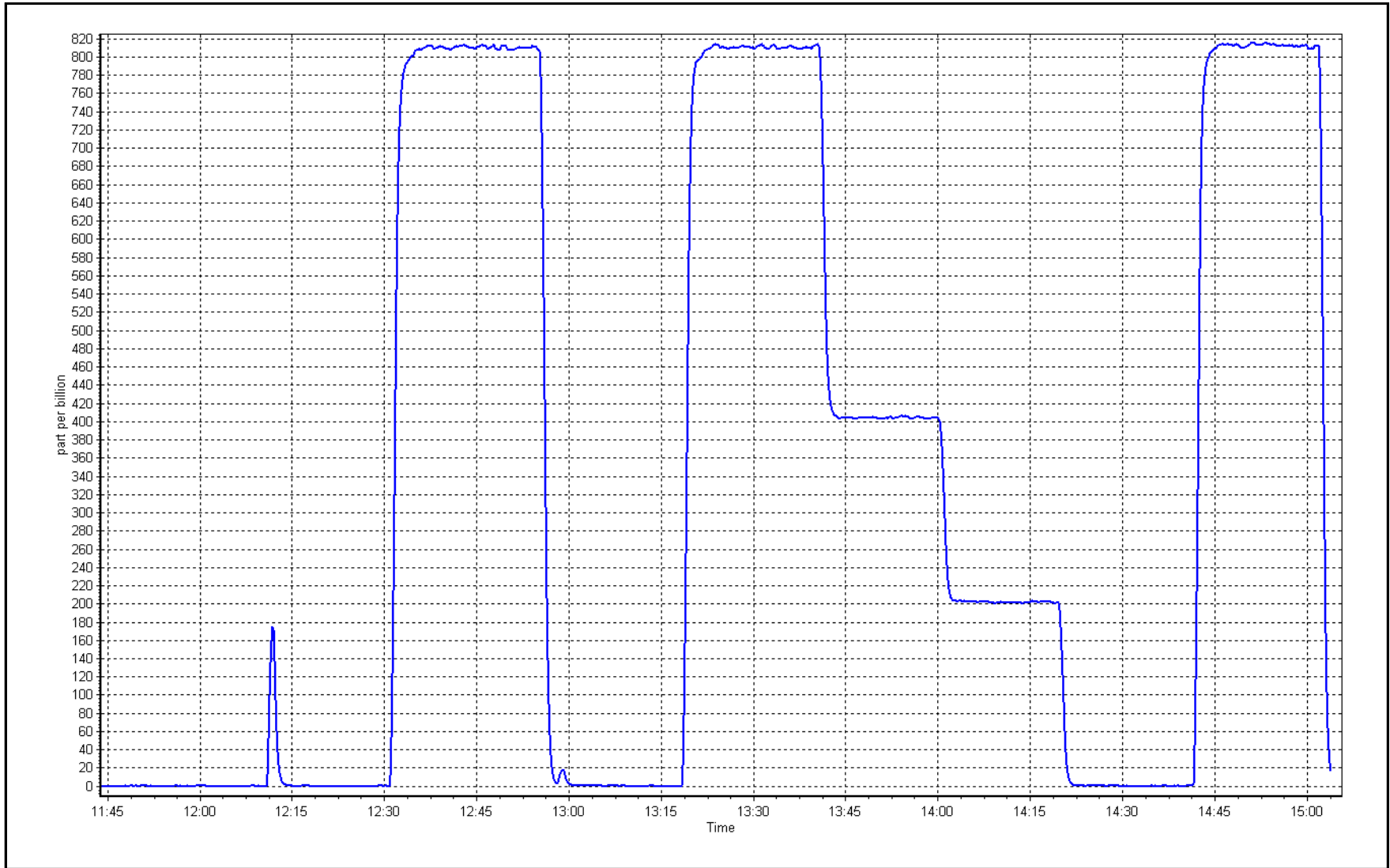
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999999	<b>≥0.995</b>
799.5	810.5	0.9864	Slope	1.013710	<b>0.90 - 1.10</b>
399.8	404.6	0.9881	Intercept	-0.216930	<b>+/-30</b>
199.4	201.8	0.9881			



SO2 Calibration Plot

Date: May 5, 2026

Location: Fort Hills





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Fort Hills	Station number:	AMS 23
Calibration Date:	May 7, 2026	Last Cal Date:	April 28, 2026
Start time (MST):	10:14	End time (MST):	14:32
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.84 ppm	Cal Gas Exp Date:	August 28, 2027
Cal Gas Cylinder #:	DT0021910		
Removed Cal Gas Conc:	4.84 ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA	Diff between cyl:	
Calibrator Make/Model:	API T700	Serial Number:	5762
ZAG Make/Model:	API T701	Serial Number:	1117

### Analyzer Information

Analyzer make:	Thermo 43iQ Trace level	Analyzer serial #:	1200326168
Converter make:	Global	Converter serial #:	2022-227
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
Calibration slope:	1.000674	1.004679	Backgd or Offset:	0.98
Calibration intercept:	-0.018088	0.141767	Coeff or Slope:	1.045

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.1	----
As found High point	4917	82.6	80.0	80.7	0.992
As found Mid point	4959	41.3	40.0	40.2	0.997
As found Low point	4979	20.7	20.0	20.3	0.992
New cylinder response					
Baseline Corr As found:	80.6	Prev response:	80.00	*% change:	0.7%
Baseline Corr 2nd AF pt:	40.1	AF Slope:	1.007680	AF Intercept:	0.061749
Baseline Corr 3rd AF pt:	20.2	AF Correlation:	0.999992	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4917	82.6	80.0	80.5	0.993
Mid point	4959	41.3	40.0	40.2	0.994
Low point	4979	20.7	20.0	20.4	0.982
As left zero	5000	0.0	0.0	0.1	----
As left span	4917	82.6	80.0	80.8	0.990
SO <sub>2</sub> Scrubber Check	4920	80.3	803.0	0.1	----
Date of last scrubber change:	April 28, 2026		Ave Corr Factor		0.990
Date of last converter efficiency test:					

Notes: Changed sample inlet filter after as founds. SO<sub>x</sub> scrubber checked after the calibrator zero. No adjustments made.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

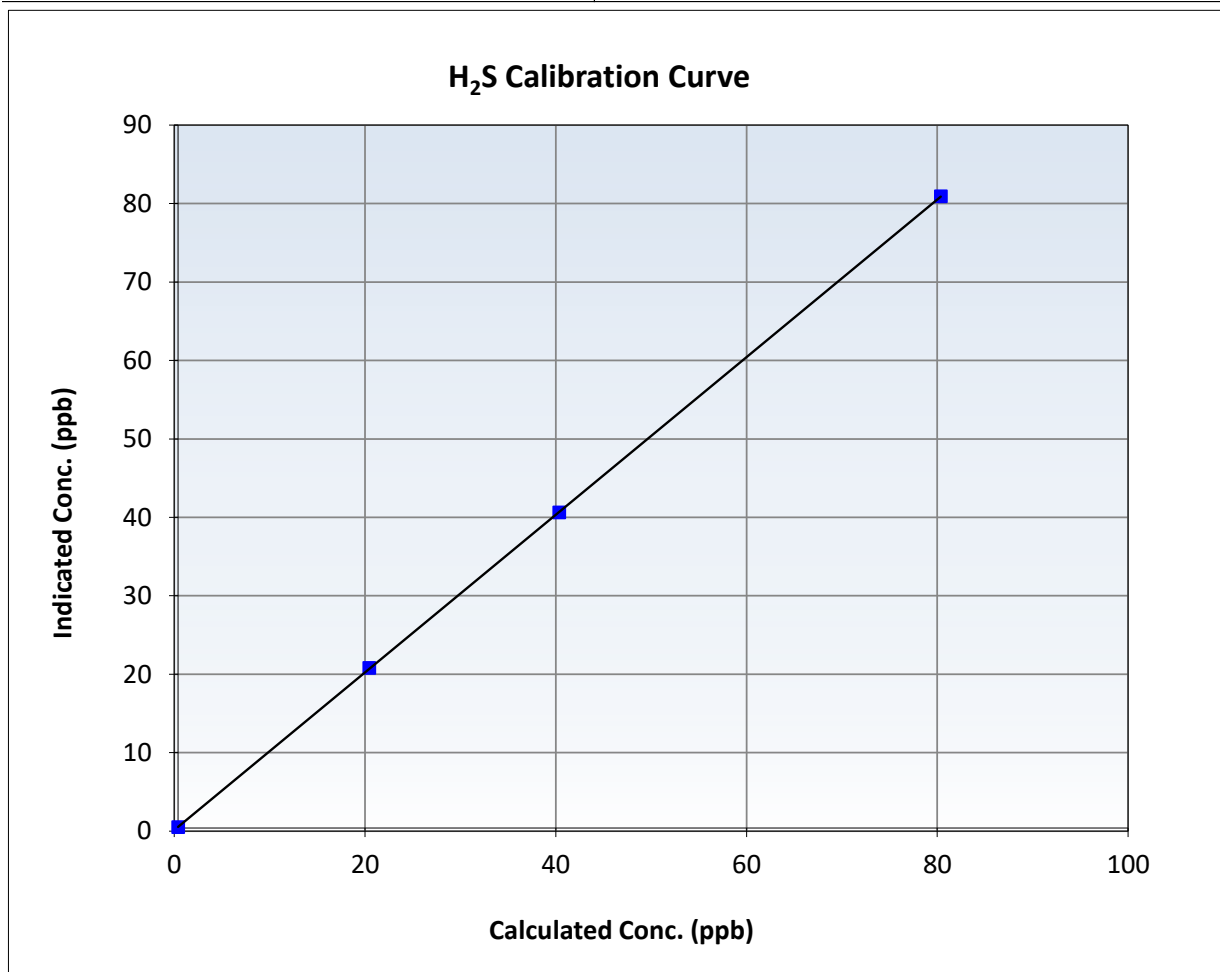
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 28, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:14	End Time (MST):	14:32
Analyzer make:	Thermo 43iQ Trace level	Analyzer serial #:	1200326168

### Calibration Data

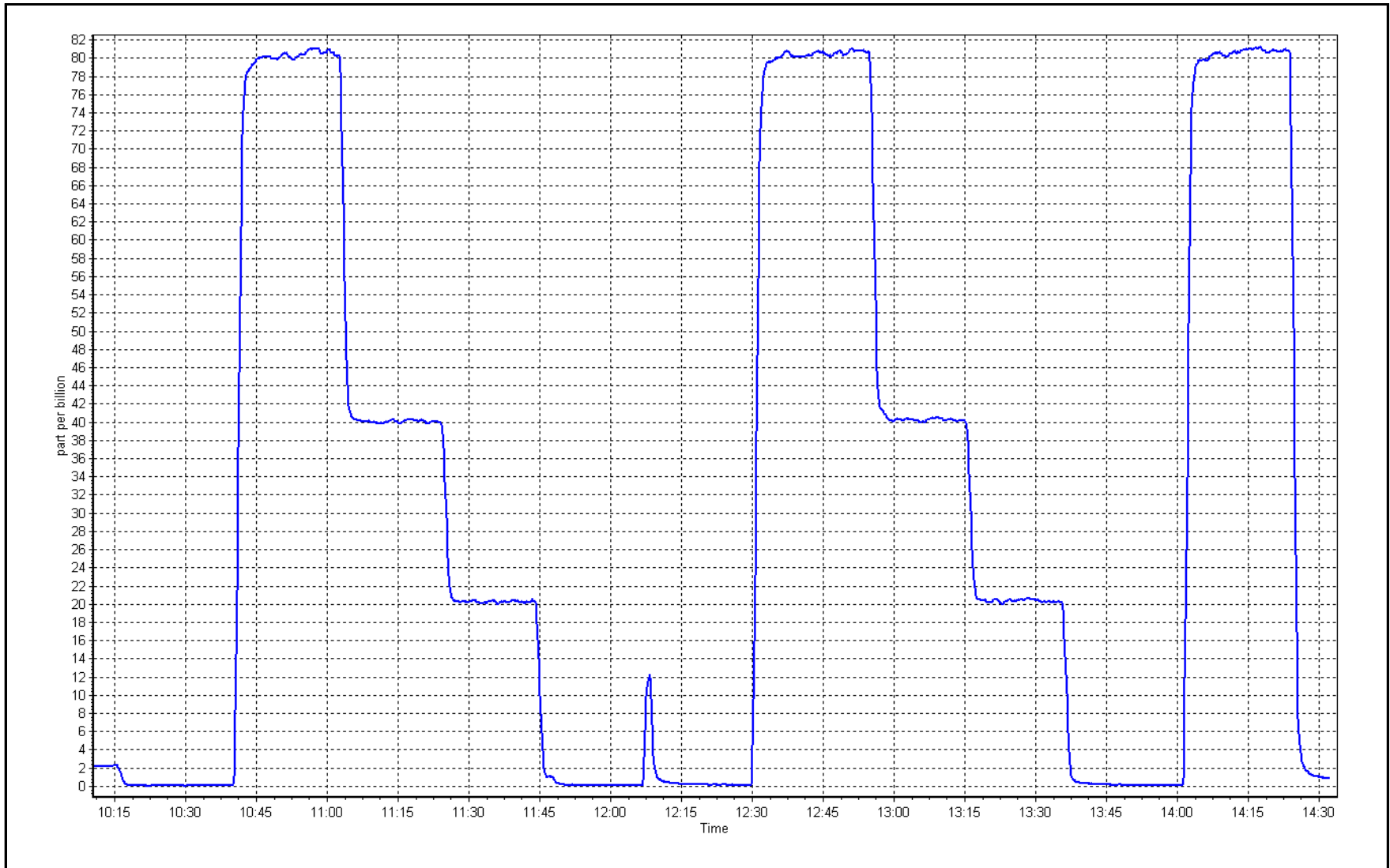
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999992	≥0.995
80.0	80.5	0.9933	Slope	1.004679	0.90 - 1.10
40.0	40.2	0.9944	Intercept	0.141767	+/-3
20.0	20.4	0.9823			



H<sub>2</sub>S Calibration Plot

Date: May 7, 2026

Location: Fort Hills





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name:	Fort Hills	Station number:	AMS 23
Calibration Date:	May 7, 2026	Last Cal Date:	April 28, 2026
Start time (MST):	10:14	End time (MST):	14:32
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.84	ppm	Cal Gas Exp Date:	August 28, 2027
Cal Gas Cylinder #:	DT0021910			
Removed Cal Gas Conc:	4.84	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Make/Model:	API T700		Serial Number:	5762
ZAG Make/Model:	API T701		Serial Number:	1117

### Analyzer Information

Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1300156232	
Converter make:	CDN-101	Converter serial #:	594	
Analyzer Range	0 - 100 ppb	Converter Temp:	800 degC	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003675	1.003963	Backgd or Offset:	1.90	1.92
Calibration intercept:	-0.098095	-0.058194	Coeff or Slope:	0.965	0.965

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4917	82.6	80.0	80.0	0.998
As found Mid point	4959	41.3	40.0	39.8	1.002
As found Low point	4979	20.7	20.0	19.9	1.002
New cylinder response					
Baseline Corr As found:	80.1	Prev response:	80.16	*% change:	-0.1%
Baseline Corr 2nd AF pt:	39.9	AF Slope:	1.001818	AF Intercept:	-0.158112
Baseline Corr 3rd AF pt:	20.0	AF Correlation:	0.999996	<i>* = &gt; +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4917	82.6	80.0	80.4	0.995
Mid point	4959	41.3	40.0	39.7	1.007
Low point	4979	20.7	20.0	20.1	0.997
As left zero	5000	0.0	0.0	0.0	----
As left span	4917	82.6	80.0	80.5	0.993
SO2 Scrubber Check	4920	80.3	803.0	0.0	----
Date of last scrubber change:				Ave Corr Factor	0.999
Date of last converter efficiency test:	March 13, 2024			110.3%	efficiency

Notes: Changed sample inlet filter after as founds. SOx scrubber checked after the calibrator zero. No adjustments made.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

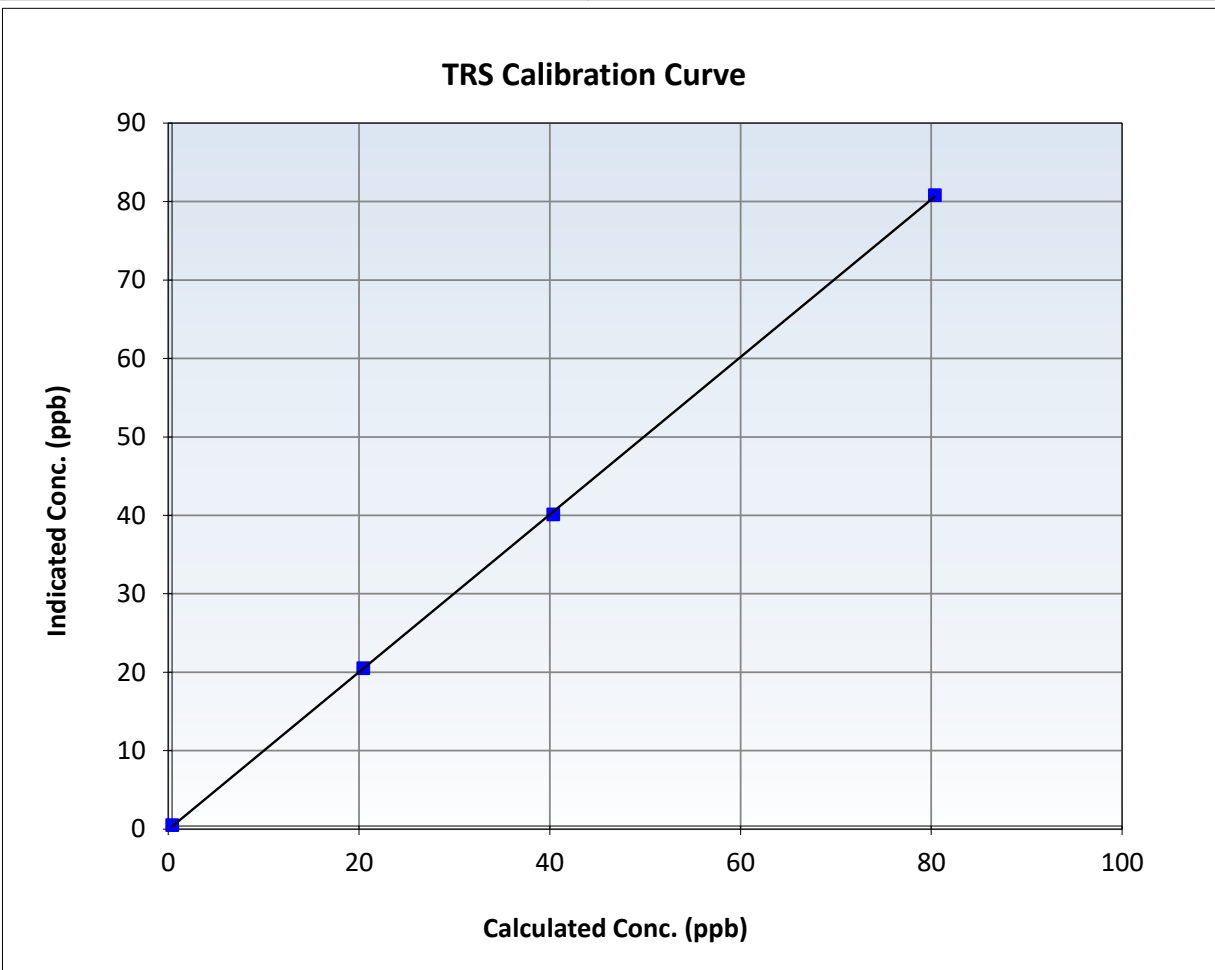
## TRS Calibration Summary

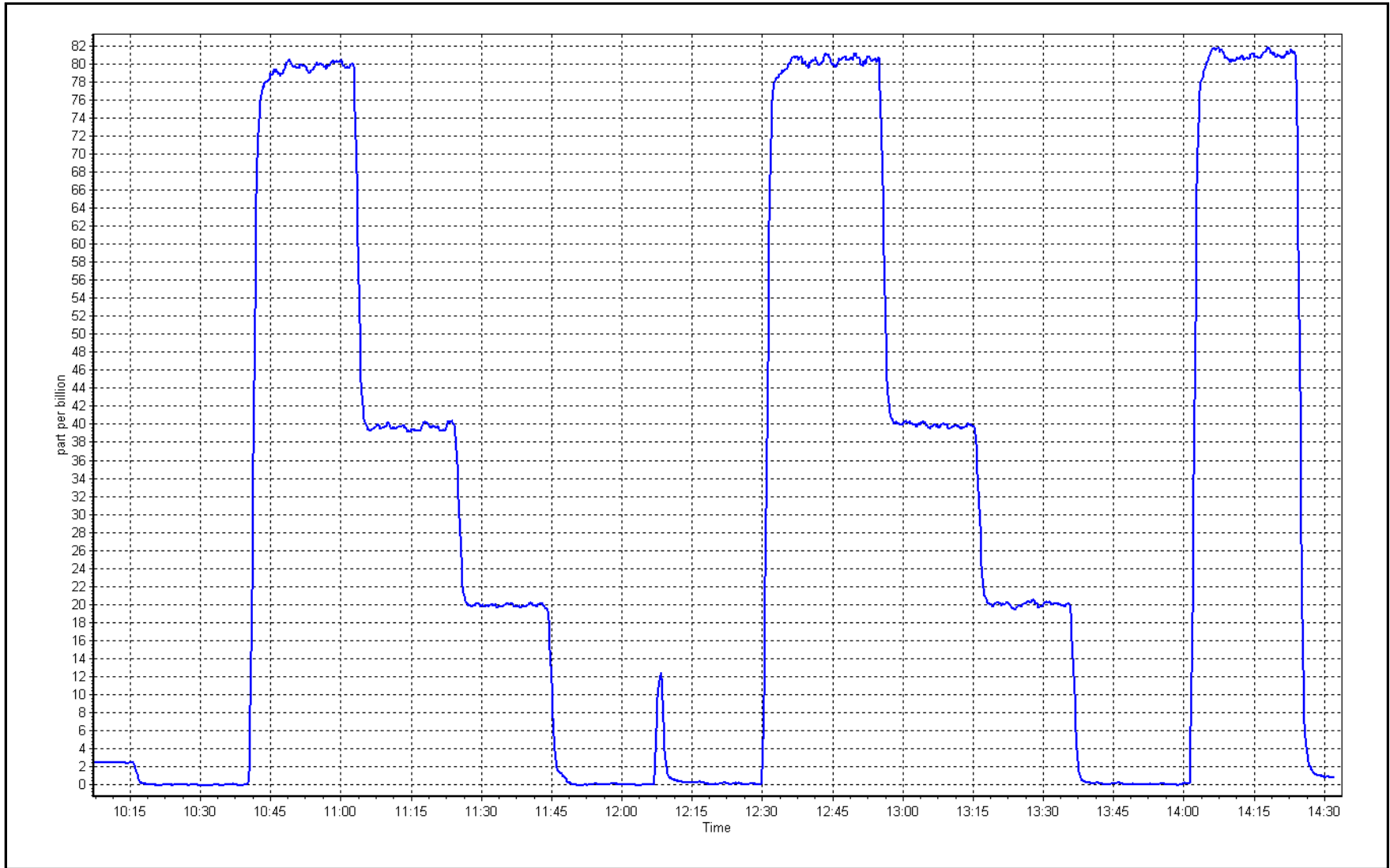
### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 28, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:14	End Time (MST):	14:32
Analyzer make:	Thermo 43i TLE	Analyzer serial #:	1300156232

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999943	$\geq 0.995$
80.0	80.4	0.9946	Slope	1.003963	$0.90 - 1.10$
40.0	39.7	1.0070	Intercept	-0.058194	$\pm 3$
20.0	20.1	0.9970			







# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Fort Hills	Station number:	AMS 23
Calibration Date:	May 5, 2026	Last Cal Date:	April 22, 2026
Start time (MST):	11:47	End time (MST):	15:04
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC484463	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	504.3 ppm	CH4 Equiv Conc.	1065.6 ppm
C3H8 Cal Gas Conc.	204.1 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	504.3 ppm	CH4 Equiv Conc.	1065.6 ppm
Removed C3H8 Conc.	204.1 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5762
Zero Air Gen model:	API T701	Serial Number:	1117

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 12227620777
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	3.76E-04	3.76E-04	NMHC SP Ratio:	5.87E-05	5.87E-05
CH4 Retention time:	15.4	15.4	NMHC Peak Area:	151795	151795
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	16.92	16.93	1.000
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.93	Prev response	16.80	*% change	0.8%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	16.92	16.83	1.006
Mid point	4960	39.7	8.46	8.24	1.027
Low point	4980	19.8	4.22	4.11	1.026
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	16.92	16.83	1.006
Average Correction Factor					1.019

Notes: Inlet filter was changed after as founds. No adjustments made.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	8.91	8.96	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.96	Prev response	8.84	*% change	1.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.91	8.91	1.001
Mid point	4960	39.7	4.46	4.38	1.018
Low point	4980	19.8	2.22	2.20	1.011
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	8.90	1.002
Average Correction Factor					1.010

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	8.01	7.96	1.006
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.96	Prev response	7.95	*% change	0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.01	7.92	1.011
Mid point	4960	39.7	4.00	3.86	1.037
Low point	4980	19.8	2.00	1.92	1.042
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.01	7.92	1.011
Average Correction Factor					1.030

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.997391	0.995000
THC Cal Offset:	-0.079190	-0.067998
CH <sub>4</sub> Cal Slope:	0.999361	0.990558
CH <sub>4</sub> Cal Offset:	-0.052797	-0.044213
NMHC Cal Slope:	0.995261	0.999235
NMHC Cal Offset:	-0.025993	-0.023985

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

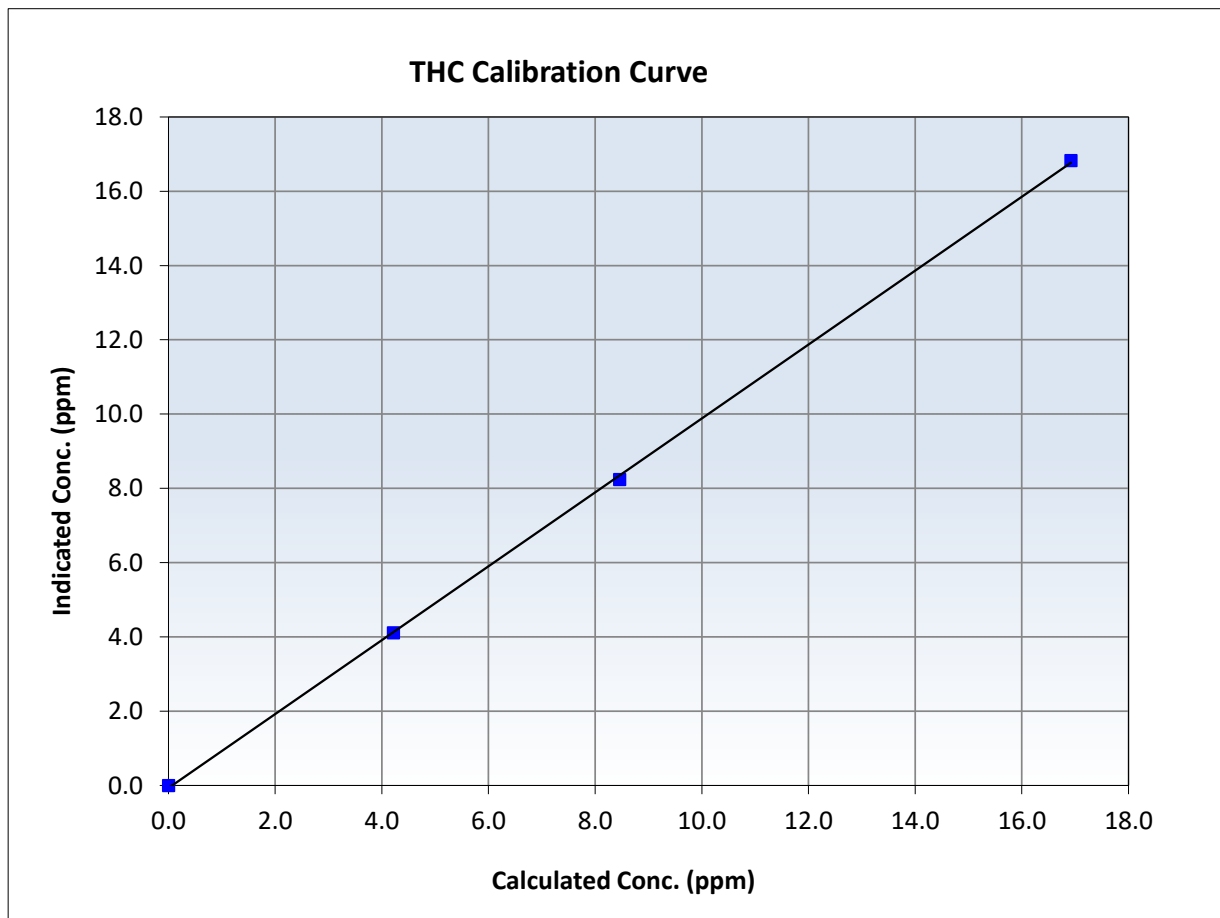
## THC Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 22, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	11:47	End Time (MST):	15:04
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999866	<i>&gt;0.995</i>
16.92	16.83	1.0055	Slope	0.995000	<i>0.90 - 1.10</i>
8.46	8.24	1.0268	Intercept	-0.067998	<i>+/-0.5</i>
4.22	4.11	1.0257			





# Wood Buffalo Environmental Association

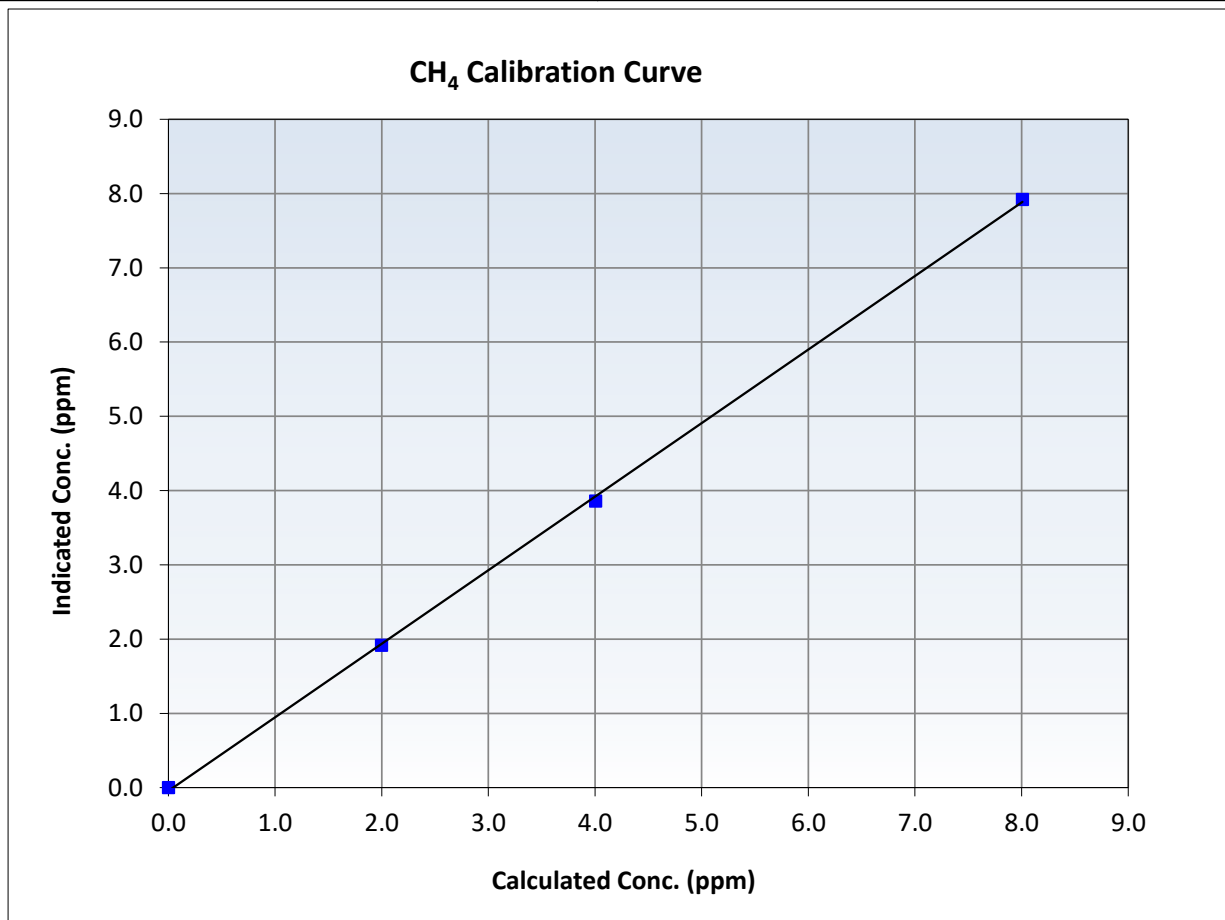
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 22, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	11:47	End Time (MST):	15:04
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999788 <span style="color: red;">≥0.995</span>
8.01	7.92	1.0107	Slope	0.990558 <span style="color: red;">0.90 - 1.10</span>
4.00	3.86	1.0371	Intercept	-0.044213 <span style="color: red;">+/-0.5</span>
2.00	1.92	1.0423		





# Wood Buffalo Environmental Association

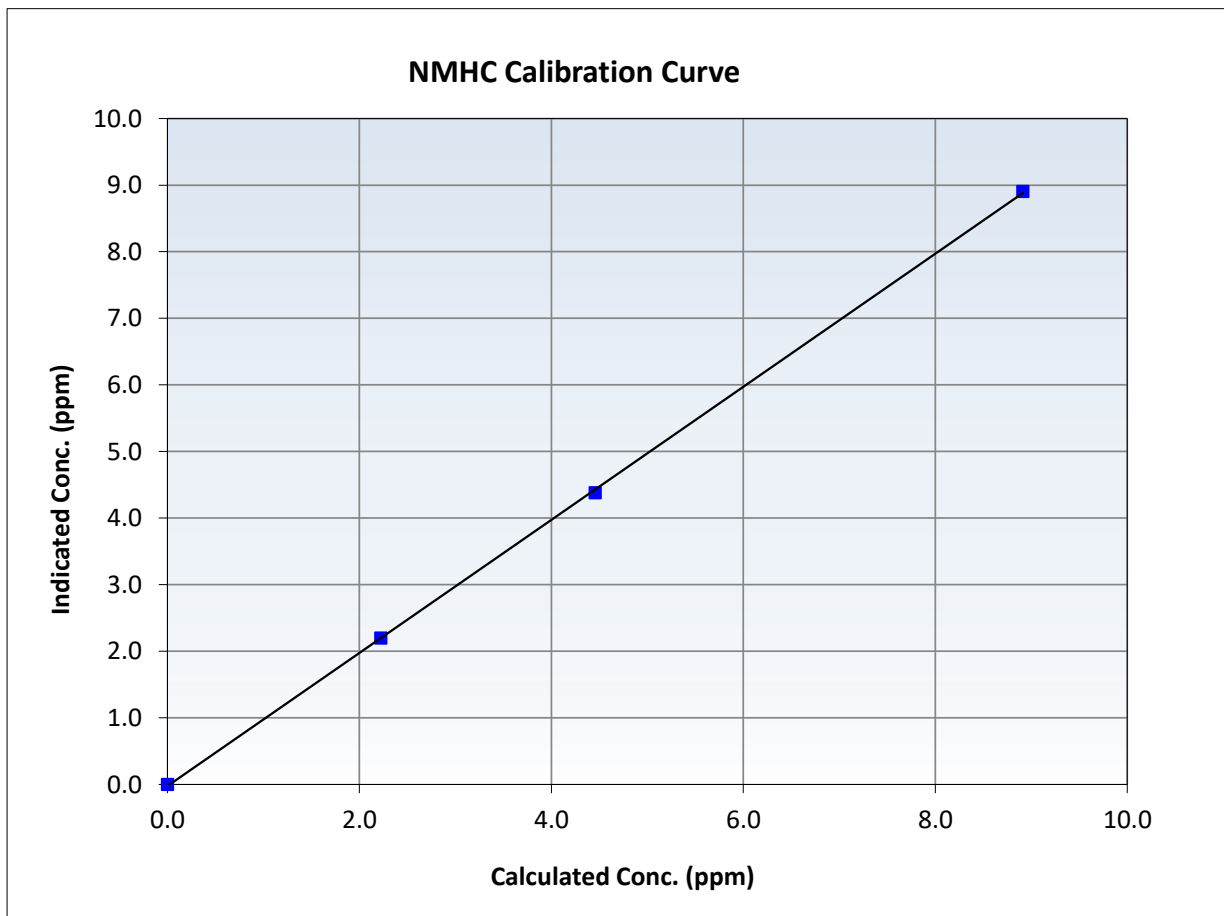
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 5, 2026	Previous Calibration:	April 22, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	11:47	End Time (MST):	15:04
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

### Calibration Data

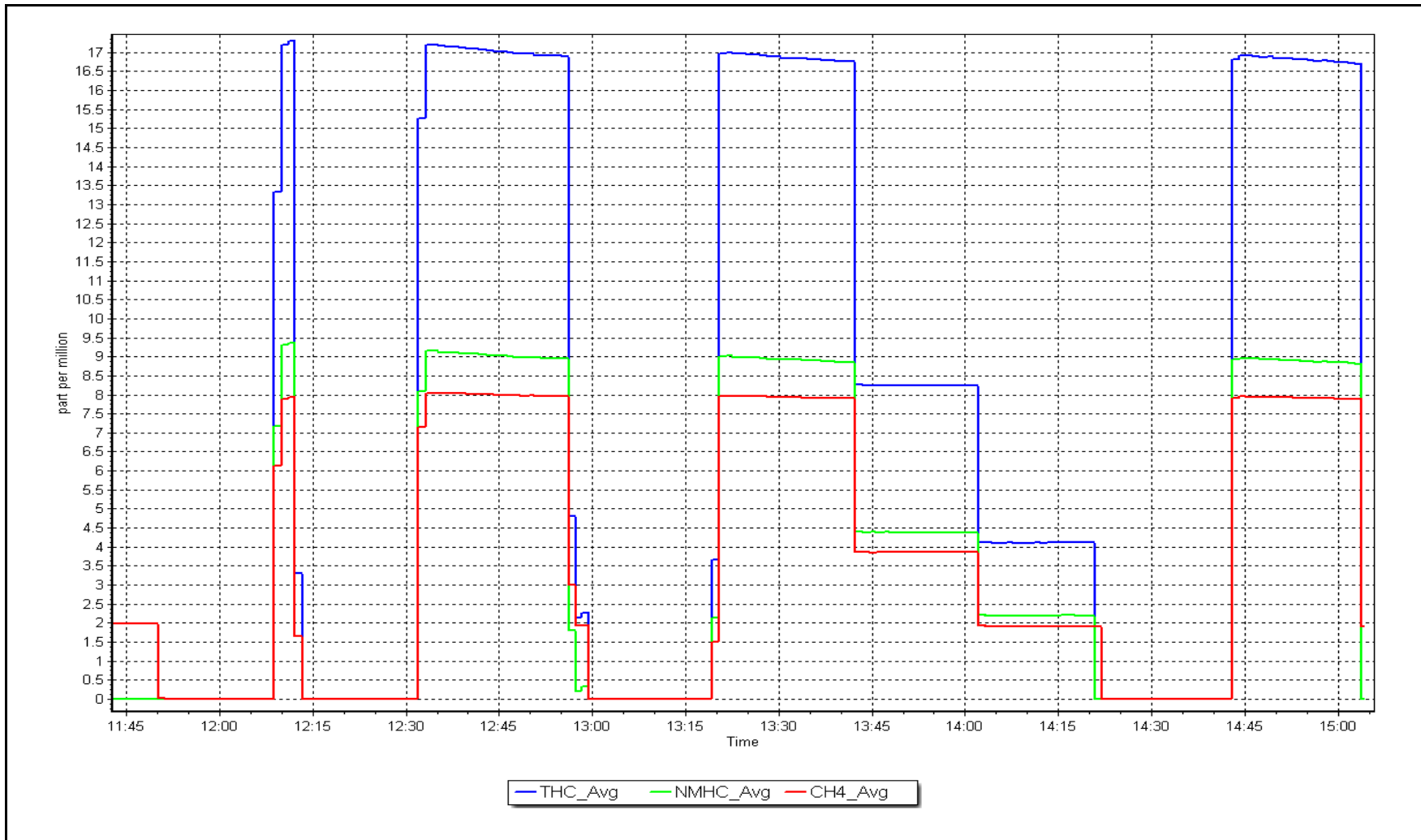
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999917	<i>≥0.995</i>
8.91	8.91	1.0007	Slope	0.999235	<i>0.90 - 1.10</i>
4.46	4.38	1.0175	Intercept	-0.023985	<i>+/-0.5</i>
2.22	2.20	1.0113			



NMHC Calibration Plot

Date: May 5, 2026

Location: Fort Hills





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Fort Hills	Station number:	AMS 23
Calibration Date:	May 14, 2026	Last Cal Date:	May 5, 2026
Start time (MST):	10:57	End time (MST):	14:46
Reason:	Maintenance		

### Calibration Standards

Gas Cert Reference:	CC484463	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	504.3 ppm	CH4 Equiv Conc.	1065.6 ppm
C3H8 Cal Gas Conc.	204.1 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	504.3 ppm	CH4 Equiv Conc.	1065.6 ppm
Removed C3H8 Conc.	204.1 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5762
Zero Air Gen model:	API T701	Serial Number:	1117

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 12227620777
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	3.76E-04	3.85E-04	NMHC SP Ratio:	5.87E-05	5.86E-05
CH4 Retention time:	15.4	15.9	NMHC Peak Area:	151795	152158
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	16.92	16.93	1.000
As found Mid point	4960	39.7	8.46	8.30	1.020
As found Low point	4980	19.8	4.22	4.12	1.024
New cylinder response					
Baseline Corr AF:	16.93	Prev response	16.77	*% change	0.9%
Baseline Corr 2nd AF:	8.30	AF Slope:	1.001234	AF Intercept:	-0.073381
Baseline Corr 3rd AF:	4.12	AF Correlation:	0.999872	* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	16.92	16.88	1.003
Mid point	4960	39.7	8.46	8.27	1.023
Low point	4980	19.8	4.22	4.13	1.021
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	16.92	16.88	1.002
Average Correction Factor					1.016

Notes: The CH<sub>4</sub> window start time was adjusted from 8.0 to 9.9, followed by zero and span adjustments.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	8.91	9.05	0.985
As found Mid point	4960	39.7	4.46	4.45	1.001
As found Low point	4980	19.8	2.22	2.22	1.002
New cylinder response					
Baseline Corr AF:	9.05	Prev response	8.88	*% change	1.9%
Baseline Corr 2nd AF:	4.45	AF Slope:	1.015993	AF Intercept:	-0.029557
Baseline Corr 3rd AF:	2.22	AF Correlation:	0.999921	* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.91	8.88	1.003
Mid point	4960	39.7	4.46	4.38	1.018
Low point	4980	19.8	2.22	2.20	1.010
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.91	8.89	1.003
Average Correction Factor					1.011

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4921	79.4	8.01	7.87	1.017
As found Mid point	4960	39.7	4.00	3.84	1.042
As found Low point	4980	19.8	2.00	1.90	1.049
New cylinder response					
Baseline Corr AF:	7.87	Prev response	7.89	*% change	-0.2%
Baseline Corr 2nd AF:	3.84	AF Slope:	0.984508	AF Intercept:	-0.043025
Baseline Corr 3rd AF:	1.90	AF Correlation:	0.999805	* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4921	79.4	8.01	7.99	1.002
Mid point	4960	39.7	4.00	3.89	1.029
Low point	4980	19.8	2.00	1.93	1.034
As left zero	5000	0.0	0.00	0.00	----
As left span	4921	79.4	8.01	7.99	1.003
Average Correction Factor					1.022

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.995000	0.997836
THC Cal Offset:	-0.067998	-0.064986
CH <sub>4</sub> Cal Slope:	0.990558	0.999290
CH <sub>4</sub> Cal Offset:	-0.044213	-0.045797
NMHC Cal Slope:	0.999235	0.996312
NMHC Cal Offset:	-0.023985	-0.018589

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

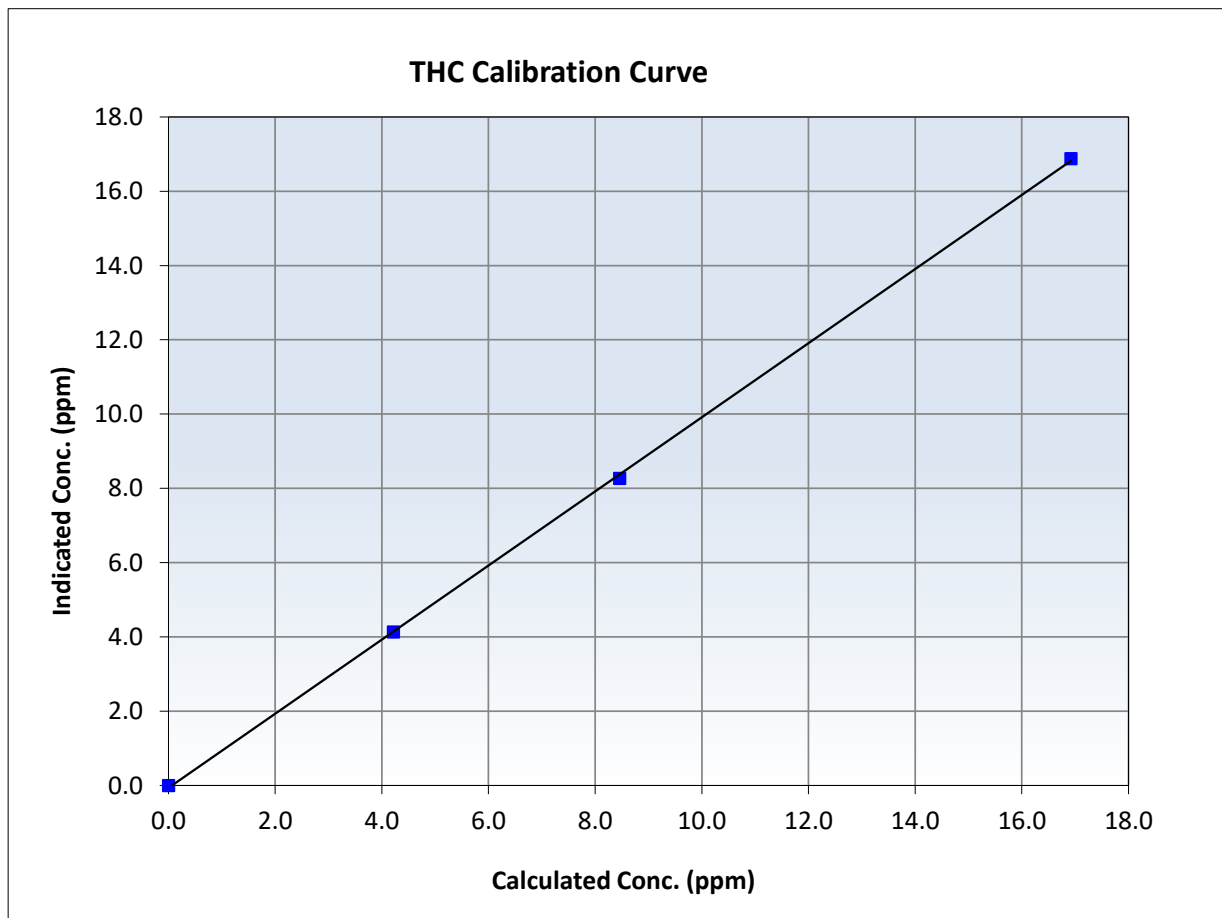
## THC Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:57	End Time (MST):	14:46
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999871 <span style="color: red;">≥0.995</span>
16.92	16.88	1.0025	Slope	0.997836 <span style="color: red;">0.90 - 1.10</span>
8.46	8.27	1.0235	Intercept	-0.064986 <span style="color: red;">+/-0.5</span>
4.22	4.13	1.0210		





# Wood Buffalo Environmental Association

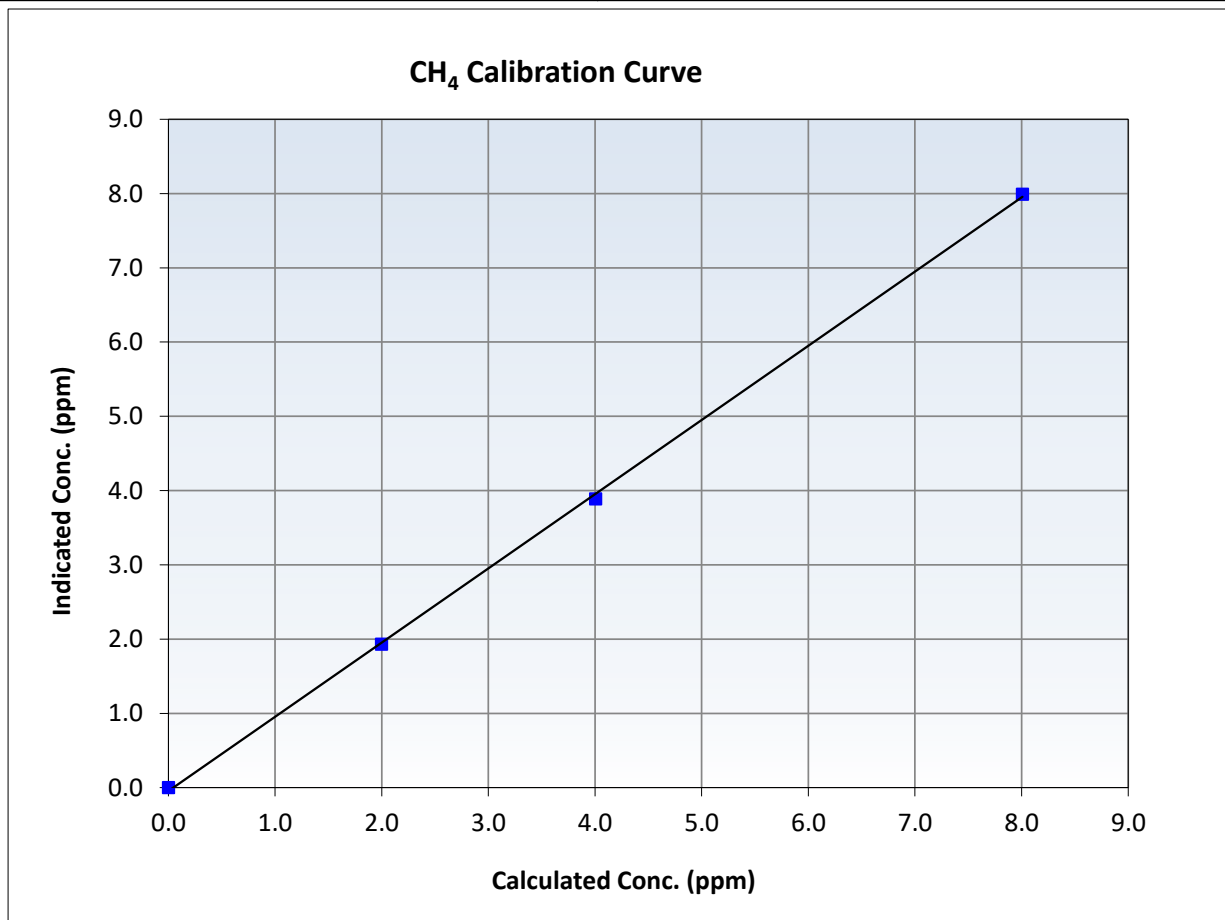
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:57	End Time (MST):	14:46
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999773	<i>≥0.995</i>
8.01	7.99	1.0018	Slope	0.999290	<i>0.90 - 1.10</i>
4.00	3.89	1.0291	Intercept	-0.045797	<i>+/-0.5</i>
2.00	1.93	1.0337			





# Wood Buffalo Environmental Association

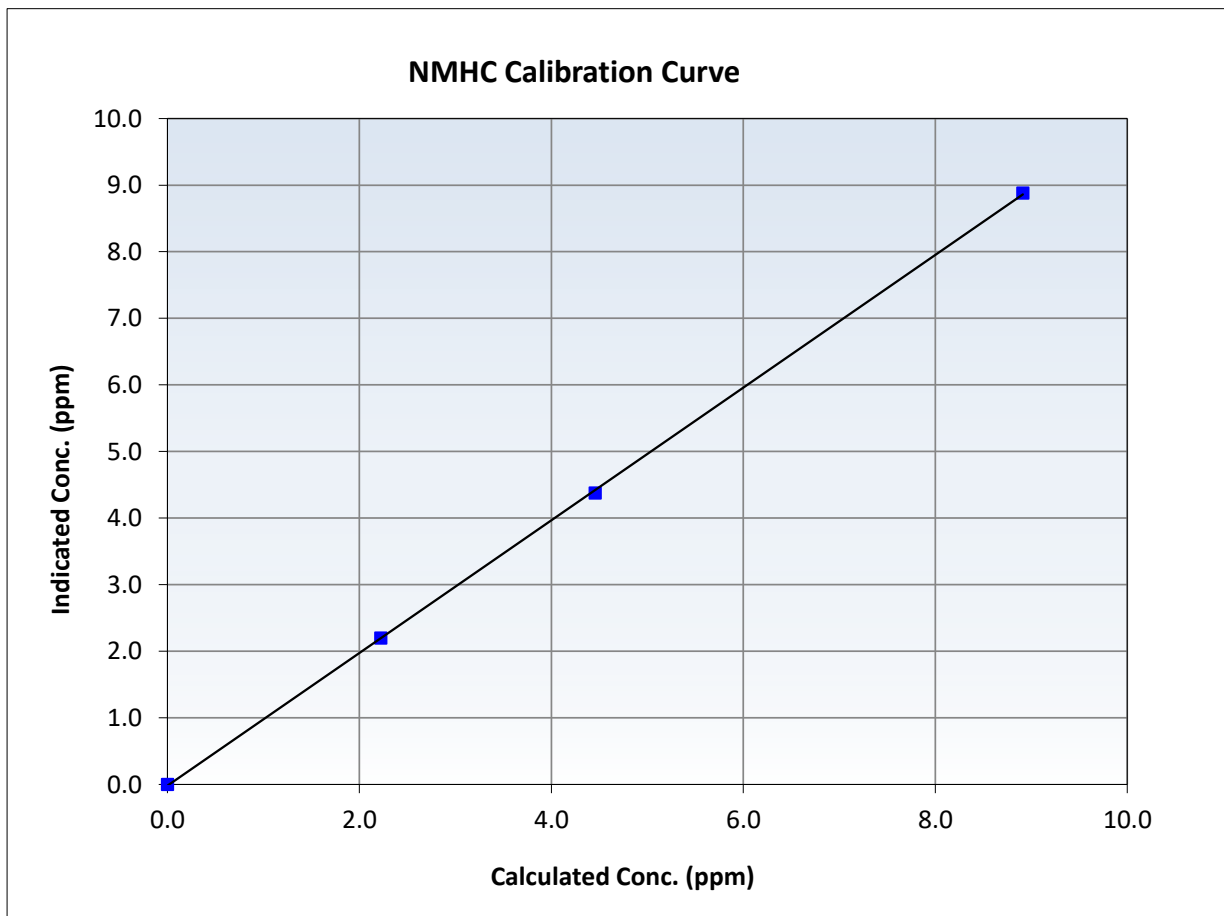
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	May 5, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:57	End Time (MST):	14:46
Analyzer make:	Thermo 55i	Analyzer serial #:	12227620777

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999935	<i>≥0.995</i>
8.91	8.88	1.0034	Slope	0.996312	<i>0.90 - 1.10</i>
4.46	4.38	1.0182	Intercept	-0.018589	<i>+/-0.5</i>
2.22	2.20	1.0099			



NMHC Calibration Plot

Date: May 14, 2026

Location: Fort Hills





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Fort Hills  
 Station number: AMS 23  
 Calibration Date: May 12, 2026  
 Last Cal Date: April 23, 2026  
 Start time (MST): 10:59  
 End time (MST): 16:44  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC358149  
 NOX Cal Gas Conc: 60.30 ppm  
 Removed Cylinder #:  
 Removed Gas NOX Conc: 60.30 ppm  
 NOX gas Diff:  
 Calibrator Model: T750  
 ZAG make/model: API T701  
 Cal Gas Expiry Date: January 5, 2032  
 NO Cal Gas Conc: 60.10 ppm  
 Removed Gas Exp Date:  
 Removed Gas NO Conc: 60.10 ppm  
 NO gas Diff:  
 Serial Number: 281  
 Serial Number: 1117

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.0	0.0	0.1	----	----
AF High point	4933	66.6	803.3	800.6	2.7	773.7	771.5	2.3	1.0382	1.0377
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 805.4 ppb		NO = 802.3 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -4.1%	
Baseline Corr 1st pt	NO <sub>x</sub> = 773.7 ppb		NO = 771.5 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -4.0%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1152430007

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.940	0.977	NO bkgnd or offset:	2.7	2.9
NOX coeff or slope:	0.992	0.991	NOX bkgnd or offset:	2.8	2.9
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	149.6	150.6

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.002741	0.996002
NO <sub>x</sub> Cal Offset:	-0.013989	1.992624
NO Cal Slope:	1.004139	0.999062
NO Cal Offset:	-1.612554	0.731930
NO <sub>2</sub> Cal Slope:	0.994459	0.998010
NO <sub>2</sub> Cal Offset:	1.562698	0.196426

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.3	0.1	0.2	----	----
High point	4933	66.6	803.3	800.6	2.7	801.3	800.4	0.8	1.0024	1.0002
Mid point	4967	33.3	401.6	400.2	1.3	402.5	400.5	2.0	0.9977	0.9994
Low point	4983	16.6	200.2	199.5	0.7	203.3	201.0	2.3	0.9848	0.9928
As left zero	5000	0.0	0.0	0.0	0.0	0.1	0.0	0.2	----	----
As left span	4933	66.6	803.3	412.6	390.7	819.9	412.6	407.4	0.9797	1.0000
Average Correction Factor									0.9950	0.9975

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.2	----	----
High GPT point	795.5	404.5	393.7	393.1	1.0014	99.9%
Mid GPT point	795.5	598.9	199.3	199.0	1.0013	99.9%
Low GPT point	795.5	698.6	99.6	99.6	0.9996	100.0%
Average Correction Factor					1.0008	99.9%

Notes: Calibration(Graph - 11:45 MST) was performed using the portable calibrator. The sample inlet filter was replaced after the as-found check, and only the span was adjusted.

Calibration Performed By: Mohammed Kashif



# Wood Buffalo Environmental Association

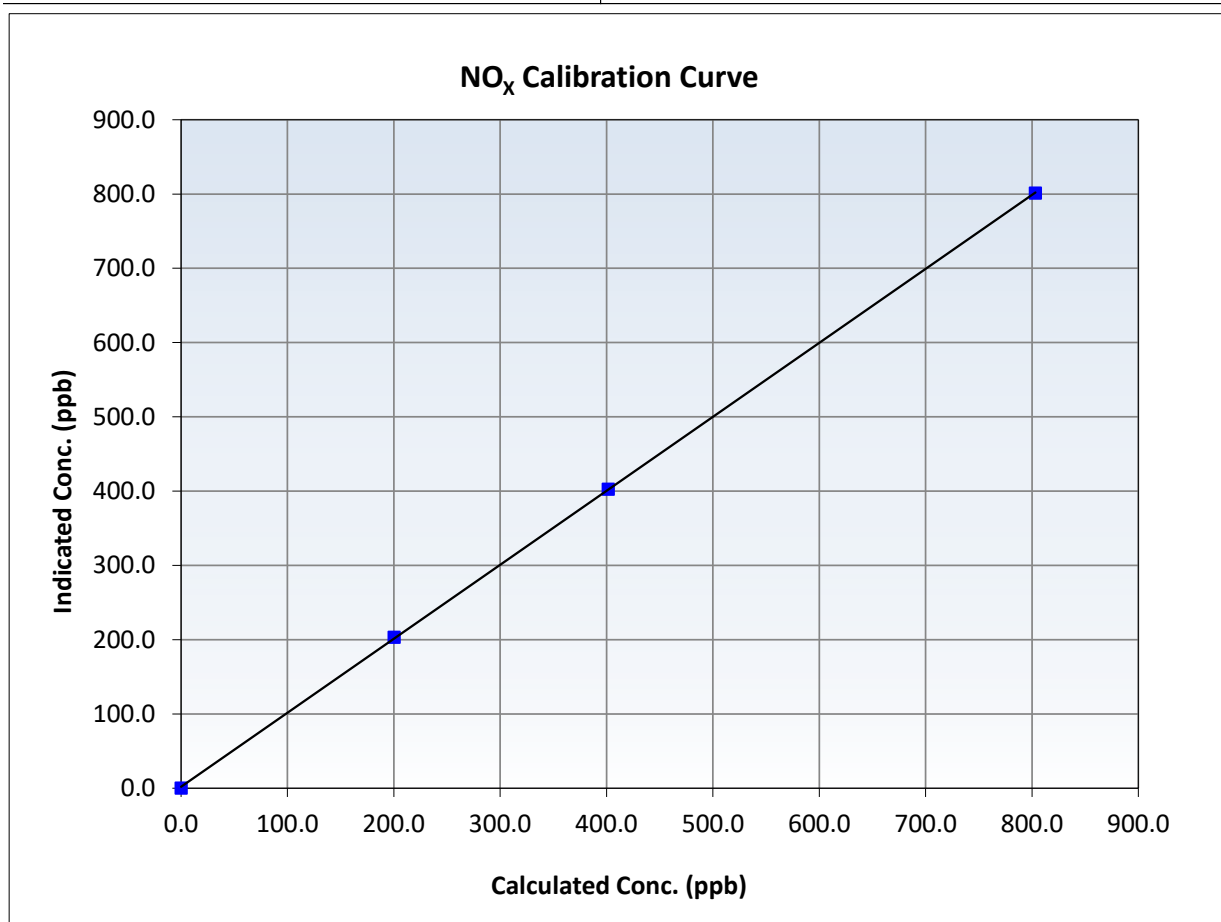
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 23, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:59	End Time (MST):	16:44
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430007

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.3	----	Correlation Coefficient	0.999979	≥0.995
803.3	801.3	1.0024	Slope	0.996002	0.90 - 1.10
401.6	402.5	0.9977	Intercept	1.992624	+/-20
200.2	203.3	0.9848			





# Wood Buffalo Environmental Association

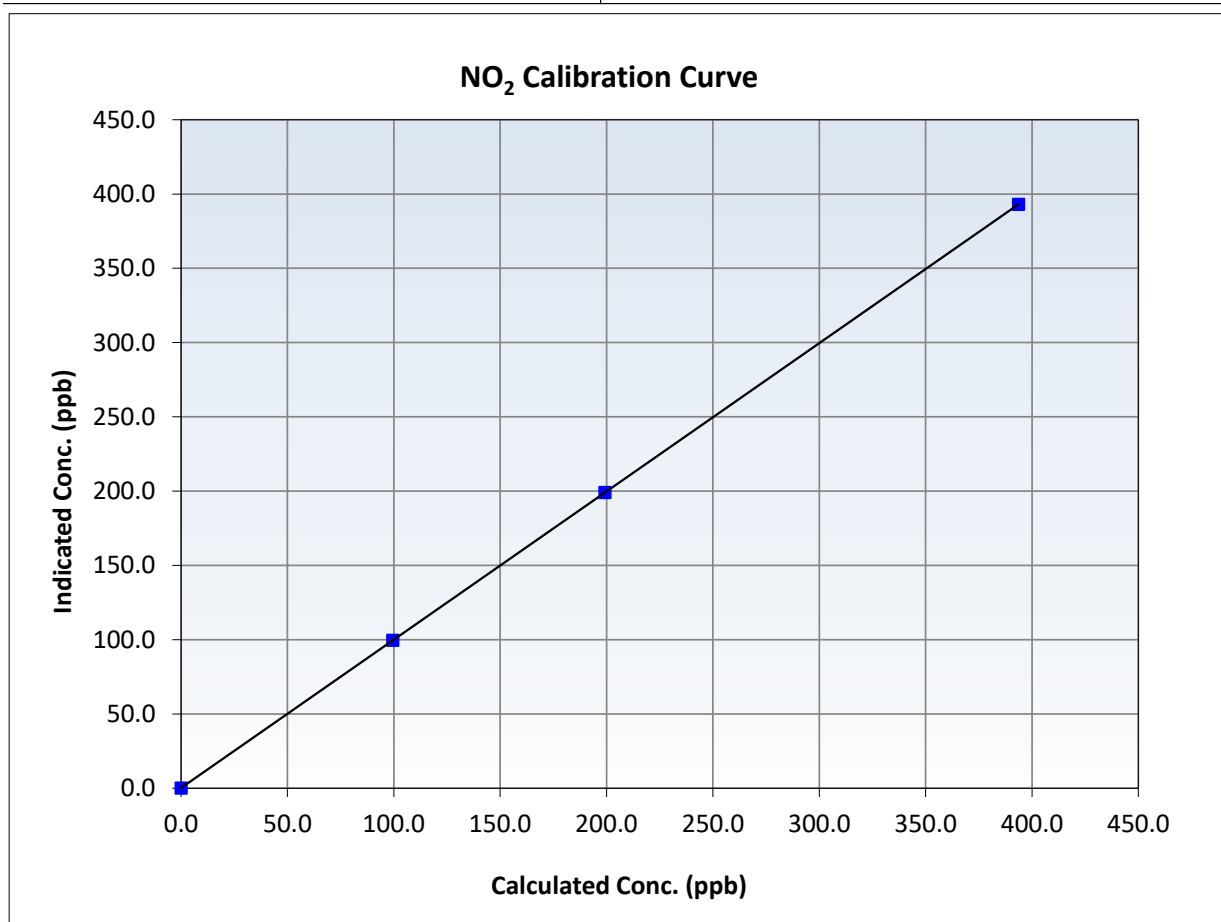
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 23, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:59	End Time (MST):	16:44
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430007

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	1.000000	≥0.995
393.7	393.1	1.0014	Slope	0.998010	0.90 - 1.10
199.3	199.0	1.0013	Intercept	0.196426	+/-20
99.6	99.6	0.9996			





# Wood Buffalo Environmental Association

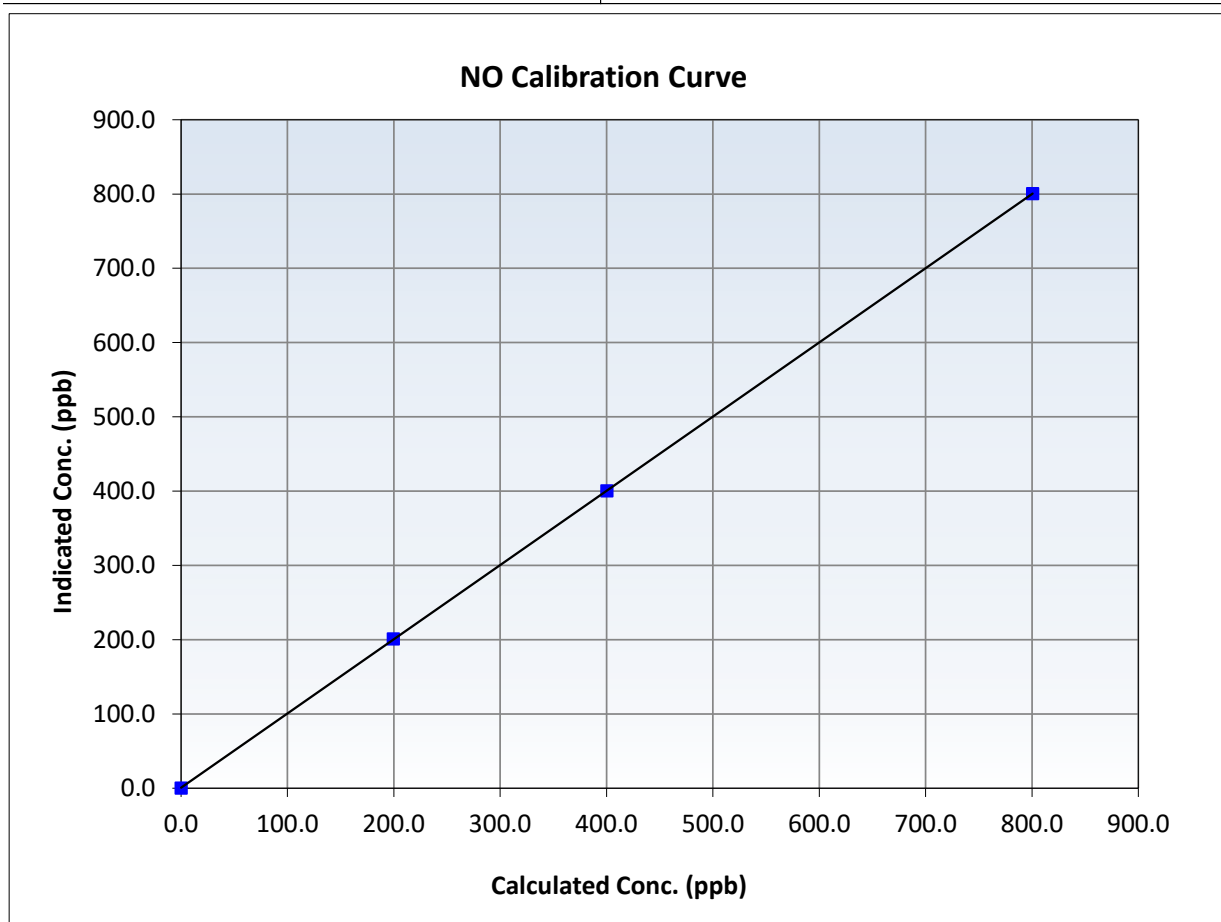
## NO Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	April 23, 2026
Station Name:	Fort Hills	Station Number:	AMS 23
Start Time (MST):	10:59	End Time (MST):	16:44
Analyzer make:	Thermo 42i	Analyzer serial #:	1152430007

### Calibration Data

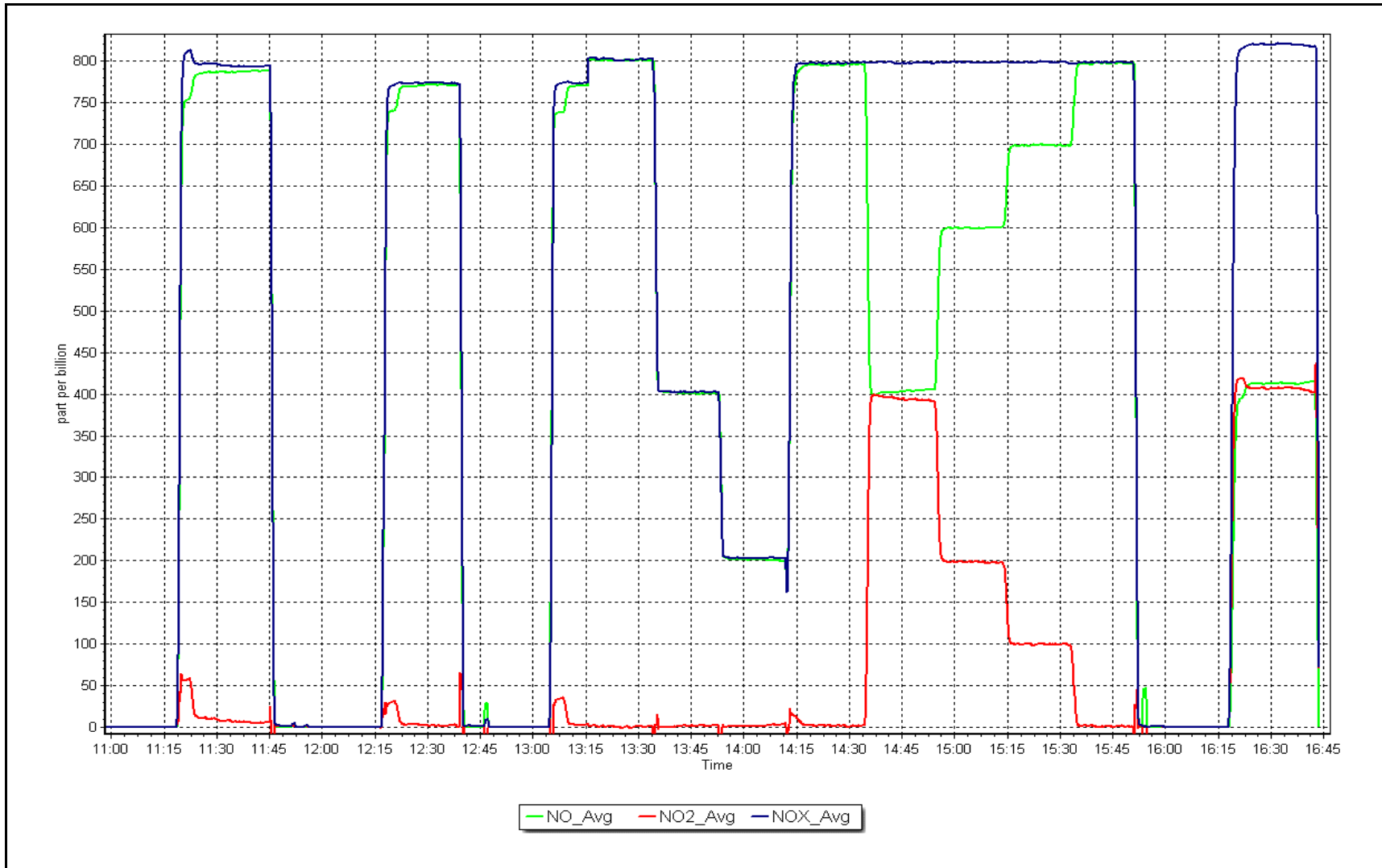
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999996	<span style="color: red;">≥0.995</span>
800.6	800.4	1.0002	Slope	0.999062	<span style="color: red;">0.90 - 1.10</span>
400.2	400.5	0.9994	Intercept	0.731930	<span style="color: red;">+/-20</span>
199.5	201.0	0.9928			



NO<sub>x</sub> Calibration Plot

Date: May 12, 2026

Location: Fort Hills





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Fort Hills Station number: AMS 23  
 Calibration Date: May 12, 2026 Last Cal Date: April 28, 2026  
 Start time (MST): 11:05 End time (MST): 13:02

Analyzer Make: API T640 S/N: 320  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388749  
 Temp/RH standard: Alicat FP-25BT S/N: 388749

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	19.8	19.26	19.8	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	735.4	735.08	735.4	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	4.96	4.982	4.96	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	31	----	31	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	20.0	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: **10.9** Expiry Date: 16-Jul-26  
 Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	NA	8.1	10.8	<input checked="" type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: May 12, 2026  
 Date Disposable Filter Changed: May 12, 2026

Post- maintenance Zero Verification: PM w/ HEPA: 0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: May 12, 2026  
 Date RH/T Sensor Cleaned: May 12, 2026

Notes: Leak check, flow, and PMT were checked before and after cleaning. No result was obtained from the as-found PMT check. After cleaning the optical chamber, the PMT verified at 8.1 and was adjusted accordingly.

Calibration by: Mohammed Kashif



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS25 WASKŌW OHCI PIMÂTISIWIN MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Waskow ohci Pimatisiwin	Station number: AMS 25
Calibration Date:	May 7, 2026	Last Cal Date: April 2, 2026
Start time (MST):	11:41	End time (MST): 14:39
Reason:	Routine	

### Calibration Standards

Cal Gas Concentration:	49.70	ppm	Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #:	CC342445		
Removed Cal Gas Conc:	49.70	ppm	Rem Gas Exp Date:
Removed Gas Cyl #:			Diff between cyl:
Calibrator Model:	API T700		Serial Number: 621
Zero Air Gen Model:	API T701		Serial Number: 4765

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number: 1118148497
Analyzer Range:	0-1000ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001185	0.999055	Backgd or Offset:	12.7	11.7
Calibration intercept:	-0.652482	0.067513	Coeff or Slope:	1.090	1.063

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-1.0	----
As found High point	4920	80.5	800.1	817.2	0.978
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	818.2	Previous response	800.4	*% change	2.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4920	80.5	800.1	799.3	1.001
Mid point	4960	40.2	399.6	399.6	1.000
Low point	4980	20.1	199.8	199.4	1.002
As left zero	5000	0.0	0.0	0.1	----
As left span	4920	80.5	800.1	800.5	0.999
Average Correction Factor:					1.001

Notes: Changed the inlet filter after as founds. Adjusted the zero and span.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

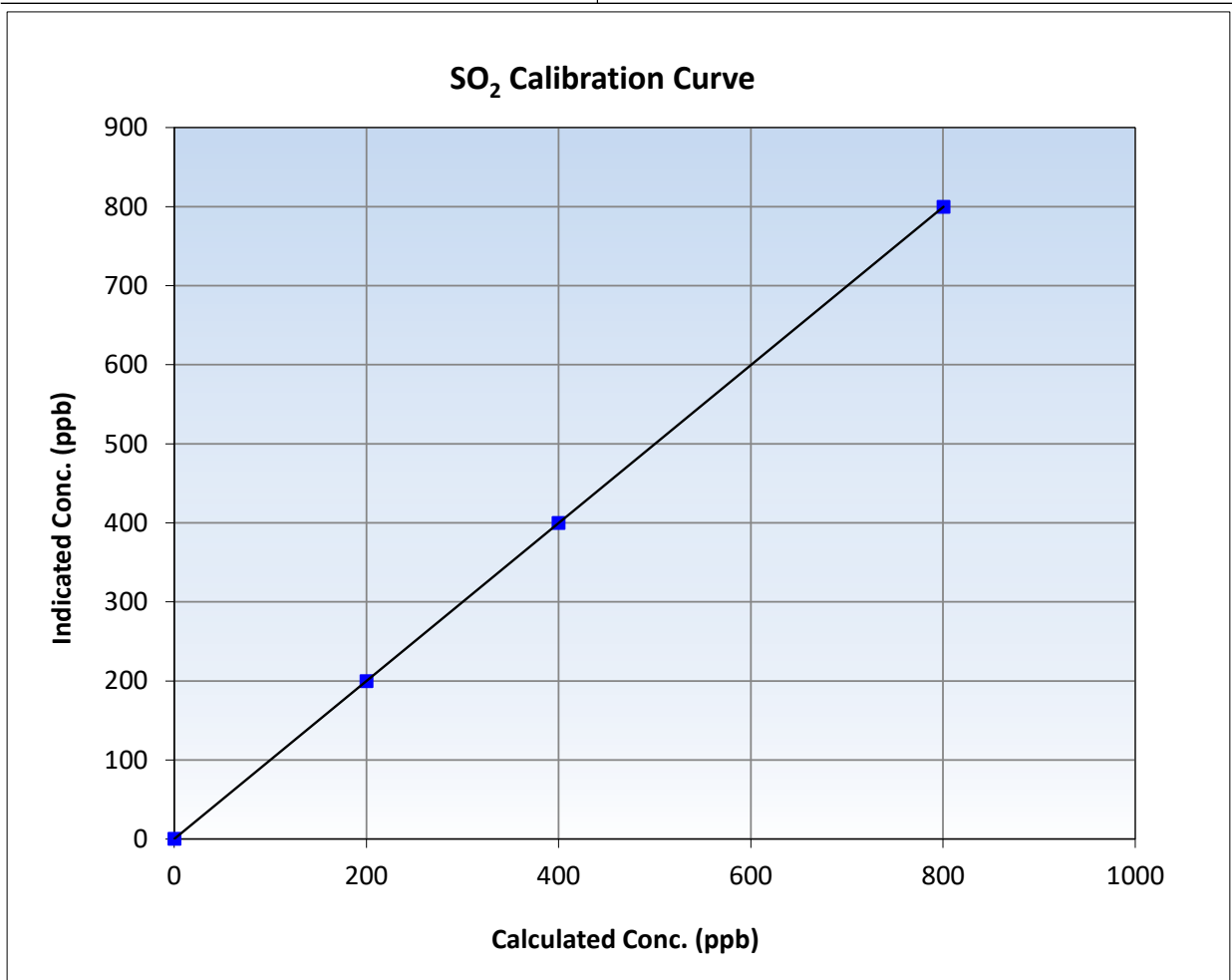
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 2, 2026
Station Name:	Waskow ohci Pimatisiwin	Station Number:	AMS 25
Start Time (MST):	11:41	End Time (MST):	14:39
Analyzer make:	Thermo 43i	Analyzer serial #:	1118148497

### Calibration Data

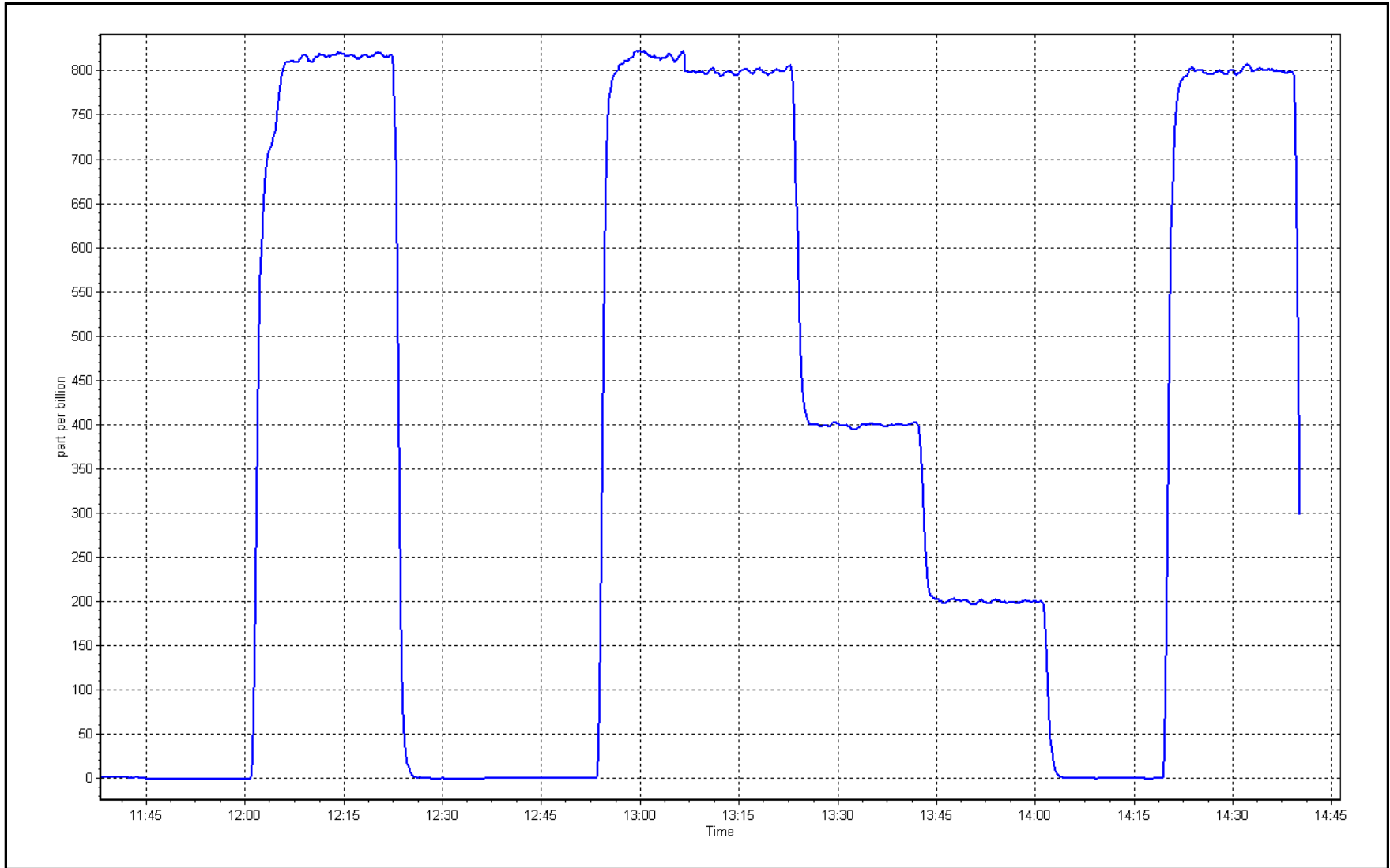
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999999	<b>≥0.995</b>
800.1	799.3	1.0010	Slope	0.999055	<b>0.90 - 1.10</b>
399.6	399.6	0.9999	Intercept	0.067513	<b>+/-30</b>
199.8	199.4	1.0020			



SO2 Calibration Plot

Date: May 7, 2026

Location: Waskow ohci Pimatisiwin





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Waskow ohci Pimatisiwin	Station number:	AMS 25
Calibration Date:	May 19, 2026	Last Cal Date:	April 1, 2026
Start time (MST):	9:55	End time (MST):	14:09
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.97	ppm	Cal Gas Exp Date:	January 3, 2026
Cal Gas Cylinder #:	CC517099			
Removed Cal Gas Conc:	4.97	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Make/Model:	API T700		Serial Number:	747
ZAG Make/Model:	API T701		Serial Number:	261

### Analyzer Information

Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1170050146
Converter make:	Global G-150	Converter serial #:	2024-287
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.002080	0.998935	Backgd or Offset:	3.89	3.88
Calibration intercept:	-0.037792	-0.077670	Coeff or Slope:	1.161	1.138

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4919	80.5	80.0	81.7	0.978
As found Mid point	4960	40.3	40.1	40.8	0.979
As found Low point	4980	20.1	20.0	20.4	0.975
New cylinder response					
Baseline Corr As found:	81.8	Prev response:	80.15	*% change:	2.0%
Baseline Corr 2nd AF pt:	40.9	AF Slope:	1.021783	AF Intercept:	-0.077671
Baseline Corr 3rd AF pt:	20.5	AF Correlation:	0.999998	<i>* = +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4919	80.5	80.0	79.9	1.002
Mid point	4960	40.3	40.1	39.8	1.006
Low point	4980	20.1	20.0	20.0	0.999
As left zero	5000	0.0	0.0	0.2	----
As left span	4920	80.0	800.0	818.0	0.978
SO2 Scrubber Check	4920	80.0	800.0	0.1	----
Date of last scrubber change:				Ave Corr Factor	1.002
Date of last converter efficiency test:	February 12, 2025			111.0%	efficiency

Notes: Changed the inlet filter and performed an SO<sub>2</sub> scrubber check after the as founds. Adjusted the span.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

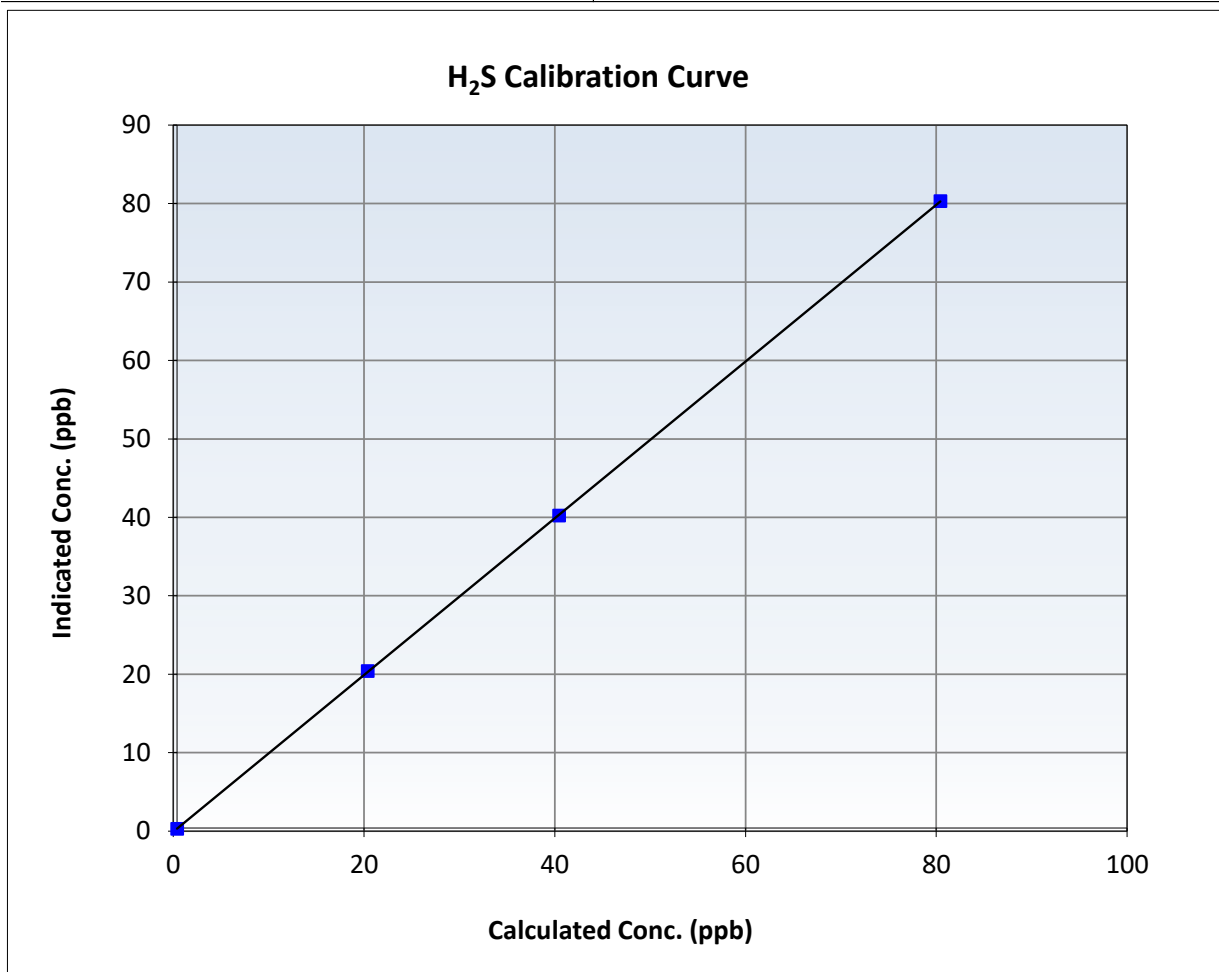
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 19, 2026	Previous Calibration:	April 1, 2026
Station Name:	Waskow ohci Pimatisiwin	Station Number:	AMS 25
Start Time (MST):	9:55	End Time (MST):	14:09
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1170050146

### Calibration Data

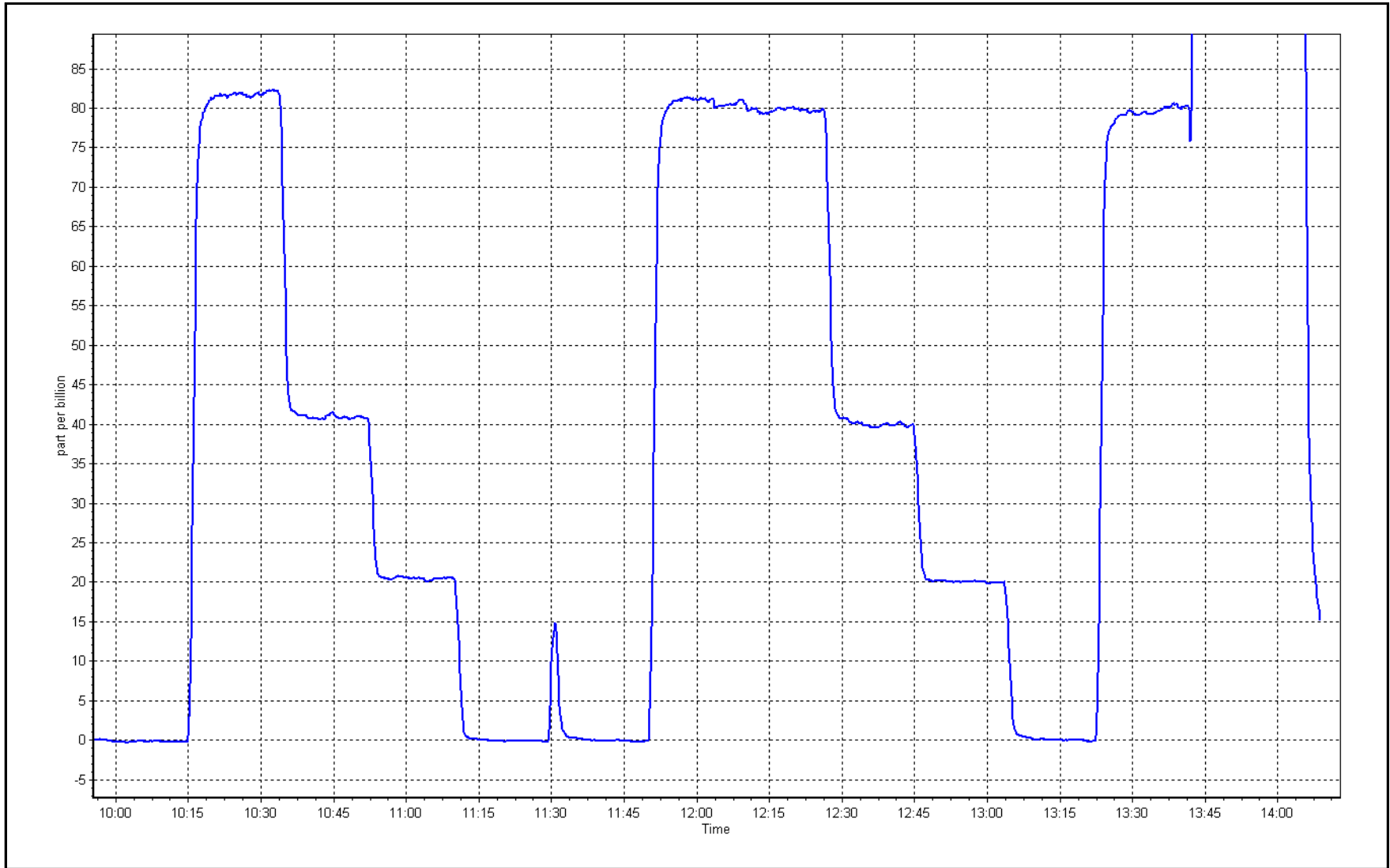
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999990	≥0.995
80.0	79.9	1.0016	Slope	0.998935	0.90 - 1.10
40.1	39.8	1.0064	Intercept	-0.077670	+/-3
20.0	20.0	0.9990			



H<sub>2</sub>S Calibration Plot

Date: May 19, 2026

Location: Waskow ohci Pimatisiwin





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS27**  
**JACKFISH 2/3**  
**MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Jackfish 2/3	Station number:	AMS 27
Calibration Date:	May 14, 2026	Last Cal Date:	April 16, 2026
Start time (MST):	9:54	End time (MST):	12:36
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.58	ppm	Cal Gas Exp Date:	December 29, 2028
Cal Gas Cylinder #:	SG9133974BAL			
Removed Cal Gas Conc:	50.58	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	API T700		Serial Number:	5252
Zero Air Gen Model:	API 701		Serial Number:	268

### Analyzer Information

Analyzer make:	Thermo 43iQ-TL	Serial Number:	12124313138
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997979	1.003765	Backgd or Offset:	11.0	11.0
Calibration intercept:	0.385868	0.185658	Coeff or Slope:	0.921	0.911

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4921	79.1	800.2	810.9	0.987
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	811.1	Previous response	798.9	*% change	1.5%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.2	----
High point	4921	79.1	800.2	803.1	0.996
Mid point	4960	39.5	399.6	401.7	0.995
Low point	4980	19.8	200.3	201.5	0.994
As left zero	5000	0.0	0.0	-0.2	----
As left span	4921	79.1	800.2	804.7	0.994
Average Correction Factor:					0.995

Notes: Changed the sample inlet filter after as founds. Span adjusted.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

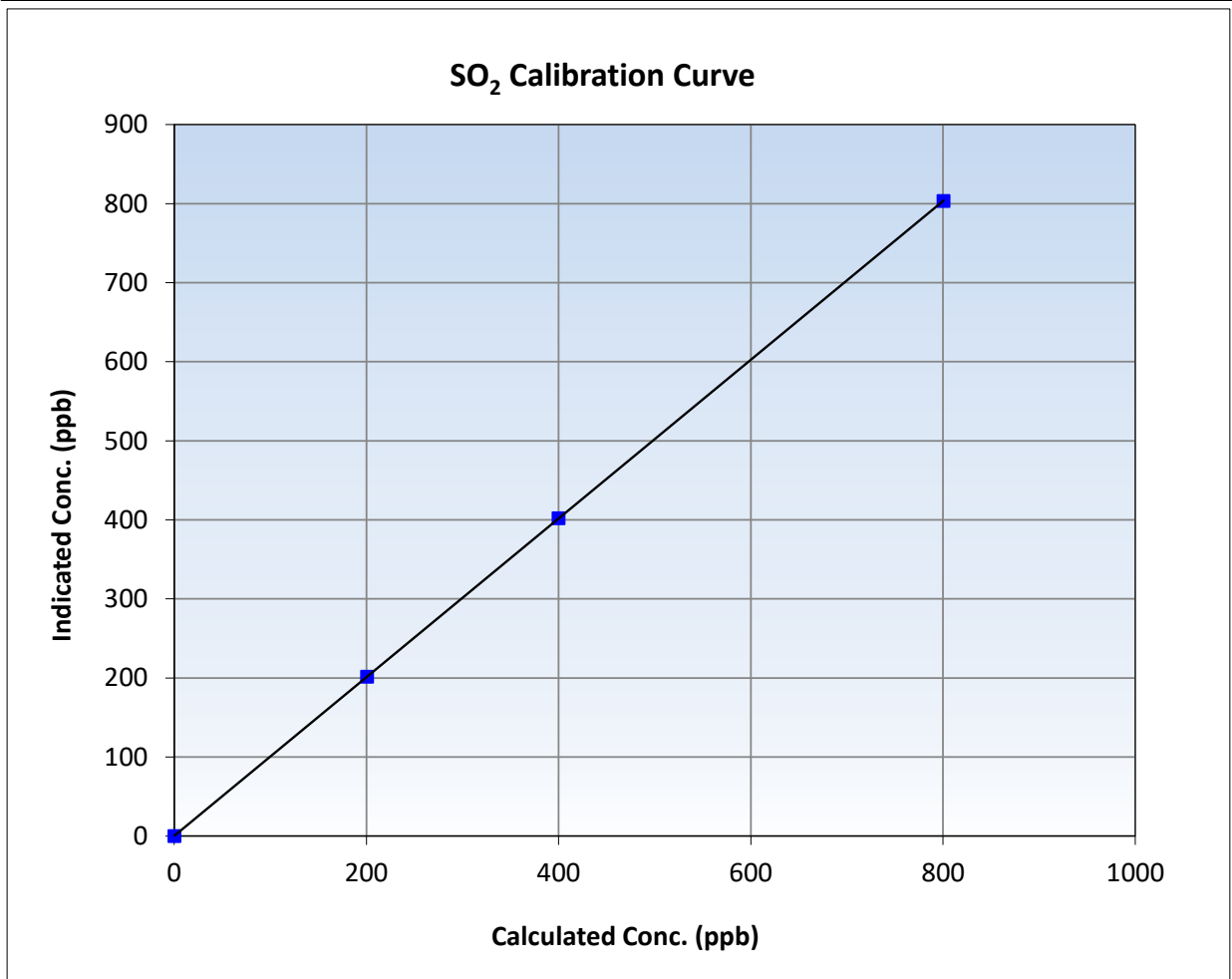
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 16, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:54	End Time (MST):	12:36
Analyzer make:	Thermo 43iQ-TL	Analyzer serial #:	12124313138

### Calibration Data

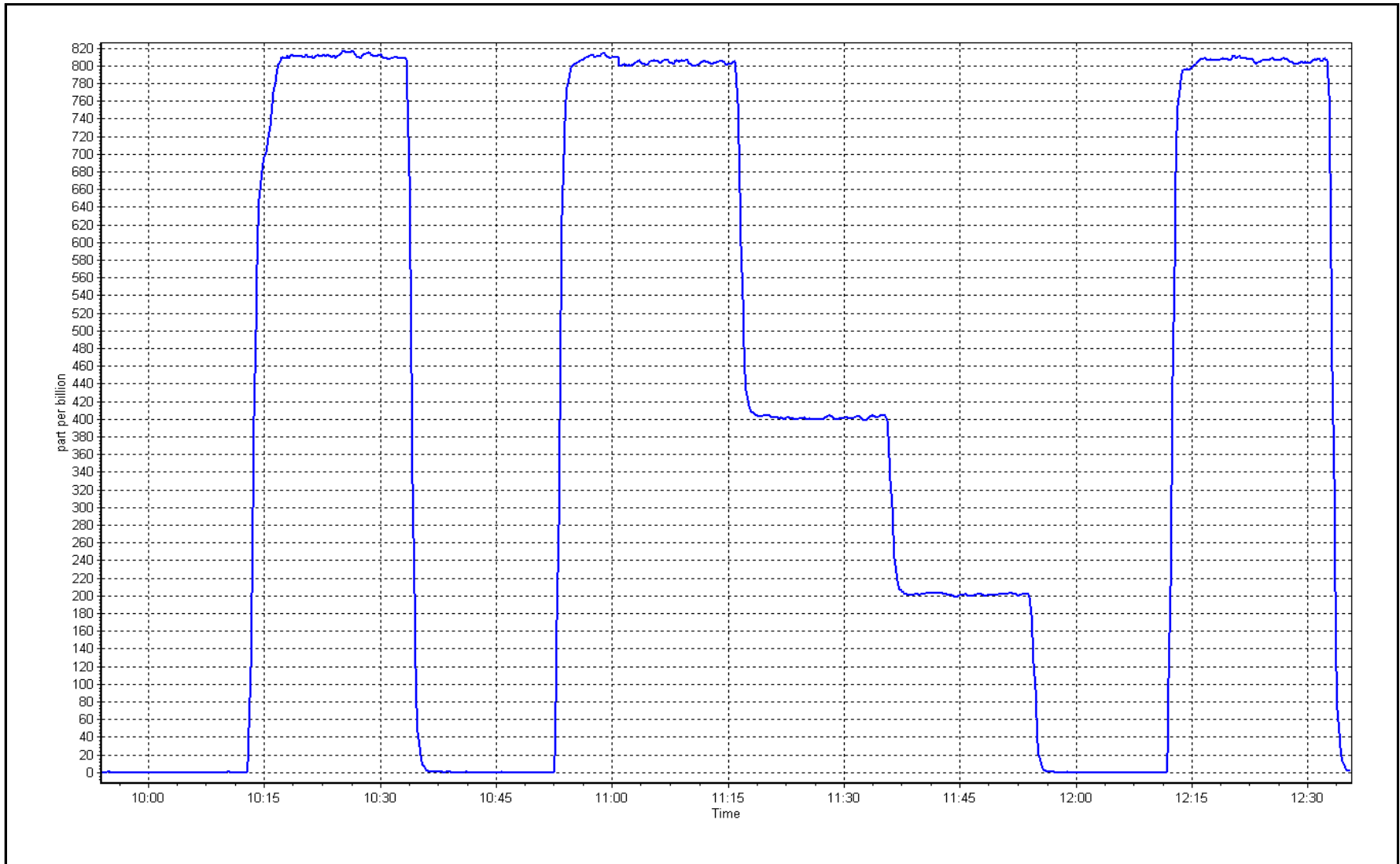
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	-0.2	----	Correlation Coefficient	0.999999	<b>≥0.995</b>
800.2	803.1	0.9963	Slope	1.003765	<b>0.90 - 1.10</b>
399.6	401.7	0.9948	Intercept	0.185658	<b>+/-30</b>
200.3	201.5	0.9941			



SO2 Calibration Plot

Date: May 14, 2026

Location: Jackfish 2/3





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Jackfish 2/3	Station number:	AMS 27
Calibration Date:	May 26, 2026	Last Cal Date:	April 22, 2026
Start time (MST):	9:24	End time (MST):	13:09
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.87 ppm	Cal Gas Exp Date:	September 5, 2027
Cal Gas Cylinder #:	CC523090		
Removed Cal Gas Conc:	4.87 ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA	Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700	Serial Number:	5252
ZAG Make/Model:	Teledyne API T701H	Serial Number:	268

### Analyzer Information

Analyzer make:	Thermo 43iQ	Analyzer serial #:	12228021055
Converter make:	Global G150	Converter serial #:	2022-195
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001286	1.002006	Backgd or Offset:	3.3	3.2
Calibration intercept:	-0.260837	-0.261044	Coeff or Slope:	1.049	1.031

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4918	82.1	80.0	81.2	0.981
As found Mid point	4959	41.1	40.0	40.4	0.984
As found Low point	4979	20.5	20.0	20.0	0.984
New cylinder response					
Baseline Corr As found:	81.5	Prev response:	79.81	*% change:	2.1%
Baseline Corr 2nd AF pt:	40.7	AF Slope:	1.019294	AF Intercept:	-0.340950
Baseline Corr 3rd AF pt:	20.3	AF Correlation:	0.999998	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.3	----
High point	4918	82.1	80.0	79.8	1.002
Mid point	4959	41.1	40.0	40.0	1.001
Low point	4979	20.5	20.0	19.7	1.014
As left zero	5000	0.0	0.0	-0.2	----
As left span	4918	82.1	80.0	80.1	0.998
SO2 Scrubber Check	4921	79.1	791.0	0.0	----
Date of last scrubber change:	18-Nov-25			Ave Corr Factor	1.005
Date of last converter efficiency test:	April 23, 2025				

Notes: Sample inlet filter was changed after multipoint as founds. SO2 scrubber check done and passed. Adjusted span only.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

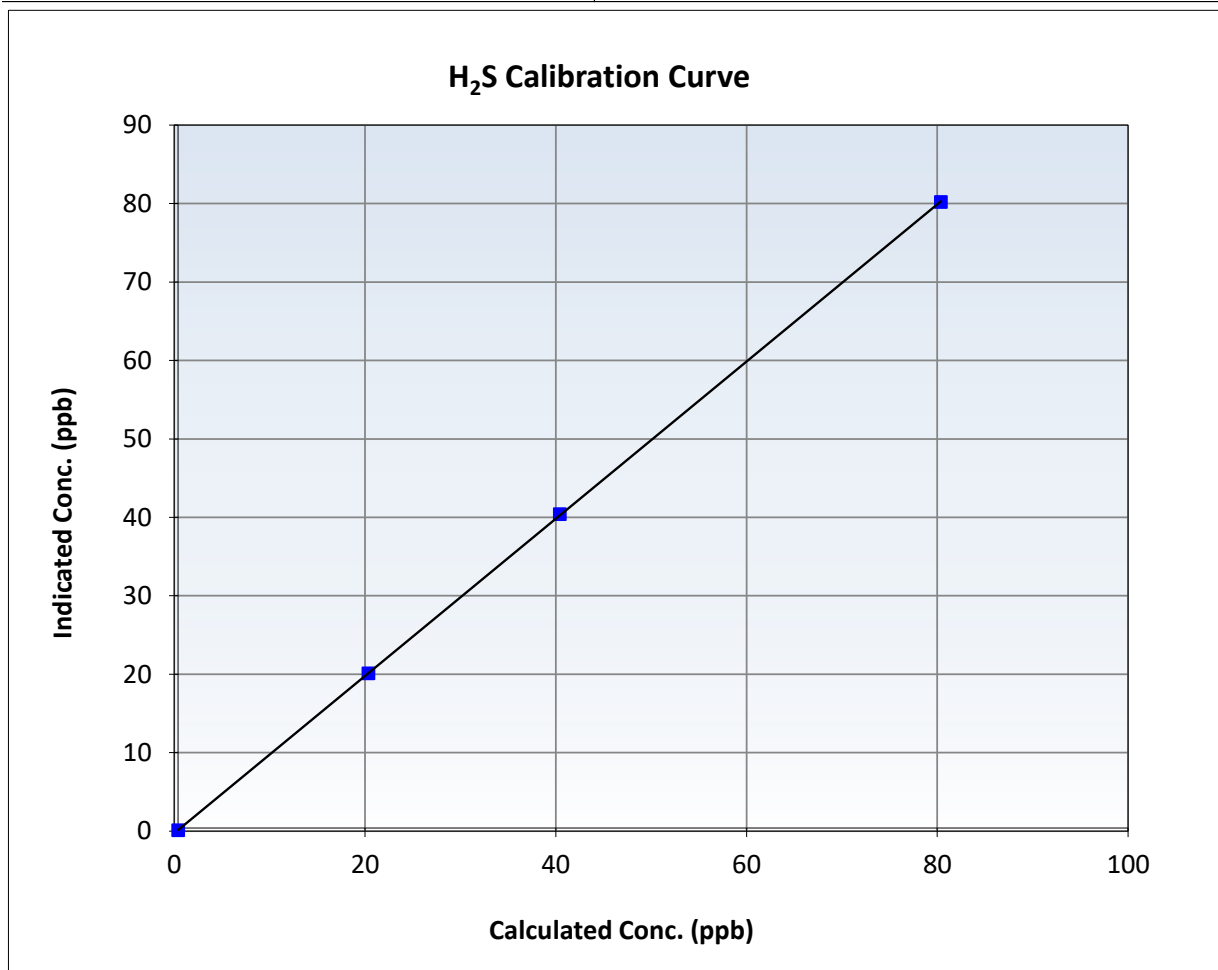
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 22, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	9:24	End Time (MST):	13:09
Analyzer make:	Thermo 43iQ	Analyzer serial #:	12228021055

### Calibration Data

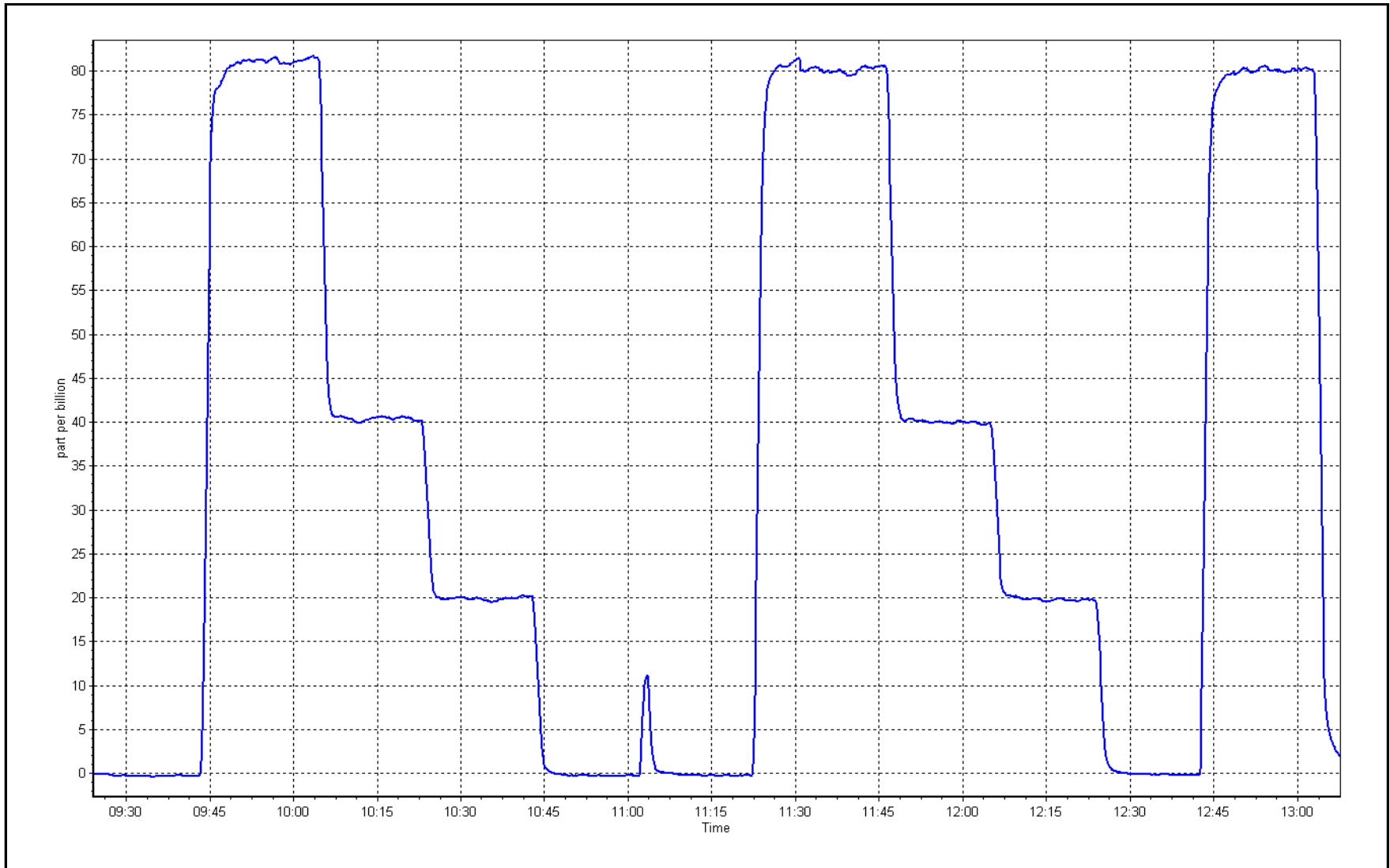
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.3	----	Correlation Coefficient	0.999991	$\geq 0.995$
80.0	79.8	1.0021	Slope	1.002006	$0.90 - 1.10$
40.0	40.0	1.0008	Intercept	-0.261044	$\pm 3$
20.0	19.7	1.0137			



H<sub>2</sub>S Calibration Plot

Date: May 26, 2026

Location: Jackfish 2/3





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Jackfish 2/3  
 Station number: AMS 27  
 Calibration Date: May 28, 2026  
 Last Cal Date: April 21, 2026  
 Start time (MST): 8:58  
 End time (MST): 13:06  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC757838  
 NOX Cal Gas Conc: 60.30 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 60.30 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T750  
 ZAG make/model: Teledyne API T751H  
 Cal Gas Expiry Date: January 9, 2032  
 NO Cal Gas Conc: 60.20 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 60.20 ppm  
 NO gas Diff:  
 Serial Number: 282  
 Serial Number: 321

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.9	-1.1	0.2	----	----
AF High point	4934	66.4	800.7	799.4	1.3	793.9	787.7	6.2	1.0074	1.0134
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 799.2 ppb	NO = 796.9 ppb				<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.6%	
Baseline Corr 1st pt	NO <sub>x</sub> = 794.8 ppb	NO = 788.8 ppb				<u>As Found Statistics</u>		*Percent Change	NO = -1.0%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb				As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: API T200  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1035

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.871	0.876	NO bkgnd or offset:	-4.8	-6.0
NOX coeff or slope:	0.863	0.867	NOX bkgnd or offset:	-4.1	-5.5
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	4.5	4.3

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.998456	1.000497
NO <sub>x</sub> Cal Offset:	-0.236001	0.523957
NO Cal Slope:	0.998685	0.999671
NO Cal Offset:	-1.435923	-0.155968
NO <sub>2</sub> Cal Slope:	0.993495	0.998248
NO <sub>2</sub> Cal Offset:	-0.112802	-1.766261

### Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.2	----	----
High point	4934	66.4	800.7	799.4	1.3	801.3	799.1	2.2	0.9993	1.0004
Mid point	4967	33.2	400.4	399.7	0.7	401.6	399.4	2.2	0.9970	1.0008
Low point	4983	16.6	200.2	199.9	0.3	201.2	199.2	2.0	0.9951	1.0034
As left zero	5000	0.0	0.0	0.0	0.0	0.0	0.5	-0.4	----	----
As left span	4934	66.4	800.7	380.4	420.3	796.6	380.4	416.3	1.0052	1.0000
Average Correction Factor									0.9971	1.0015

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.2	----	----
High GPT point	798.1	374.3	425.1	423.7	1.0034	99.7%
Mid GPT point	798.1	584.3	215.1	211.4	1.0176	98.3%
Low GPT point	798.1	687.1	112.3	109.3	1.0277	97.3%
Average Correction Factor					1.0162	98.4%

Notes: Changed sample inlet filter after as founds. Adjusted zero and span. Used 2nd NO reference point due to drift.

Calibration Performed By: Sean Bala



# Wood Buffalo Environmental Association

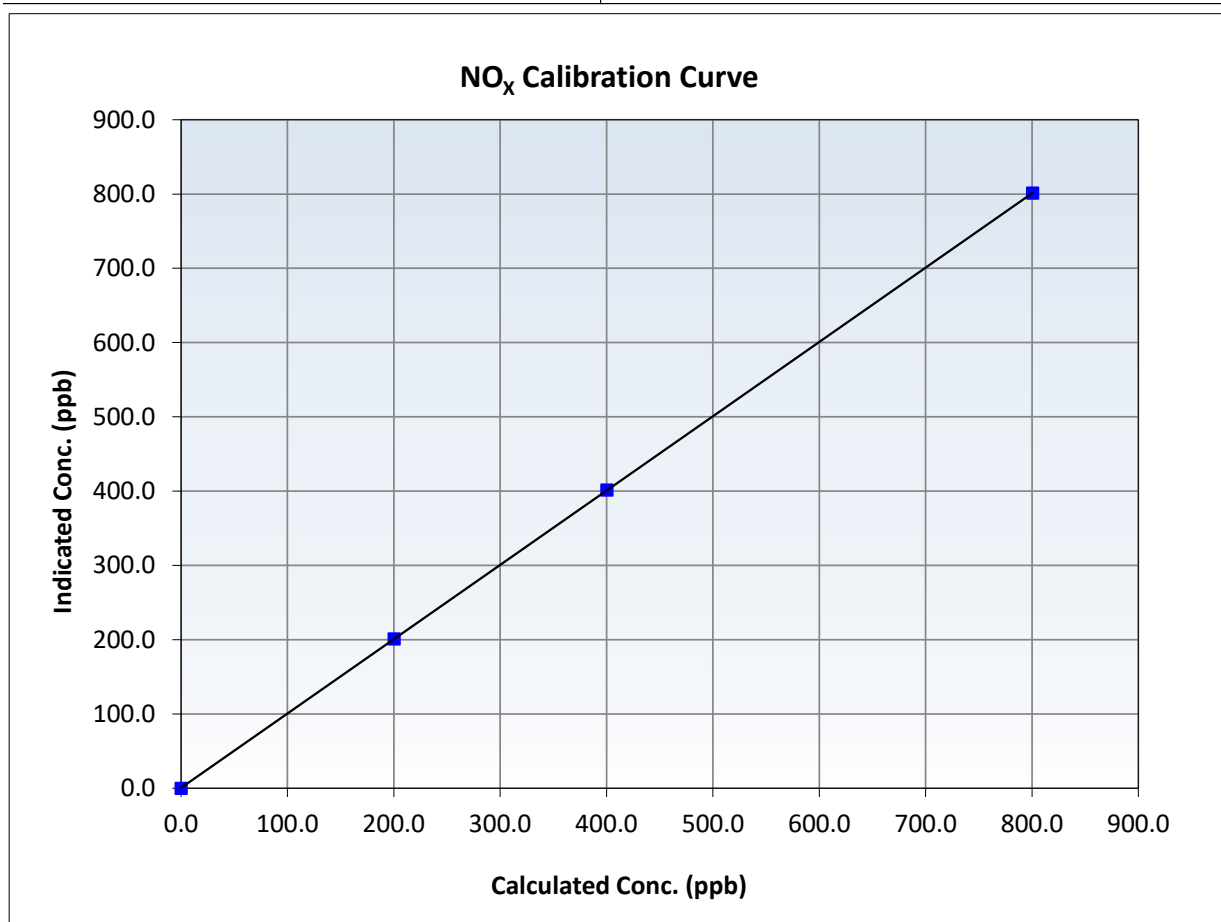
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 21, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	8:58	End Time (MST):	13:06
Analyzer make:	API T200	Analyzer serial #:	1035

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999998	≥0.995
800.7	801.3	0.9993	Slope	1.000497	0.90 - 1.10
400.4	401.6	0.9970	Intercept	0.523957	+/-20
200.2	201.2	0.9951			





# Wood Buffalo Environmental Association

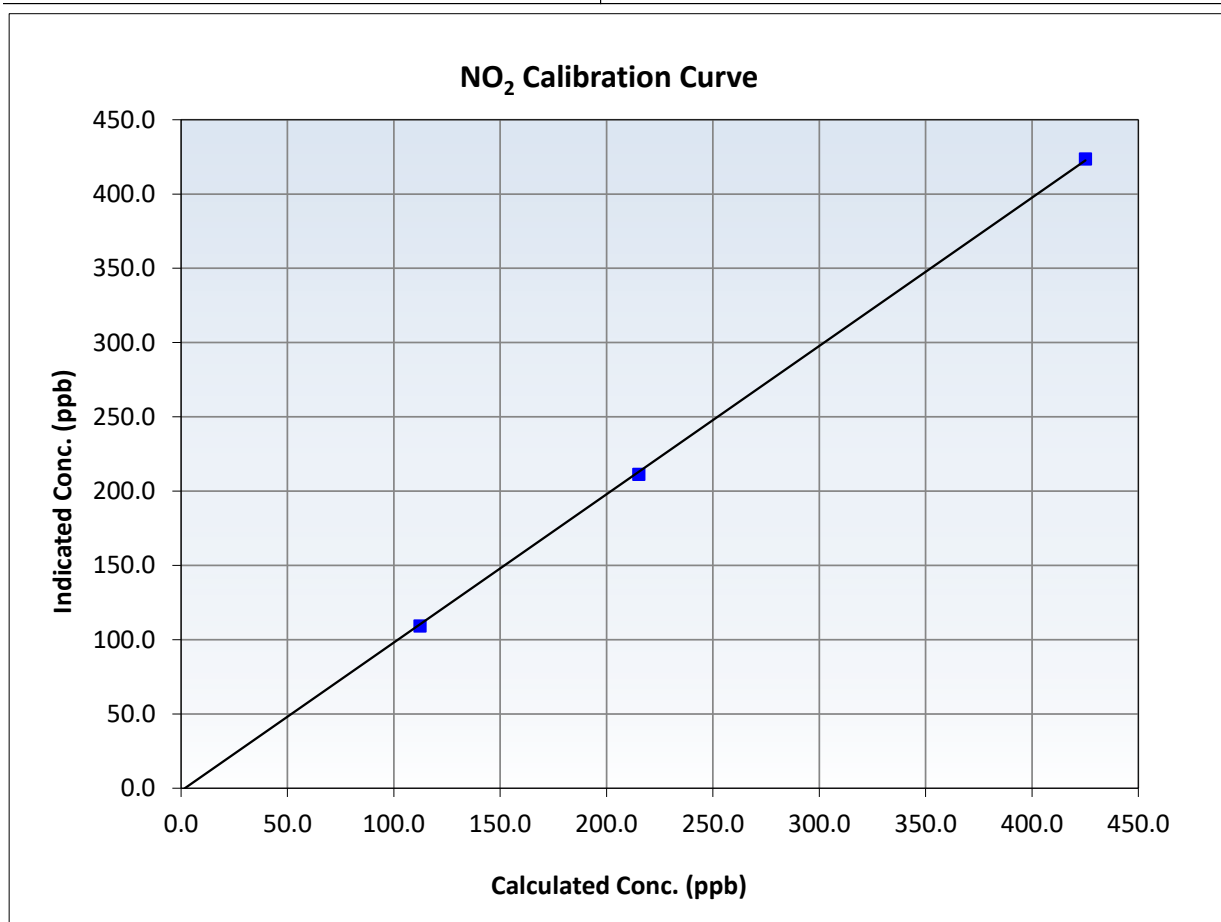
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 21, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	8:58	End Time (MST):	13:06
Analyzer make:	API T200	Analyzer serial #:	1035

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.2	----	Correlation Coefficient	0.999926	≥0.995
425.1	423.7	1.0034	Slope	0.998248	0.90 - 1.10
215.1	211.4	1.0176	Intercept	-1.766261	+/-20
112.3	109.3	1.0277			





# Wood Buffalo Environmental Association

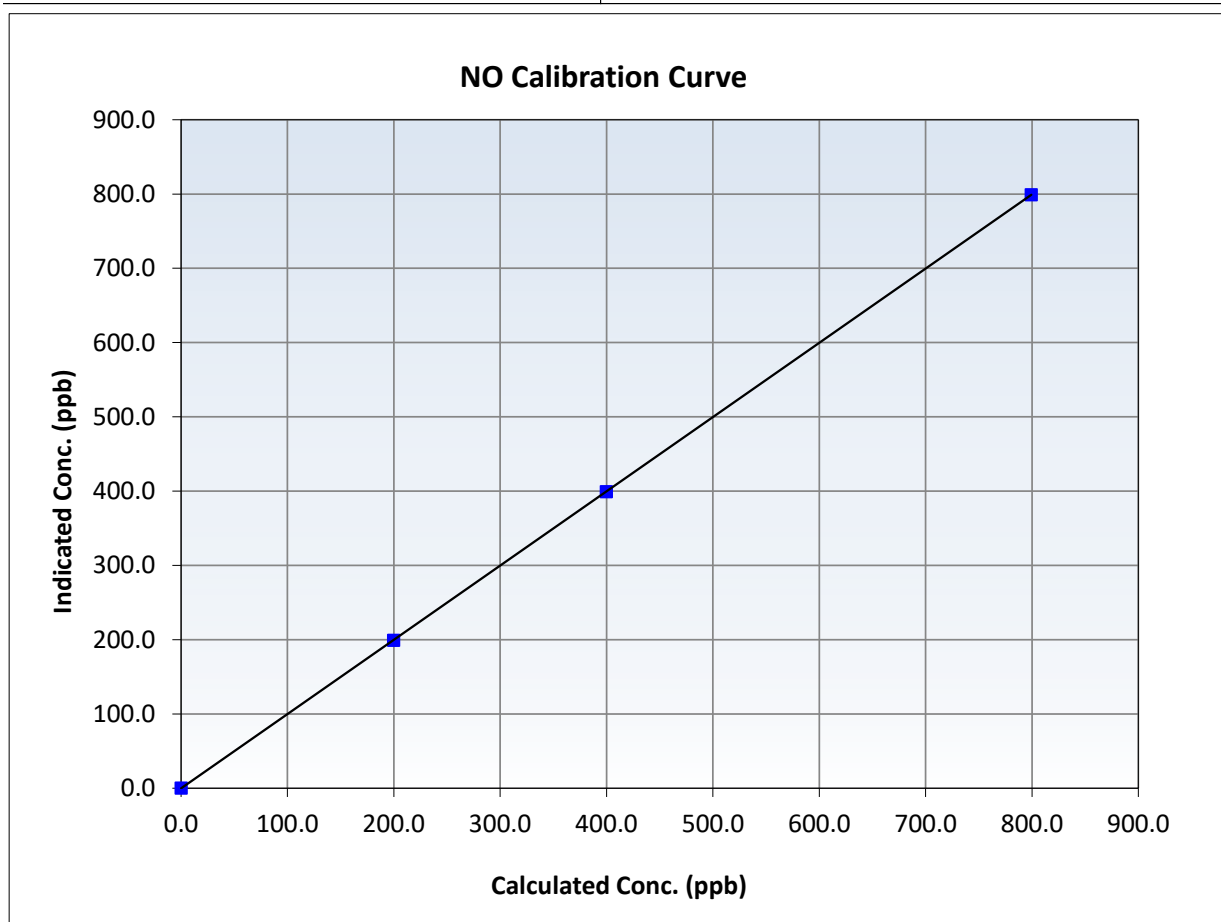
## NO Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 21, 2026
Station Name:	Jackfish 2/3	Station Number:	AMS 27
Start Time (MST):	8:58	End Time (MST):	13:06
Analyzer make:	API T200	Analyzer serial #:	1035

### Calibration Data

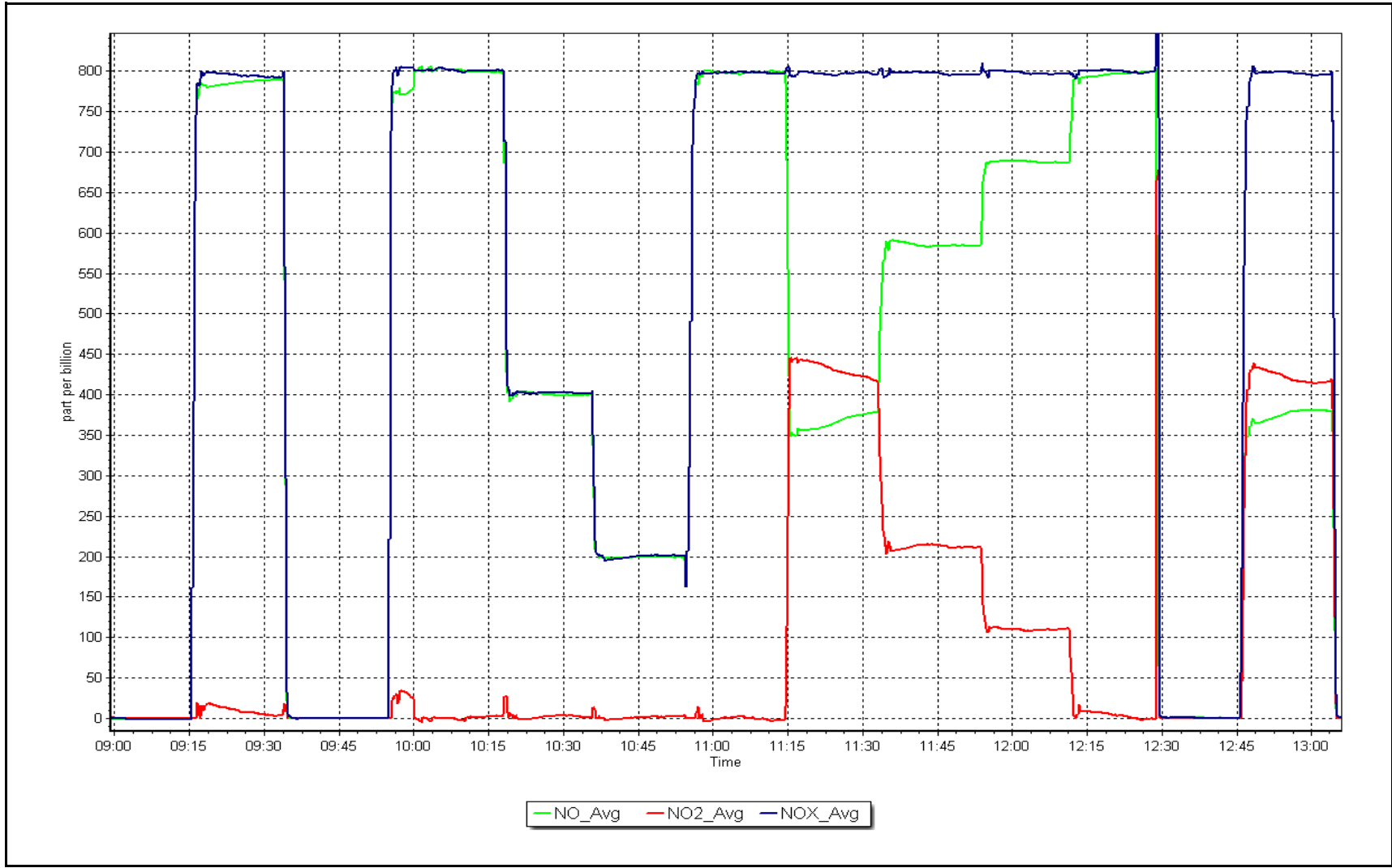
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999999	<span style="color: red;">≥0.995</span>
799.4	799.1	1.0004	Slope	0.999671	<span style="color: red;">0.90 - 1.10</span>
399.7	399.4	1.0008	Intercept	-0.155968	<span style="color: red;">+/-20</span>
199.9	199.2	1.0034			



NO<sub>x</sub> Calibration Plot

Date: May 28, 2026

Location: Jackfish 2/3





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS29  
SURMONT 2  
MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Surmont 2	Station number:	AMS 29
Calibration Date:	May 6, 2026	Last Cal Date:	April 13, 2026
Start time (MST):	7:00	End time (MST):	10:01
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	49.95	ppm	Cal Gas Exp Date:	October 9, 2032
Cal Gas Cylinder #:	CC356229			
Removed Cal Gas Conc:	49.95	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	5472
Zero Air Gen Model:	Teledyne API T701		Serial Number:	1402

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1170050150
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004302	1.000388	Backgd or Offset:	15.5	14.5
Calibration intercept:	-1.879979	-1.260673	Coeff or Slope:	0.950	0.946

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.6	----
As found High point	4920	80.1	800.2	802.4	0.997
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	803.0	Previous response	801.8	*% change	0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4920	80.1	800.2	799.8	1.000
Mid point	4960	40.0	399.6	398.3	1.003
Low point	4980	20.0	199.8	196.8	1.015
As left zero	5000	0.0	0.0	0.5	----
As left span	4920	80.1	800.2	802.1	0.998
Average Correction Factor:					1.006

Notes: No Maintenance done. Zero and span adjusted.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

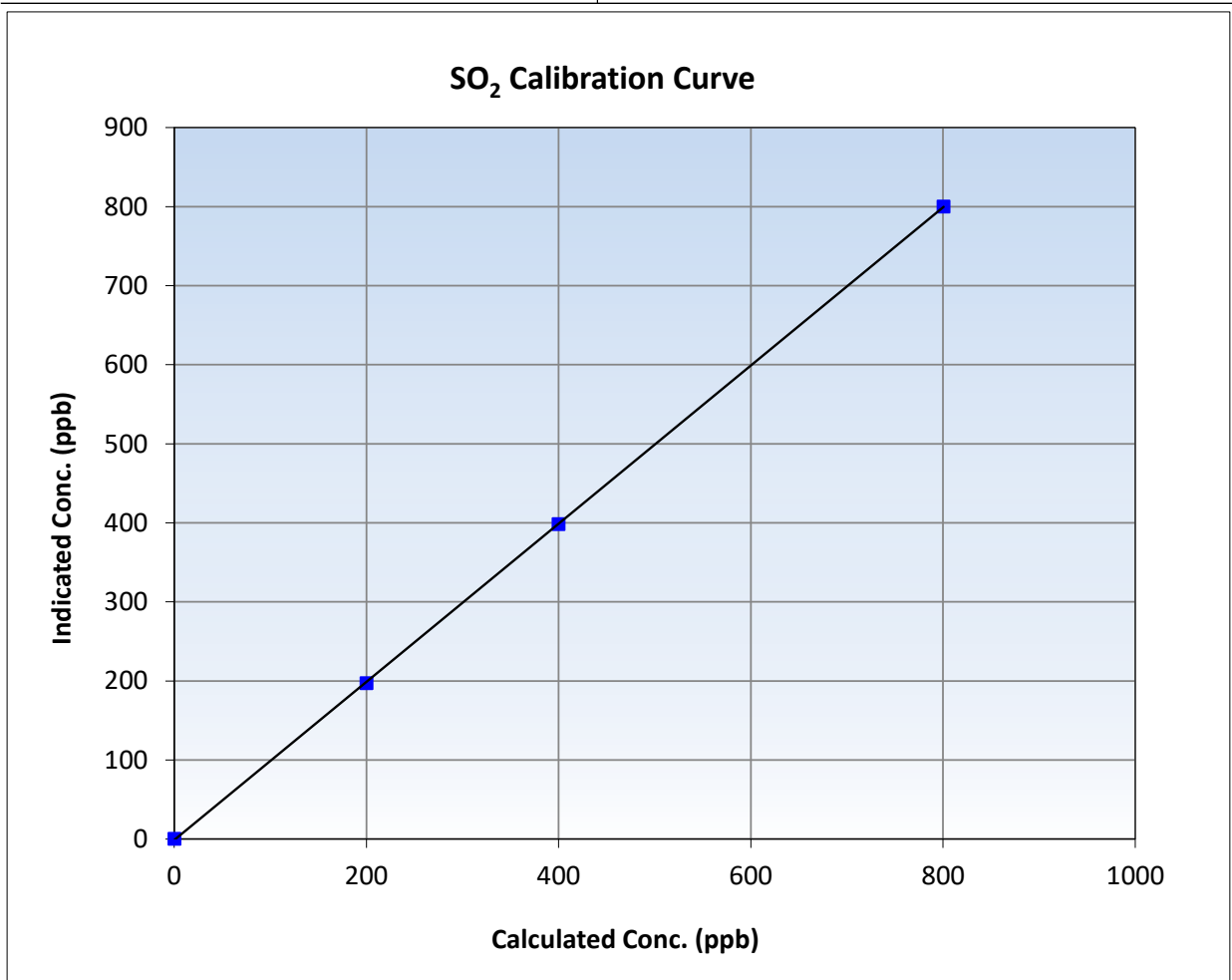
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 13, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	7:00	End Time (MST):	10:01
Analyzer make:	Thermo 43i	Analyzer serial #:	1170050150

### Calibration Data

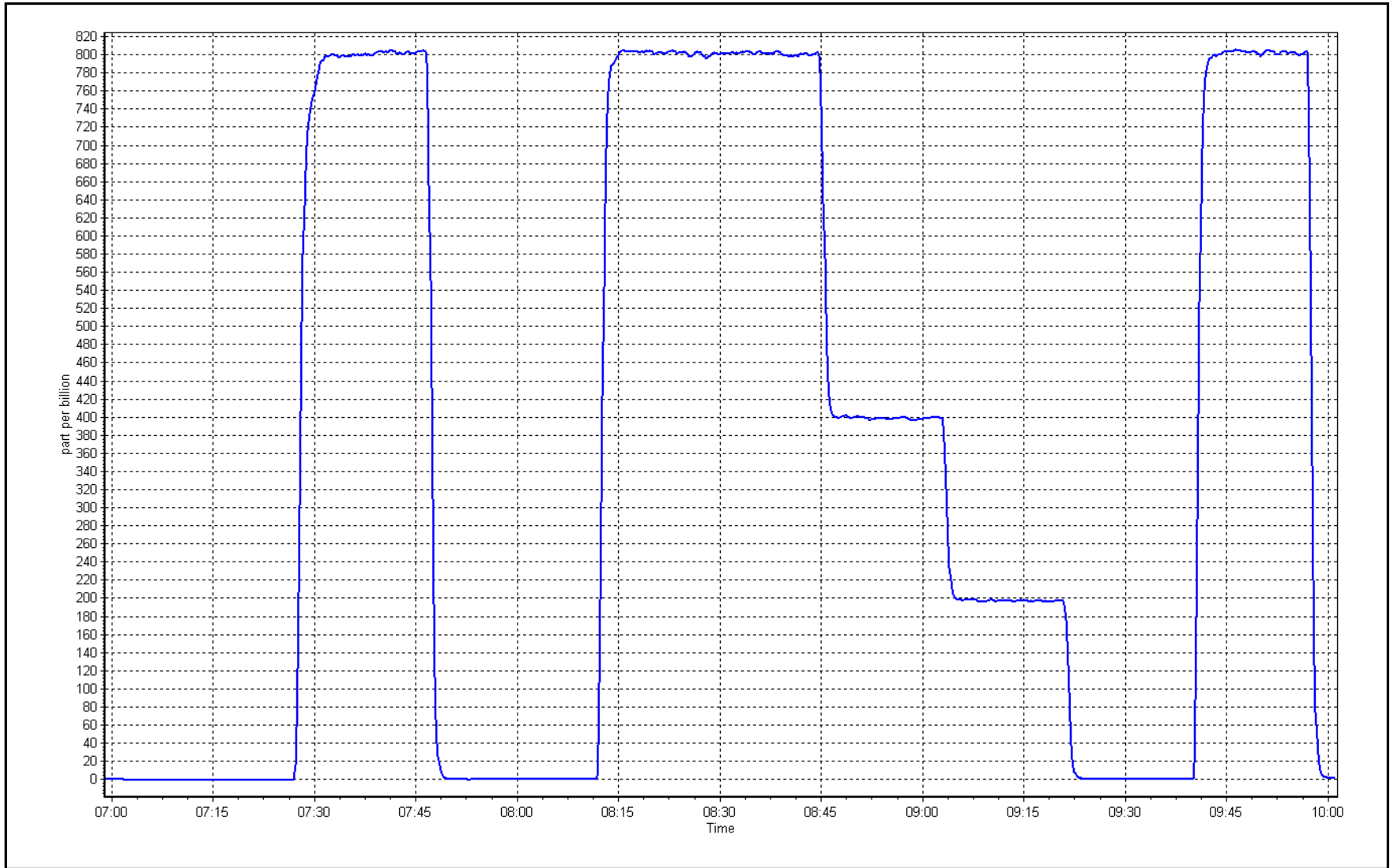
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999984
800.2	799.8	1.0005	Slope	1.000388
399.6	398.3	1.0033	Intercept	-1.260673
199.8	196.8	1.0152		
				<span style="color: red;">≥0.995</span> <span style="color: red;">0.90 - 1.10</span> <span style="color: red;">+/-30</span>



SO2 Calibration Plot

Date: May 6, 2026

Location: Surmont 2





# Wood Buffalo Environmental Association

## H2S Calibration Report

### Station Information

Station Name:	Surmont 2	Station number:	AMS 29
Calibration Date:	May 27, 2026	Last Cal Date:	April 16, 2026
Start time (MST):	6:23	End time (MST):	10:33
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	4.750	ppm	Cal Gas Exp Date:	August 28, 2027
Cal Gas Cylinder #:	CC737848			
Removed Cal Gas Conc:	4.750	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	5472
ZAG Make/Model:	Teledyne API T701		Serial Number:	1402

### Analyzer Information

Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1200326170
Converter make:	Global	Converter serial #:	2022-220
Analyzer Range	0 - 100 ppb	Converter Temp:	325.0 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.993309	0.998881	Backgd or Offset:	1.02	1.00
Calibration intercept:	0.039524	-0.080480	Coeff or Slope:	1.070	1.036

### H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4916	84.2	80.0	83.4	0.958
As found Mid point	4958	42.1	40.0	41.8	0.955
As found Low point	4979	21.1	20.0	20.7	0.961
New cylinder response					
Baseline Corr As found:	83.5	Prev response:	79.49	*% change:	4.8%
Baseline Corr 2nd AF pt:	41.9	AF Slope:	1.044460	AF Intercept:	-0.100502
Baseline Corr 3rd AF pt:	20.8	AF Correlation:	0.999993	* = +/-5% change initiates investigation	

### H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4916	84.2	80.0	79.8	1.002
Mid point	4958	42.1	40.0	39.9	1.002
Low point	4979	21.1	20.0	19.9	1.005
As left zero	5000	0.0	0.0	0.1	----
As left span	4916	84.2	80.0	78.7	1.016
SO2 Scrubber Check	4919	81.3	813.0	0.1	----
Date of last scrubber change:				Ave Corr Factor	1.003
Date of last converter efficiency test:	December 5, 2024			108.1% efficiency	

Notes: Sox scrubber checked after the calibrator zero. Span adjusted.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

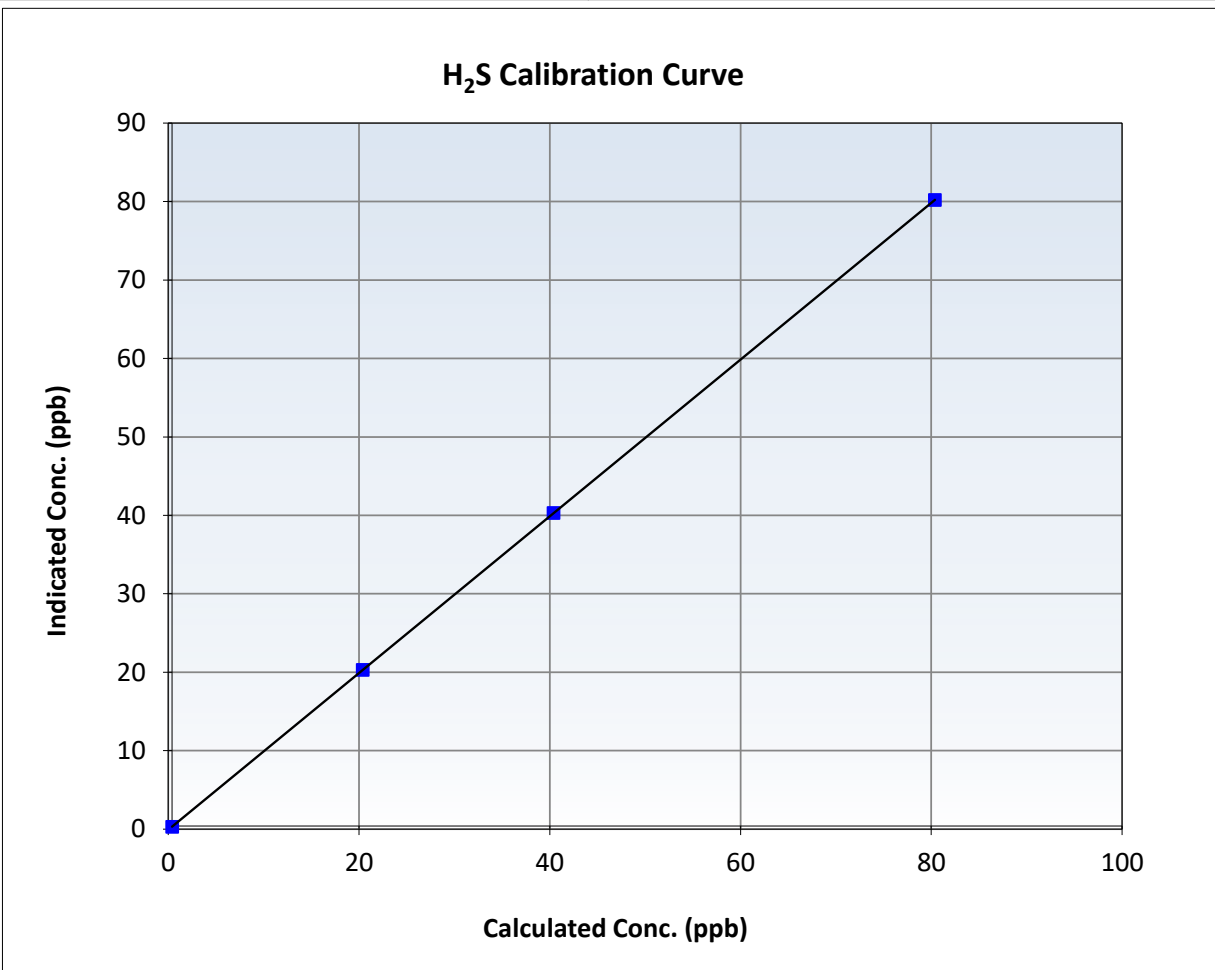
## H2S Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 16, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:23	End Time (MST):	10:33
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1200326170

### Calibration Data

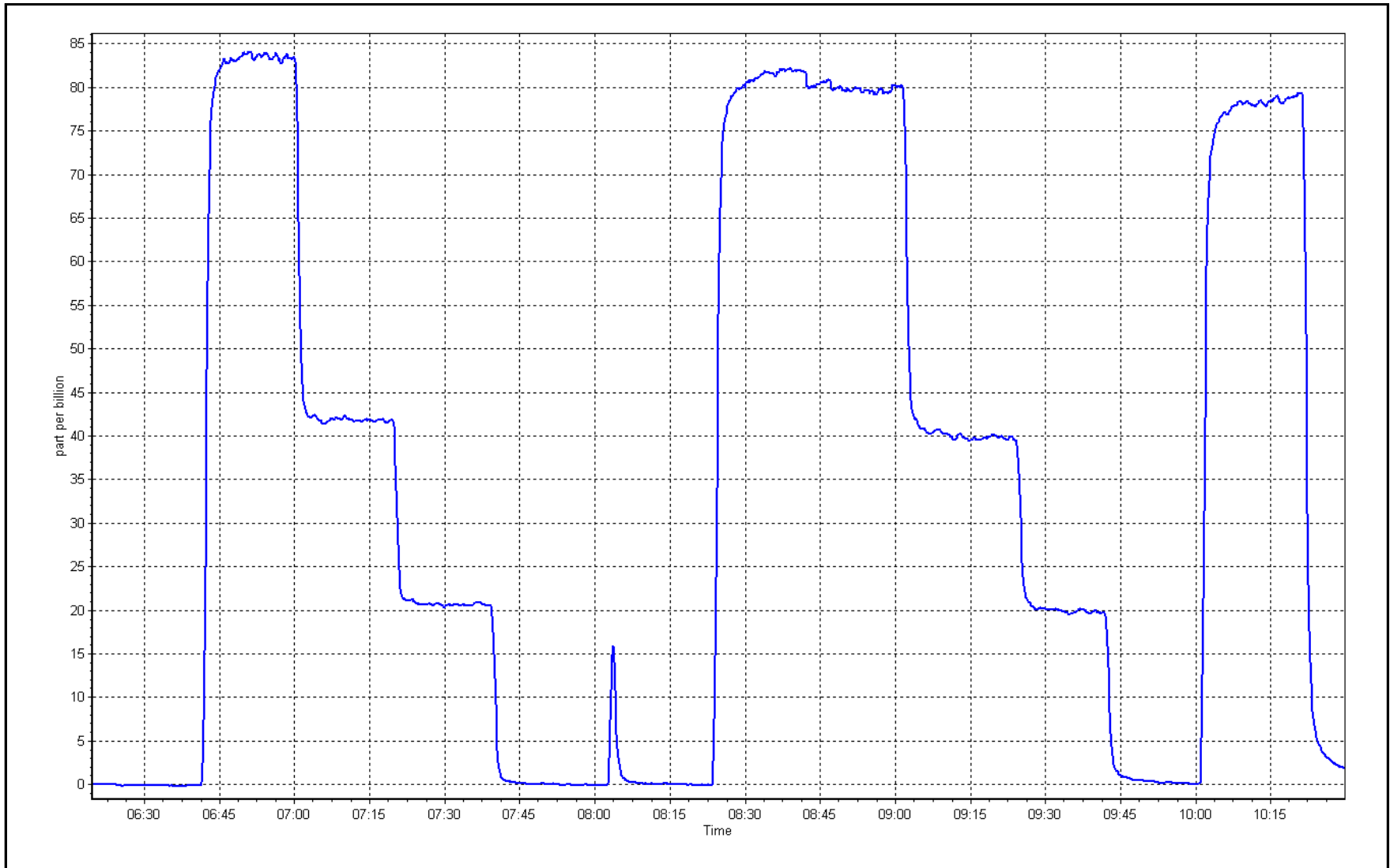
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	1.000000	$\geq 0.995$
80.0	79.8	1.0023	Slope	0.998881	$0.90 - 1.10$
40.0	39.9	1.0024	Intercept	-0.080480	$\pm 3$
20.0	19.9	1.0049			



H2S Calibration Plot

Date: May 27, 2026

Location: Surmont 2







# Wood Buffalo Environmental Association

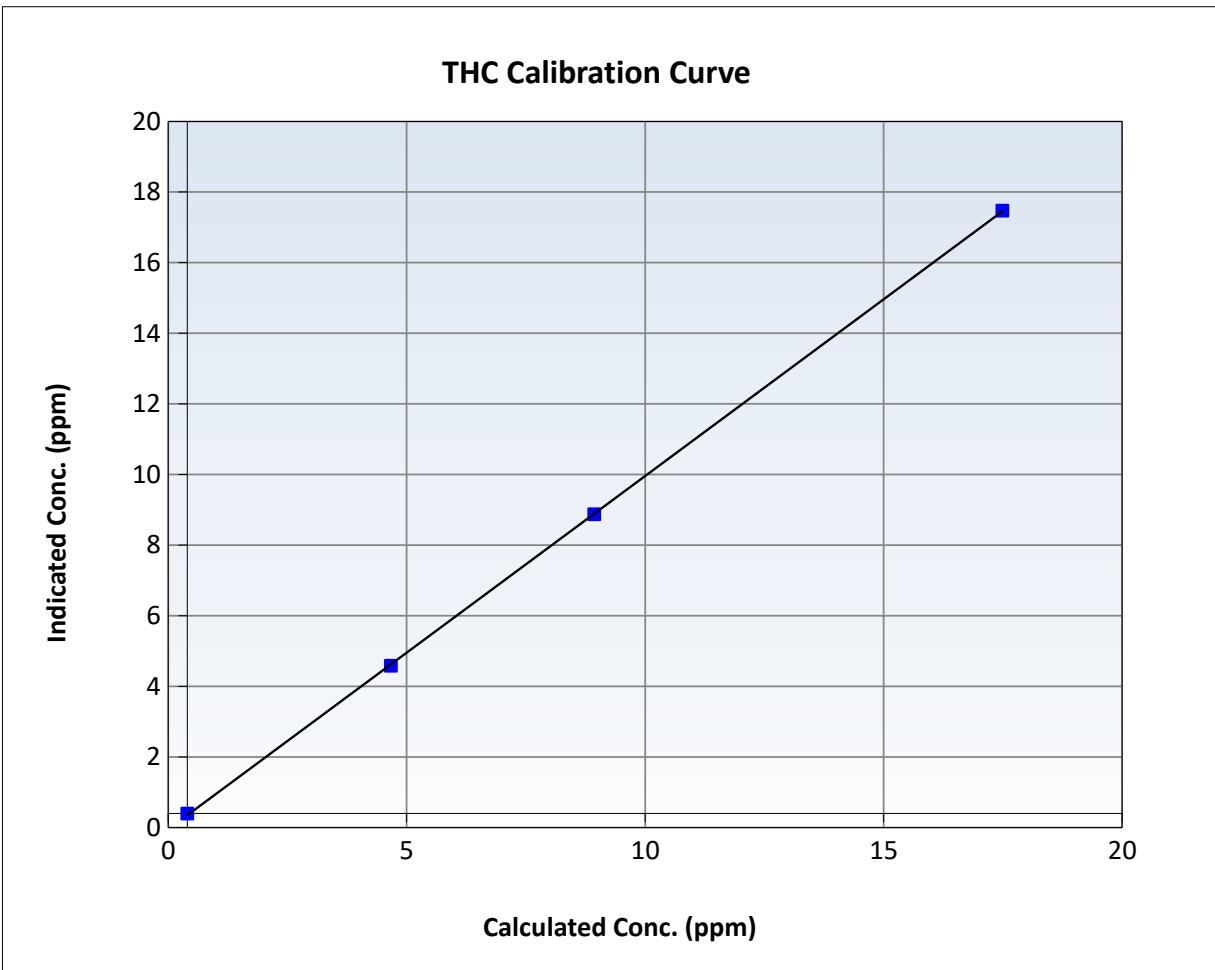
## THC Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 13, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	7:00	End Time (MST):	10:01
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1180540021

### Calibration Data

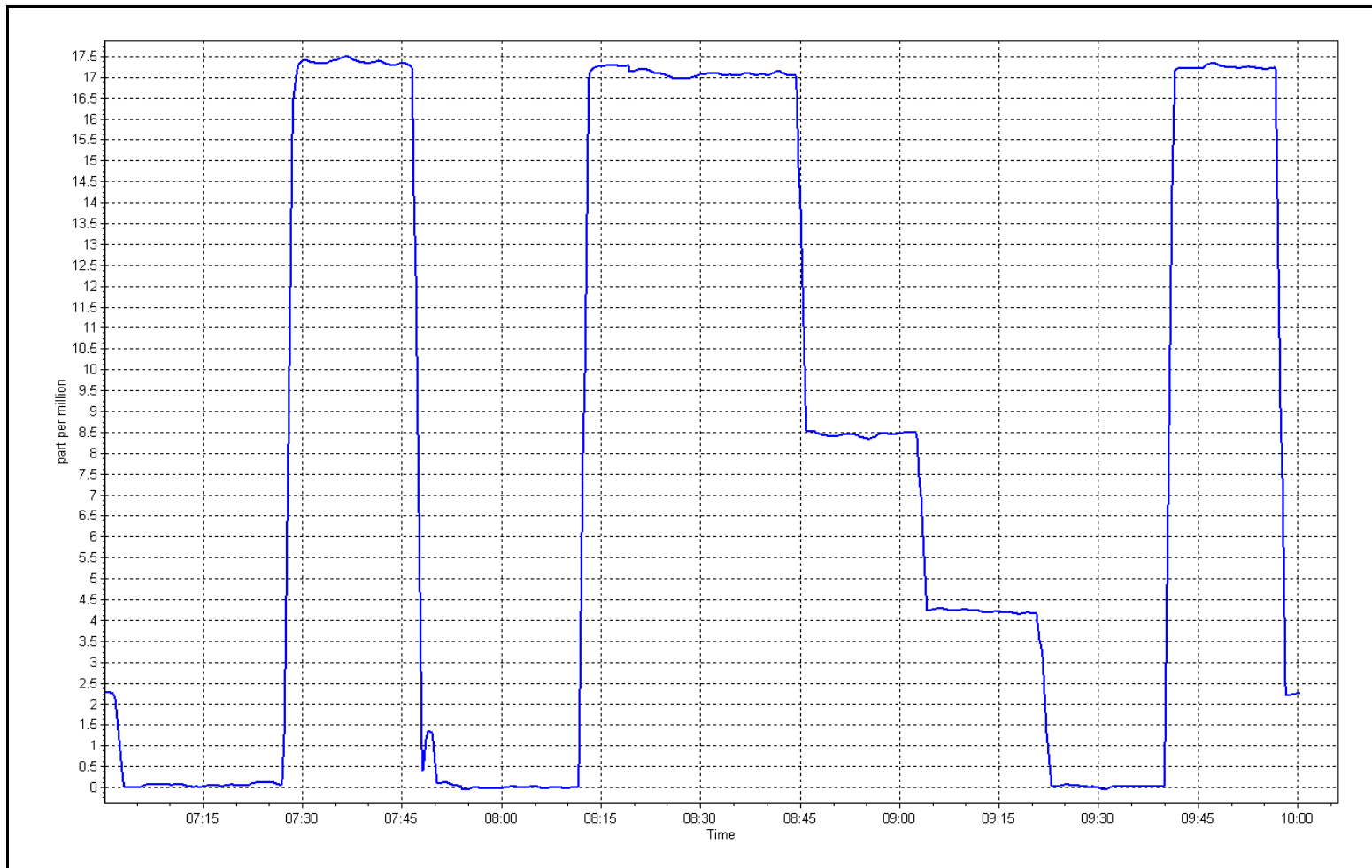
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.01	----	Correlation Coefficient	0.999973	<span style="color: red;">≥0.995</span>
17.09	17.08	1.0010	Slope	1.000785	<span style="color: red;">0.90 - 1.10</span>
8.54	8.48	1.0071	Intercept	-0.049749	<span style="color: red;">+/-1.5</span>
4.27	4.18	1.0217			



THC Calibration Plot

Date: May 6, 2026

Location: Surmont 2





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Surmont 2  
 Station number: AMS 29  
 Calibration Date: May 26, 2026  
 Last Cal Date: April 15, 2026  
 Start time (MST): 6:35  
 End time (MST): 11:00  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC218007  
 NOX Cal Gas Conc: 60.20 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 60.20 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701  
 Cal Gas Expiry Date: January 9, 2032  
 NO Cal Gas Conc: 60.00 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 60.00 ppm  
 NO gas Diff:  
 Serial Number: 5472  
 Serial Number: 1402

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0	0.0	0.0	0.0	0.1	0.1	0.0	----	----
AF High point	4933	66.7	803.1	800.4	2.7	777.3	773.1	4.3	1.0333	1.0355
AF Mid point										
AF Low point										
New cyl resp										

Previous Response NO<sub>x</sub>= 802.5 ppb NO = 800.0 ppb \* = > +/-5% change initiates investigation \*Percent Change NO<sub>x</sub> = -3.3%

Baseline Corr 1st pt NO<sub>x</sub>= 777.2 ppb NO = 773.0 ppb As Found Statistics \*Percent Change NO = -3.5%

Baseline Corr 2nd pt NO<sub>x</sub>= NA ppb NO = NA ppb As found NO<sub>x</sub> r<sup>2</sup>: Nx Sl: Nx Int:

Baseline Corr 3rd pt NO<sub>x</sub>= NA ppb NO = NA ppb As found NO r<sup>2</sup>: NO Sl: NO Int:

As found NO<sub>2</sub> r<sup>2</sup>: NO<sub>2</sub> Sl: NO<sub>2</sub> Int:

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1410661329

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.000593	0.999880
NO <sub>x</sub> Cal Offset:	-1.109281	-0.708956
NO Cal Slope:	1.002657	1.001114
NO Cal Offset:	-2.589349	-2.248887
NO <sub>2</sub> Cal Slope:	1.001572	0.996516
NO <sub>2</sub> Cal Offset:	-0.577035	-0.137152

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.939	0.971	NO bkgnd or offset:	8.6	8.9
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	8.7	9.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	154.0	154.0

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0	0.0	0.0	0.0	0.2	0.2	0.0	----	----
High point	4933	66.7	803.1	800.4	2.7	802.2	799.7	2.4	1.0011	1.0009
Mid point	4967	33.3	400.9	399.6	1.3	401.4	398.4	3.0	0.9988	1.0030
Low point	4983	16.7	201.1	200.4	0.7	198.3	194.7	3.6	1.0140	1.0293
As left zero	5000	0	0.0	0.0	0.0	0.2	0.2	0.0	----	----
As left span	4933	66.7	803.1	436.4	366.7	796.7	436.4	360.3	1.0081	1.0000
Average Correction Factor									1.0046	1.0111

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.0	----	----
High GPT point	794.0	436.2	360.5	359.1	1.0038	99.6%
Mid GPT point	794.0	626.2	170.5	169.8	1.0039	99.6%
Low GPT point	794.0	708.9	87.8	87.1	1.0077	99.2%
Average Correction Factor					1.0051	99.5%

Notes:

No maintenance done. Span adjusted.

Calibration Performed By:

Melissa Lemay



# Wood Buffalo Environmental Association

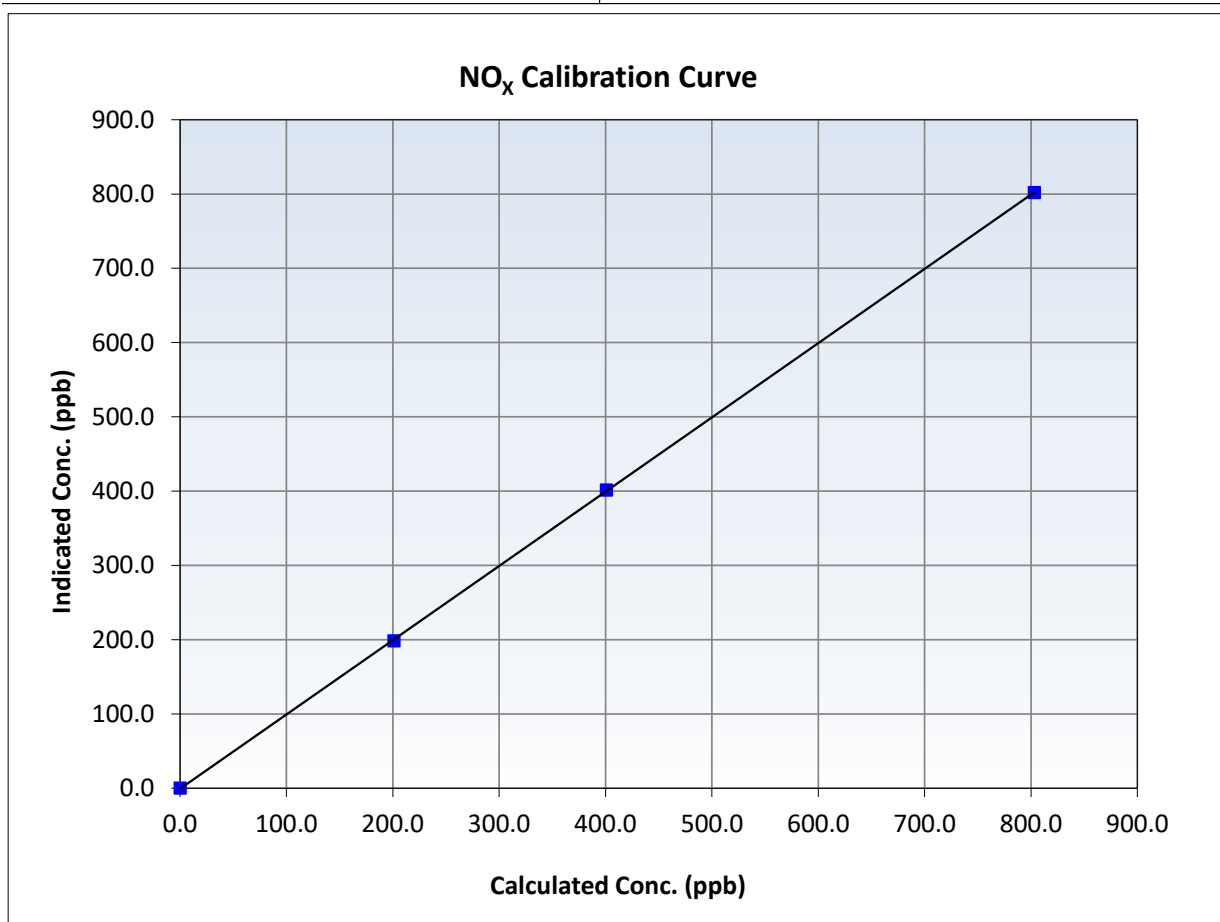
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 15, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:35	End Time (MST):	11:00
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661329

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999981	≥0.995
803.1	802.2	1.0011	Slope	0.999880	0.90 - 1.10
400.9	401.4	0.9988	Intercept	-0.708956	+/-20
201.1	198.3	1.0140			





# Wood Buffalo Environmental Association

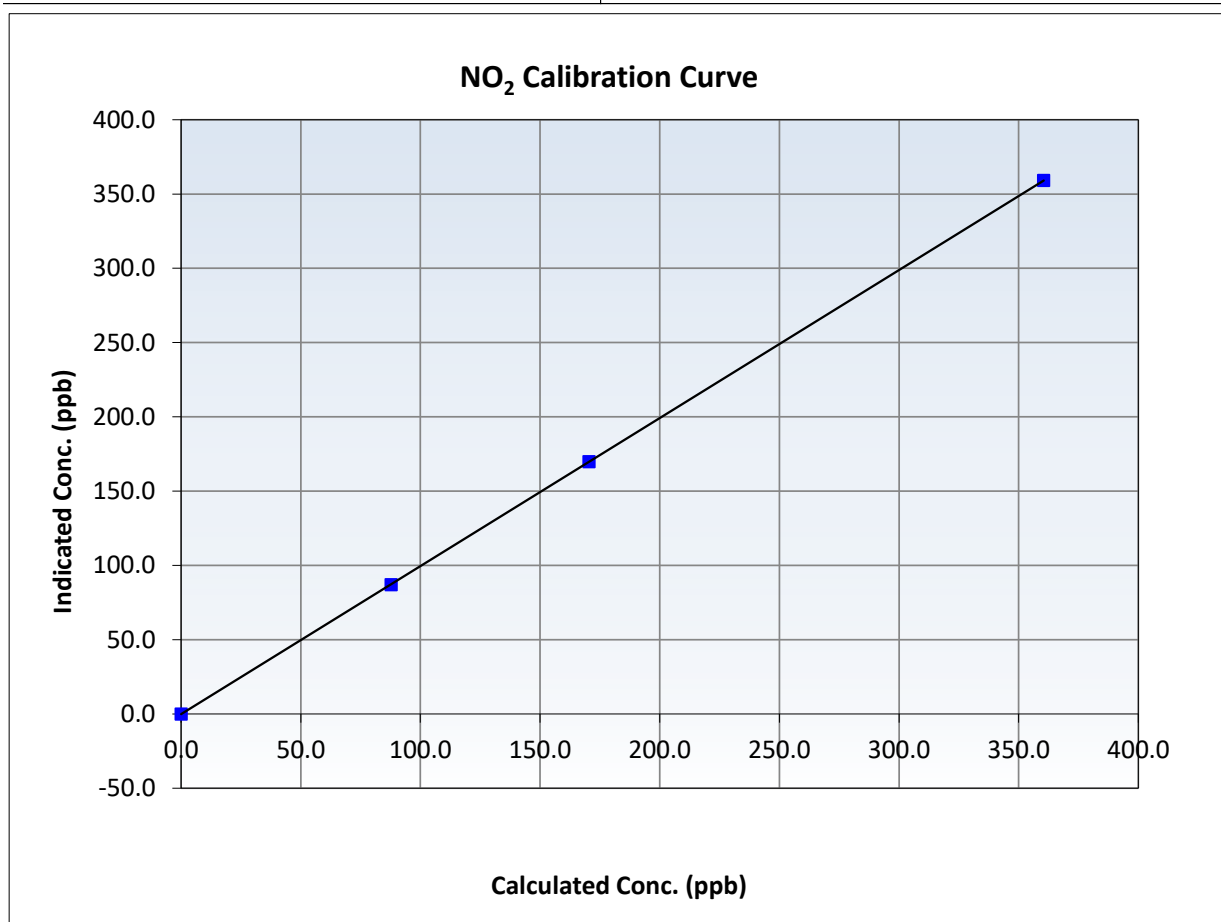
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 15, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:35	End Time (MST):	11:00
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661329

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999999	≥0.995
360.5	359.1	1.0038	Slope	0.996516	0.90 - 1.10
170.5	169.8	1.0039	Intercept	-0.137152	+/-20
87.8	87.1	1.0077			





# Wood Buffalo Environmental Association

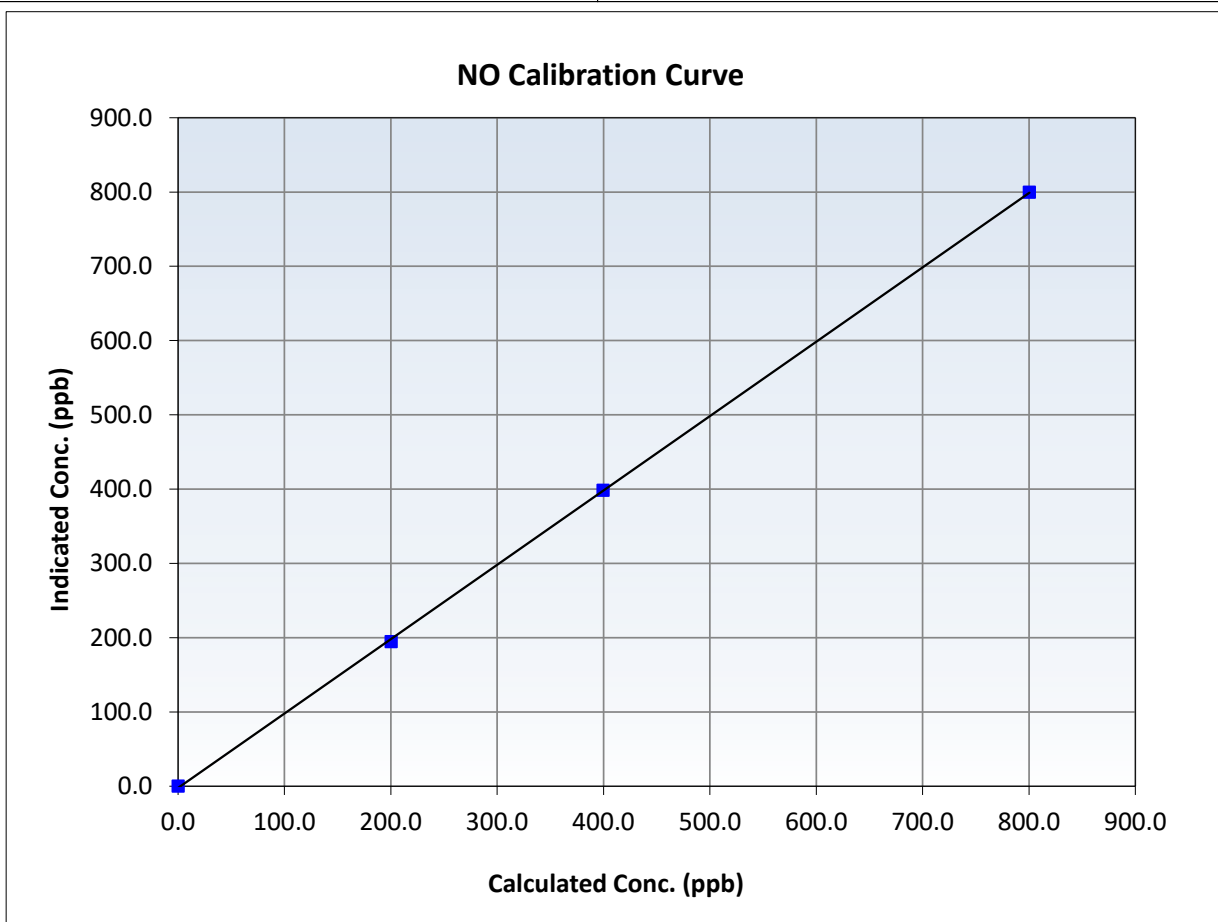
## NO Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 15, 2026
Station Name:	Surmont 2	Station Number:	AMS 29
Start Time (MST):	6:35	End Time (MST):	11:00
Analyzer make:	Thermo 42i	Analyzer serial #:	1410661329

### Calibration Data

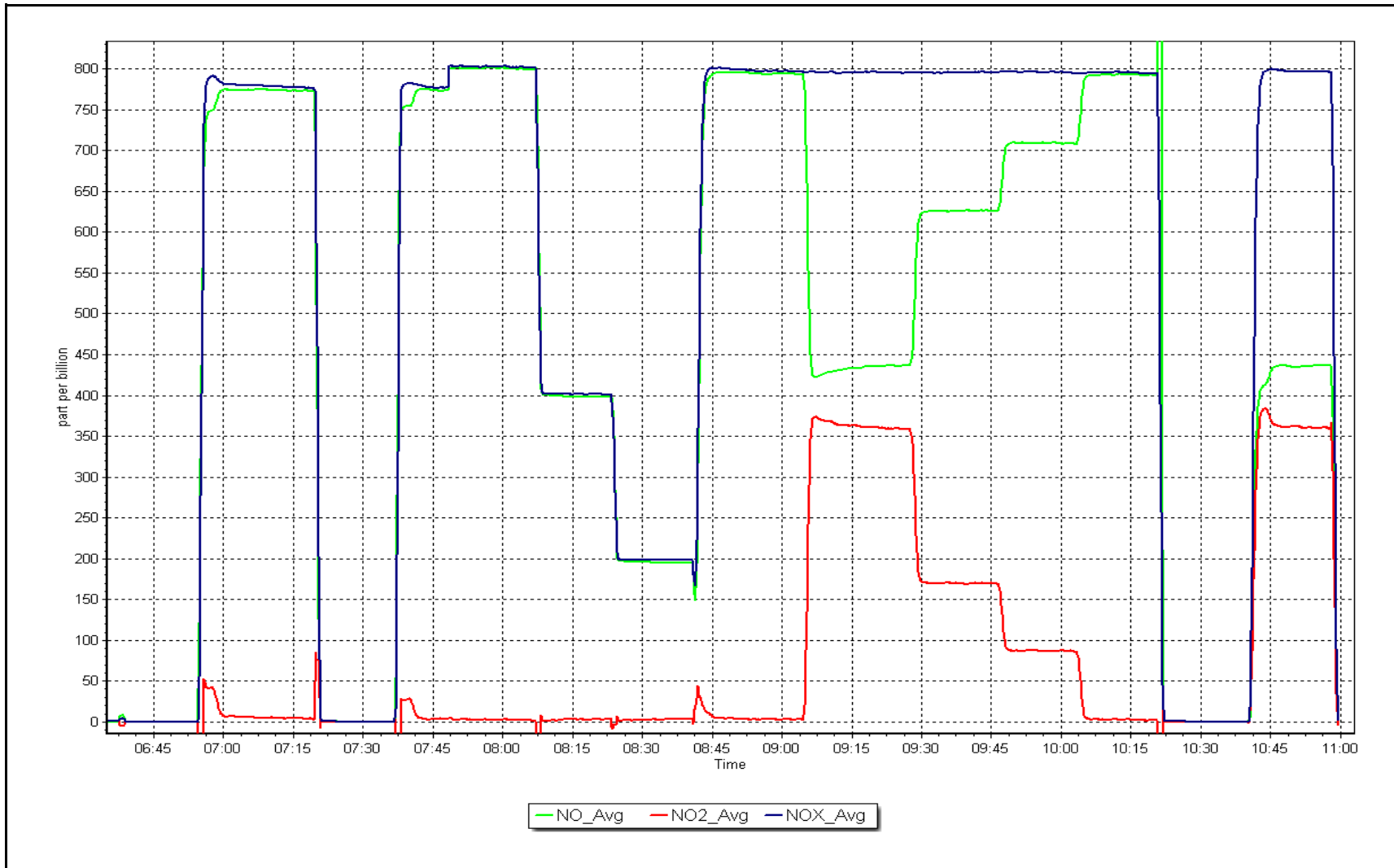
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999942	≥0.995
800.4	799.7	1.0009	Slope	1.001114	0.90 - 1.10
399.6	398.4	1.0030	Intercept	-2.248887	+/-20
200.4	194.7	1.0293			



NO<sub>x</sub> Calibration Plot

Date: May 26, 2026

Location: Surmont 2





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Surmont 2 Station number: AMS 29  
 Calibration Date: May 5, 2026 Last Cal Date: April 16, 2026  
 Start time (MST): 9:45 End time (MST): 10:52

Analyzer Make: API T640 S/N: 2236  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388753  
 Temp/RH standard: Alicat FP-25BT S/N: 388753

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	4.6	5	4.6	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	718.4	718.00	718.4	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.02	5.030	5.02	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	41	----	41	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	7.3	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.9 Expiry Date: July 16, 2026  
 Lot No.: 100128-050-050

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	11	11.0	11.0	<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: May 5, 2026  
 Date Disposable Filter Changed: May 5, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ 0.0 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: May 5, 2026  
 Date RH/T Sensor Cleaned: May 5, 2026

Notes: leak check, PMT and Flow done before and after optical chamber cleaning. Filter changed out. No adjustments done.

Calibration by: Melissa Lemay



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS30 ELLS RIVER MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Ells River	Station number: AMS 30
Calibration Date:	May 7, 2026	Last Cal Date: April 9, 2026
Start time (MST):	9:07	End time (MST): 1:06
Reason:	Routine	

### Calibration Standards

Cal Gas Concentration:	48.75	ppm	Cal Gas Exp Date: March 10, 2031
Cal Gas Cylinder #:	CC350110		
Removed Cal Gas Conc:	48.75	ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #:	NA		Diff between cyl:
Calibrator Model:	API T700		Serial Number: 5707
Zero Air Gen Model:	API T701H		Serial Number: 358

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number: 1008841397
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001515	1.007027	Backgd or Offset:	10.8	10.8
Calibration intercept:	-0.856273	-1.035704	Coeff or Slope:	1.013	1.013

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4918	82.1	800.5	802.8	0.997
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	803.1	Previous response	800.8	*% change	0.3%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.3	----
High point	4918	82.1	800.5	805.9	0.993
Mid point	4959	41.0	399.8	400.3	0.999
Low point	4979	20.5	199.9	199.3	1.003
As left zero	5000	0.0	0.0	-0.1	----
As left span	4918	82.1	800.5	807.9	0.991
Average Correction Factor:					0.998

Notes: Sample inlet filter was changed after as founds. No adjustments made.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

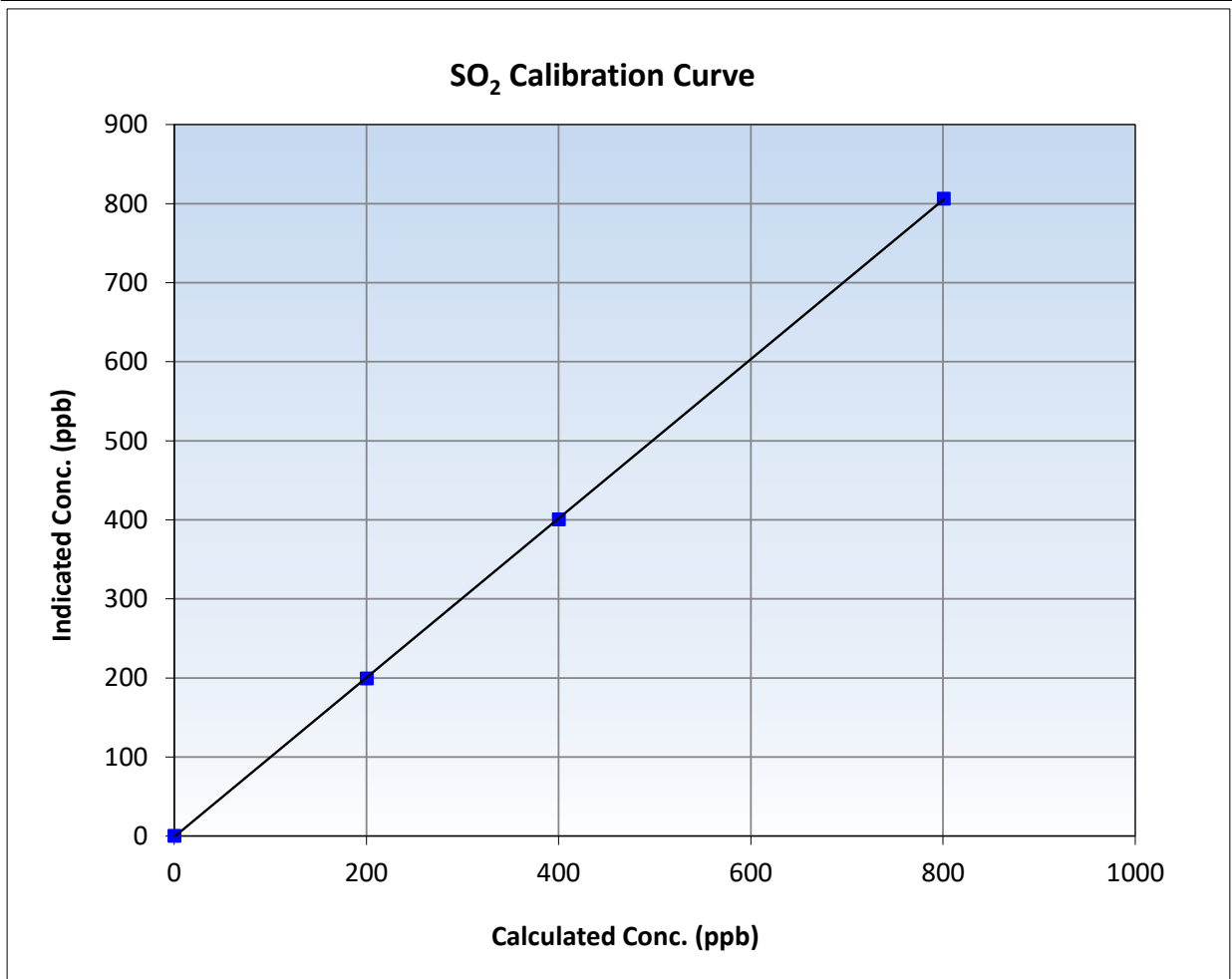
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 9, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	9:07	End Time (MST):	1:06
Analyzer make:	Thermo 43i	Analyzer serial #:	1008841397

### Calibration Data

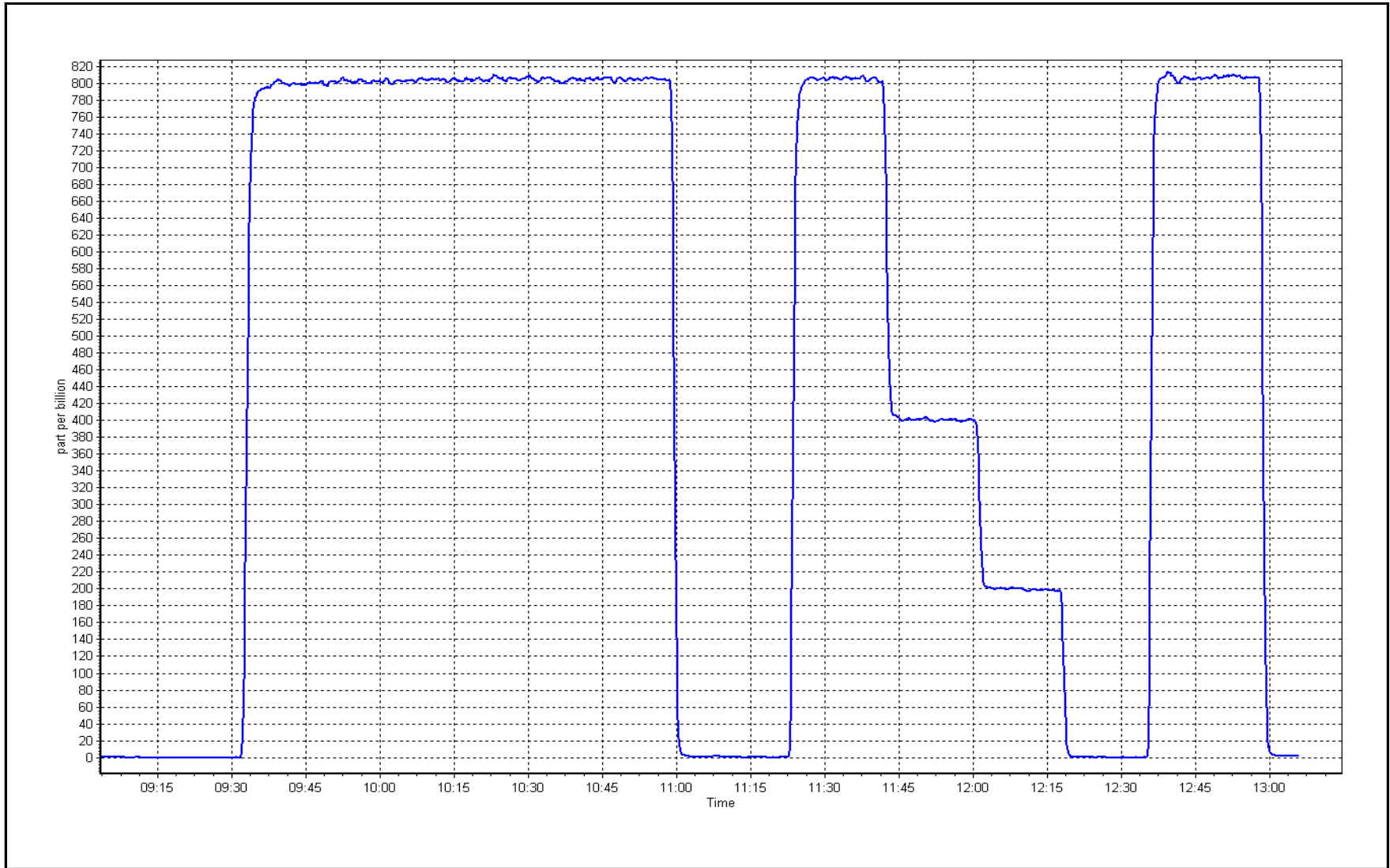
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.3	----	Correlation Coefficient	0.999986	<b>≥0.995</b>
800.5	805.9	0.9932	Slope	1.007027	<b>0.90 - 1.10</b>
399.8	400.3	0.9986	Intercept	-1.035704	<b>+/-30</b>
199.9	199.3	1.0030			



SO2 Calibration Plot

Date: May 7, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## TRS Calibration Report

### Station Information

Station Name: Ells River	Station number: AMS 30
Calibration Date: May 13, 2026	Last Cal Date: April 13, 2026
Start time (MST): 9:10	End time (MST): 13:08
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 4.99 ppm	Cal Gas Exp Date: November 15, 2026
Cal Gas Cylinder #: CC505806	
Removed Cal Gas Conc: 4.99 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #: NA	Diff between cyl:
Calibrator Make/Model: API T700	Serial Number: 5707
ZAG Make/Model: API 701H	Serial Number: 358

### Analyzer Information

Analyzer make: Thermo 43i-LTE	Analyzer serial #: 1170050152
Converter make: CDN- 101	Converter serial #: 632
Analyzer Range: 0 - 100 ppb	Converter Temp: 800 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.008328	1.005475	Backgd or Offset:	4.03	3.98
Calibration intercept:	-0.020362	-0.220486	Coeff or Slope:	1.286	1.264

### TRS As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4920	80.2	80.0	81.9	0.977
As found Mid point	4960	40.1	40.0	41.1	0.974
As found Low point	4980	20.0	20.0	20.2	0.988
New cylinder response					
Baseline Corr As found:	81.9	Prev response:	80.68	*% change:	1.5%
Baseline Corr 2nd AF pt:	41.1	AF Slope:	1.024463	AF Intercept:	-0.060137
Baseline Corr 3rd AF pt:	20.2	AF Correlation:	0.999982	<i>* = &gt; +/-5% change initiates investigation</i>	

### TRS Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4920	80.2	80.0	80.3	0.997
Mid point	4960	40.1	40.0	40.0	1.000
Low point	4980	20.0	20.0	19.7	1.013
As left zero	5000	0.0	0.0	-0.1	----
As left span	4920	80.2	80.0	81.1	0.987
SO2 Scrubber Check	4918	82.0	820.0	0.1	----
Date of last scrubber change:	16-Dec-25			Ave Corr Factor	1.003
Date of last converter efficiency test:					

Notes: Inlet filter changed after as founds, span adjusted.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

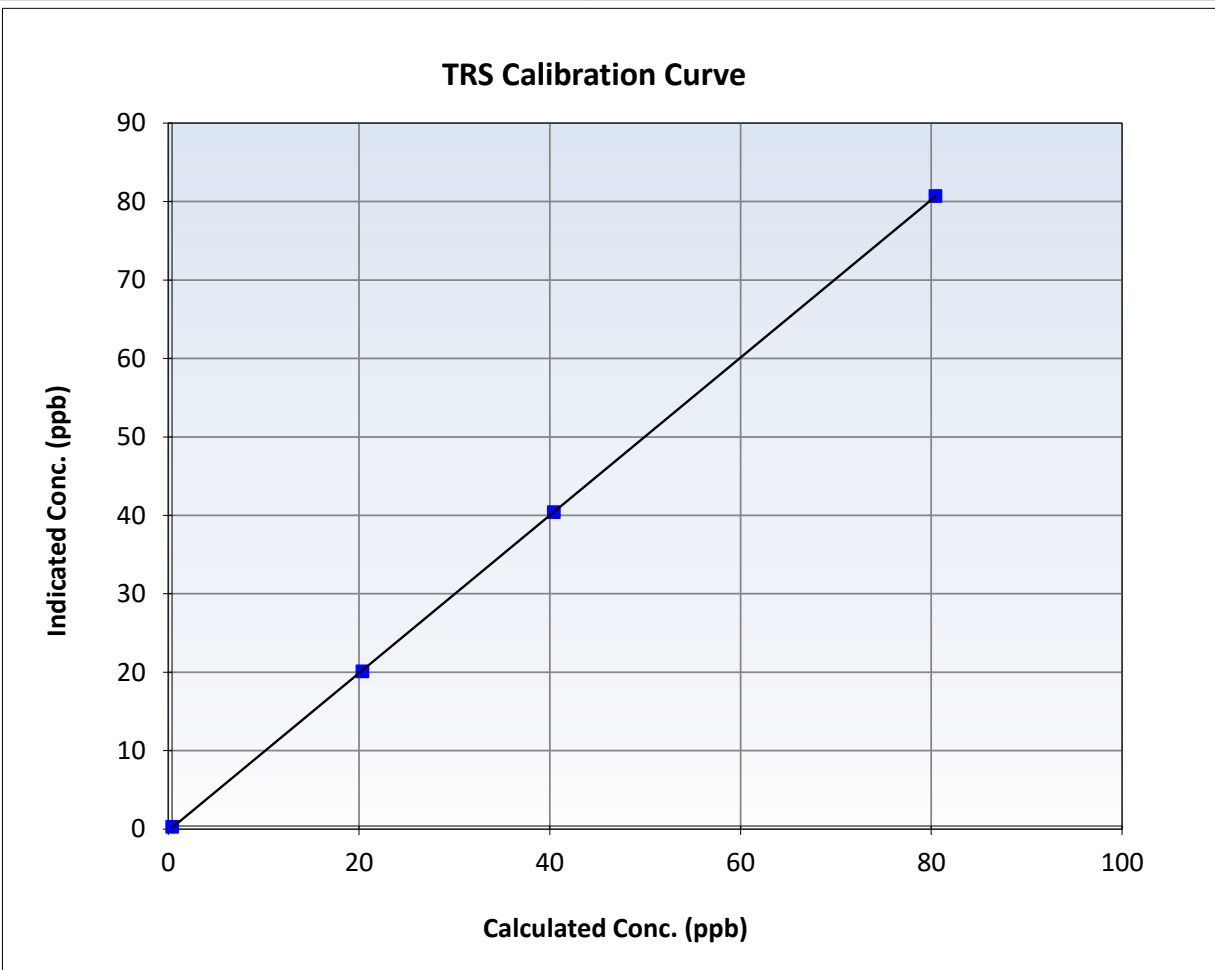
## TRS Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 13, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	9:10	End Time (MST):	13:08
Analyzer make:	Thermo 43i-LTE	Analyzer serial #:	1170050152

### Calibration Data

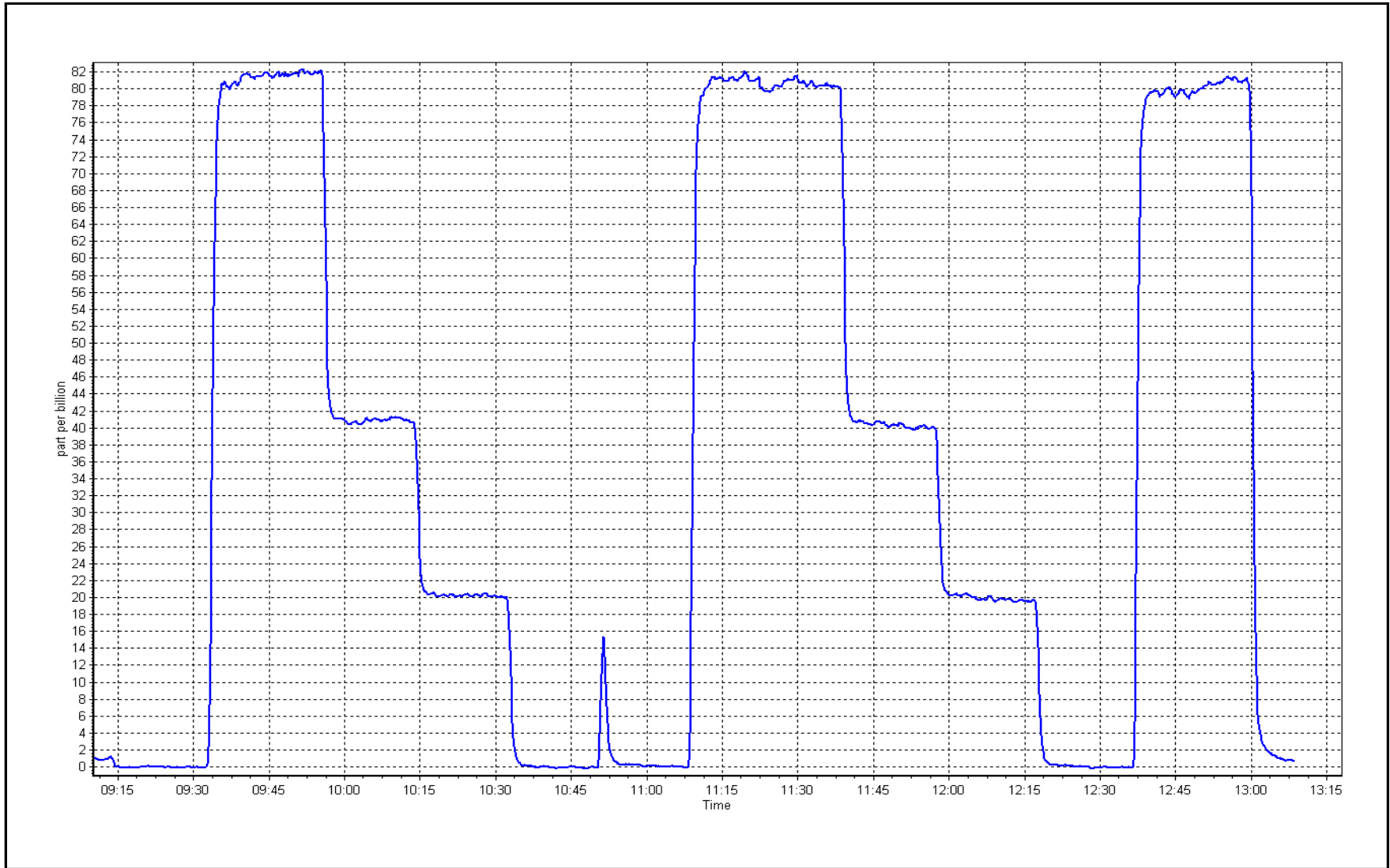
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999989	$\geq 0.995$
80.0	80.3	0.9967	Slope	1.005475	$0.90 - 1.10$
40.0	40.0	1.0005	Intercept	-0.220486	$\pm 3$
20.0	19.7	1.0132			



TRS Calibration Plot

Date: May 13, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Ells River	Station number:	AMS 30
Calibration Date:	May 7, 2026	Last Cal Date:	April 9, 2026
Start time (MST):	9:07	End time (MST):	11:22
Reason:	As Found		

### Calibration Standards

Gas Cert Reference:	CC350110	Cal Gas Expiry Date:	Monday, March 10, 2031
CH4 Cal Gas Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
C3H8 Cal Gas Conc.	207.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
Removed C3H8 Conc.	207.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5707
Zero Air Gen model:	API T701H	Serial Number:	358

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320037
THC Range: 0 - 20 ppm	NMHC/CH4 Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	4.34E-04	4.34E-04	NMHC SP Ratio:	6.72E-05	6.72E-05
CH4 Retention time:	16.4	16.4	NMHC Peak Area:	139380	139380
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	17.51	17.36	1.009
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.36	Prev response	17.39	*% change	-0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

Notes: As founds performed. Readings unstable after H2 change. Column conditioning started, calibration stopped.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	9.36	9.19	1.018
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.19	Prev response	9.31	<b>*% change</b>	-1.3%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		<b>* = &gt; +/-5% change initiates investigation</b>	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	8.15	8.17	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.17	Prev response	8.08	<b>*% change</b>	1.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		<b>* = &gt; +/-5% change initiates investigation</b>	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero					
As left span					

Average Correction Factor

### Calibration Statistics

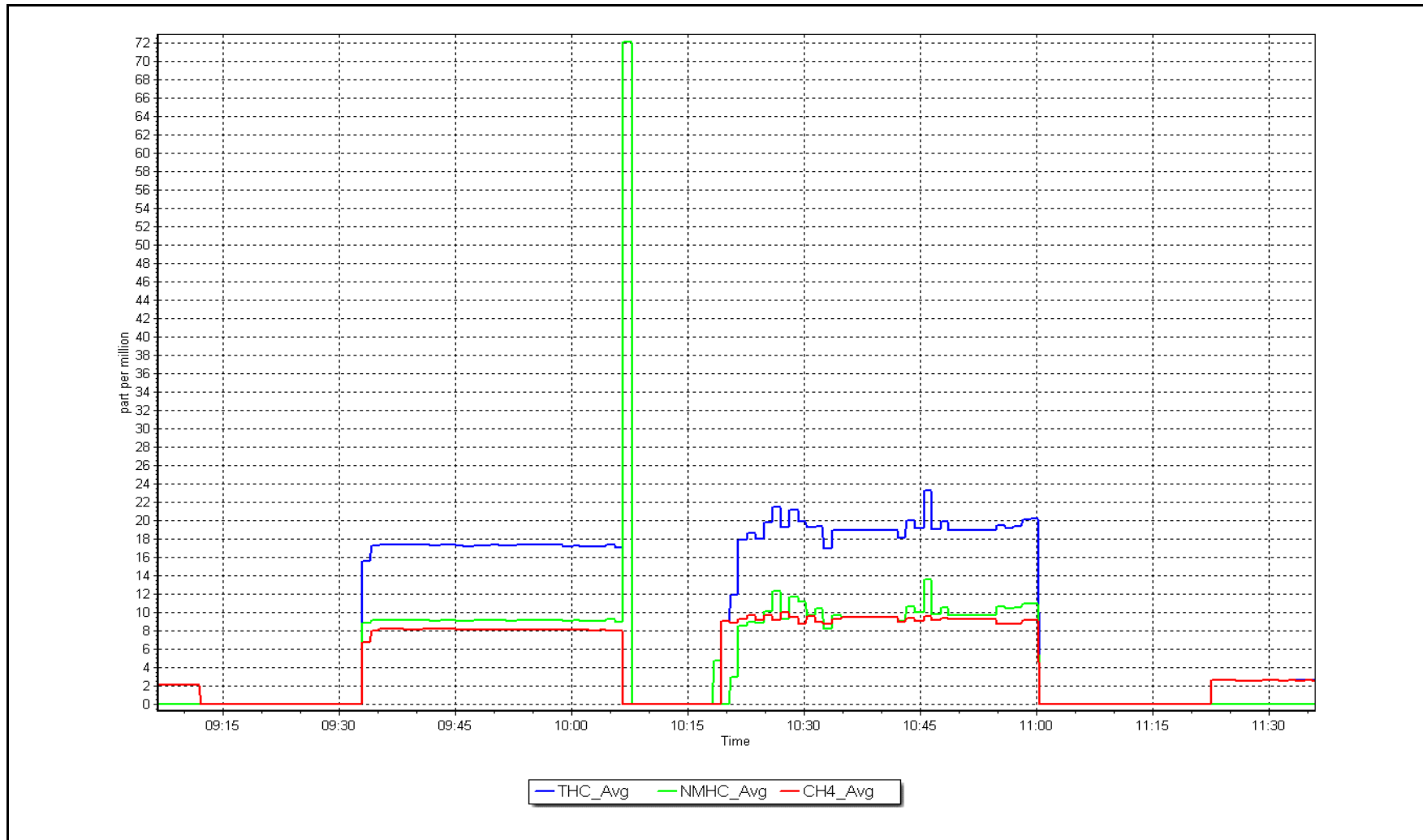
	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.994461	
THC Cal Offset:	-0.024611	
CH <sub>4</sub> Cal Slope:	0.994336	
CH <sub>4</sub> Cal Offset:	-0.029152	
NMHC Cal Slope:	0.994423	
NMHC Cal Offset:	0.005141	

Calibration Performed By: Jason Brooks

NMHC Calibration Plot

Date: May 7, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Ells River	Station number:	AMS 30
Calibration Date:	May 8, 2026	Last Cal Date:	May 7, 2026
Start time (MST):	8:36	End time (MST):	11:05
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	CC350110	Cal Gas Expiry Date:	Monday, March 10, 2031
CH4 Cal Gas Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
C3H8 Cal Gas Conc.	207.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
Removed C3H8 Conc.	207.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5707
Zero Air Gen model:	API T701H	Serial Number:	358

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320037
THC Range: 0 - 20 ppm	NMHC/CH4 Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	4.34E-04	4.04E-04	NMHC SP Ratio:	6.72E-05	6.13E-05
CH4 Retention time:	16.4	16.4	NMHC Peak Area:	139380	152588
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero					
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	17.51	17.36	1.008
Mid point	4959	41.0	8.74	8.65	1.011
Low point	4979	20.5	4.37	4.40	0.995
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	17.51	17.26	1.014
Average Correction Factor					1.005

Notes: started at calibrator zero due to as founds done previously, inlet filter changed. Span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero					Limit = 0.90-1.10
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	9.36	9.25	1.012
Mid point	4959	41.0	4.67	4.62	1.012
Low point	4979	20.5	2.34	2.36	0.989
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	9.35	9.13	1.025
Average Correction Factor					1.004

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero					Limit = 0.90-1.10
As found High point					
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	NA	Prev response	NA	*% change	NA
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.15	8.12	1.005
Mid point	4959	41.0	4.07	4.04	1.009
Low point	4979	20.5	2.04	2.03	1.002
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	8.15	8.13	1.003
Average Correction Factor					1.005

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.994461	0.990335
THC Cal Offset:	-0.024611	0.019979
CH <sub>4</sub> Cal Slope:	0.994336	0.995020
CH <sub>4</sub> Cal Offset:	-0.029152	-0.001342
NMHC Cal Slope:	0.994423	0.986350
NMHC Cal Offset:	0.005141	0.020920

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

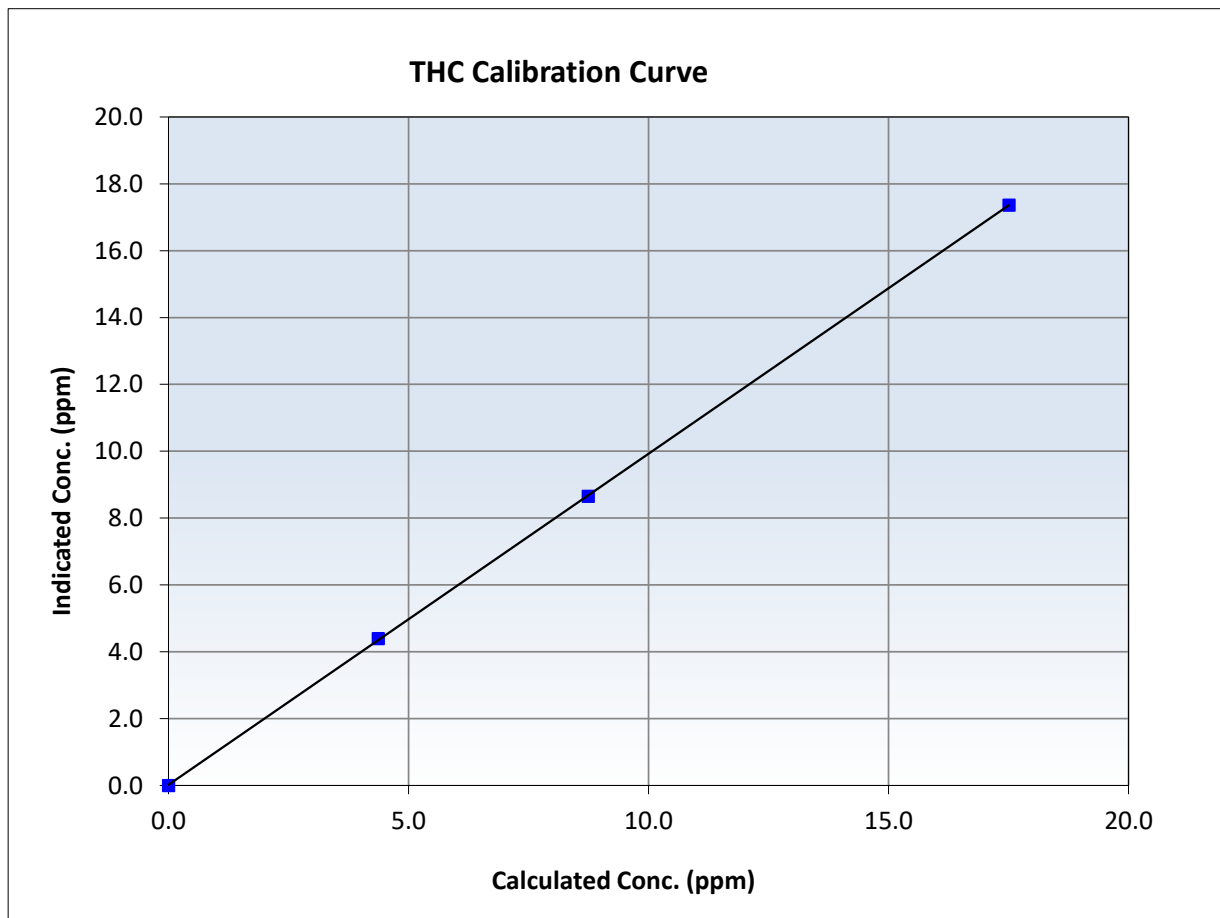
## THC Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	May 7, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:36	End Time (MST):	11:05
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999981	<i>≥0.995</i>
17.51	17.36	1.0085	Slope	0.990335	<i>0.90 - 1.10</i>
8.74	8.65	1.0106	Intercept	0.019979	<i>+/-0.5</i>
4.37	4.40	0.9949			





# Wood Buffalo Environmental Association

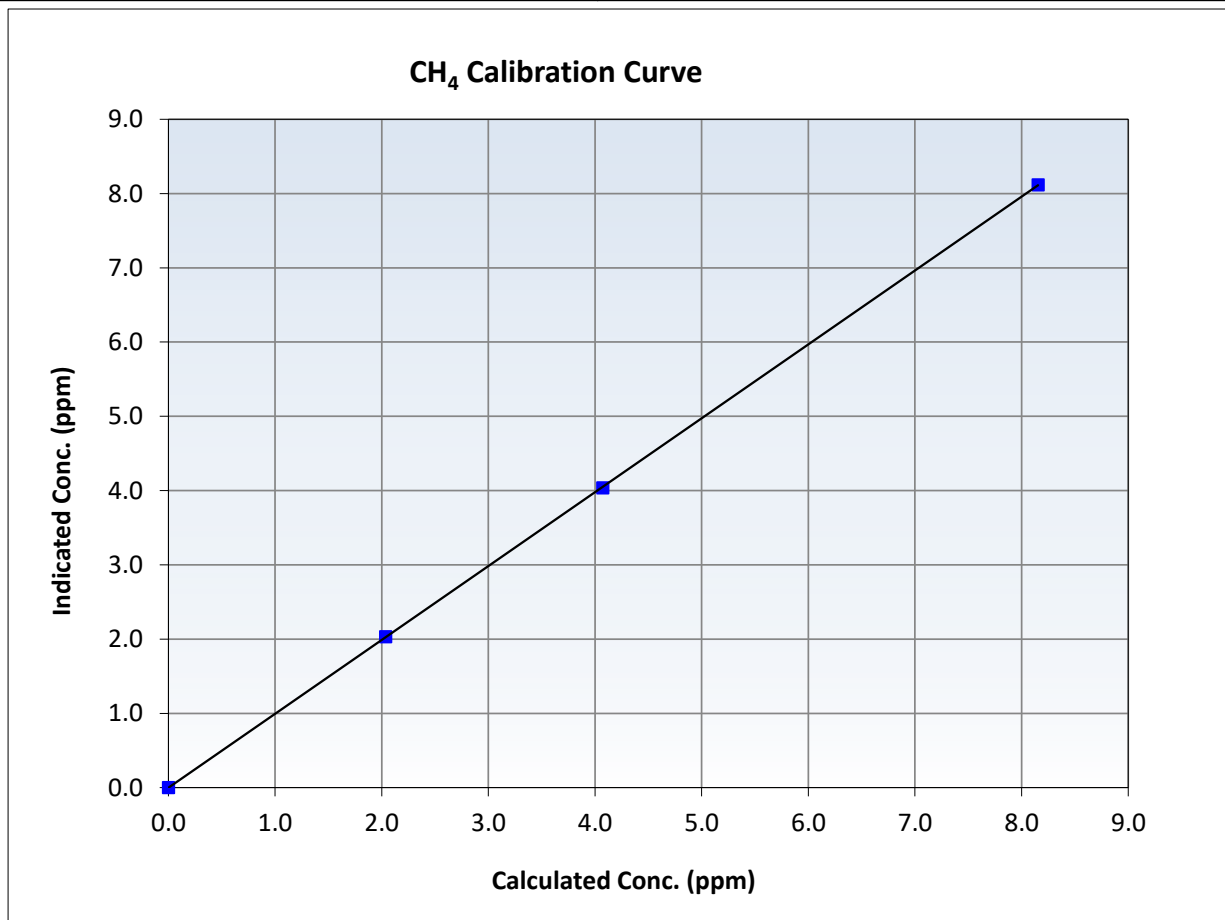
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	May 7, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:36	End Time (MST):	11:05
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999993	<i>≥0.995</i>
8.15	8.12	1.0046	Slope	0.995020	<i>0.90 - 1.10</i>
4.07	4.04	1.0087	Intercept	-0.001342	<i>+/-0.5</i>
2.04	2.03	1.0021			





# Wood Buffalo Environmental Association

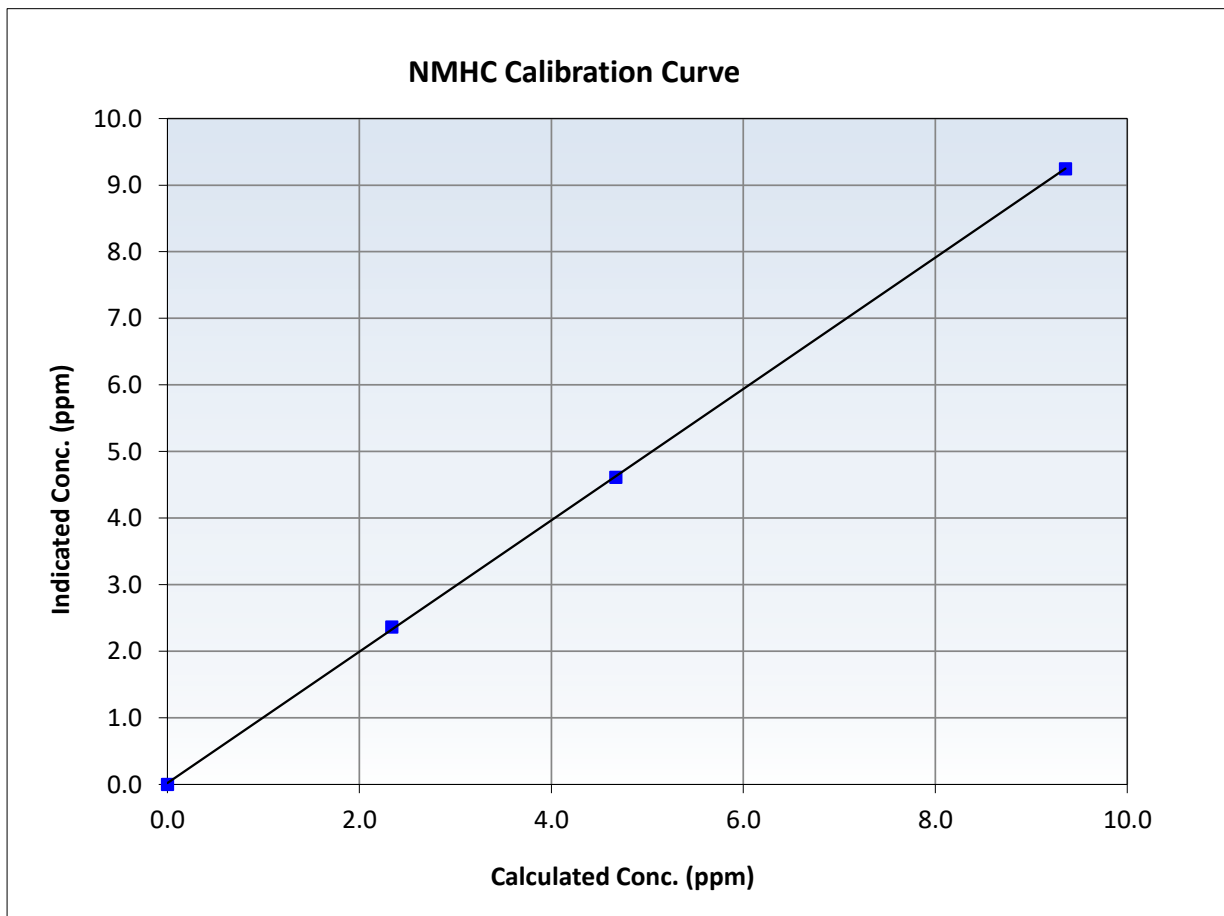
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 8, 2026	Previous Calibration:	May 7, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:36	End Time (MST):	11:05
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

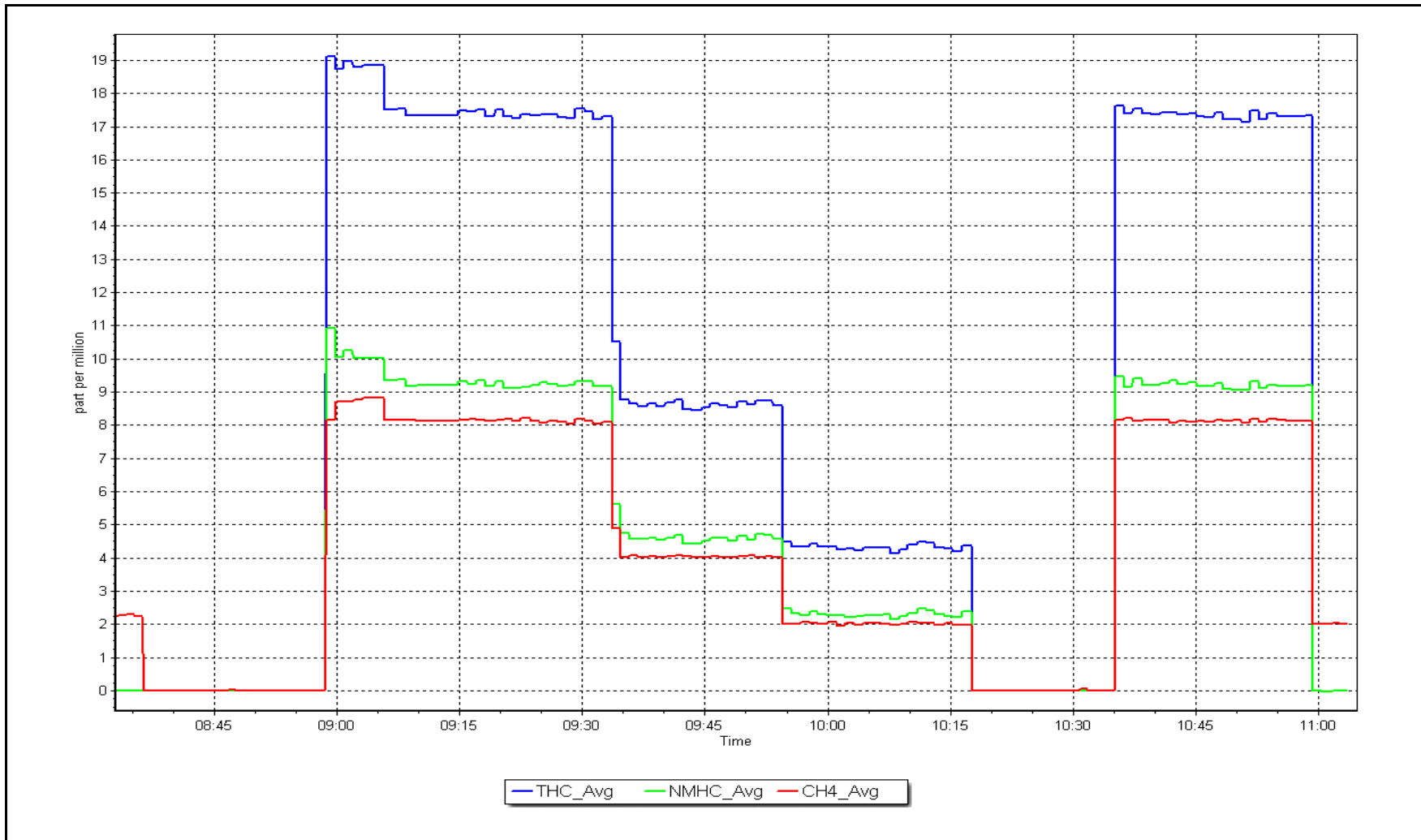
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999956	<i>≥0.995</i>
9.36	9.25	1.0118	Slope	0.986350	<i>0.90 - 1.10</i>
4.67	4.62	1.0124	Intercept	0.020920	<i>+/-0.5</i>
2.34	2.36	0.9887			



NMHC Calibration Plot

Date: May 8, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Ells River	Station number:	AMS 30
Calibration Date:	May 12, 2026	Last Cal Date:	May 8, 2026
Start time (MST):	8:47	End time (MST):	14:26
Reason:	Maintenance		

### Calibration Standards

Gas Cert Reference:	CC350110	Cal Gas Expiry Date:	Monday, March 10, 2031
CH4 Cal Gas Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
C3H8 Cal Gas Conc.	207.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
Removed C3H8 Conc.	207.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5707
Zero Air Gen model:	API T701H	Serial Number:	358

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320037
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	4.04E-04	4.43E-04	NMHC SP Ratio:	6.13E-05	7.10E-05
CH4 Retention time:	16.4	16.4	NMHC Peak Area:	152588	131865
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	17.51	16.06	1.090
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.06	Prev response	17.36	*% change	-8.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	17.51	17.38	1.007
Mid point	4959	41.0	8.74	8.65	1.011
Low point	4979	20.5	4.37	4.32	1.012
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	17.51	17.29	1.013
Average Correction Factor					1.010

Notes: Internal pump replaced, span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	9.36	8.49	1.102
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.49	Prev response	9.25	*% change	-8.9%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	9.36	9.44	0.991
Mid point	4959	41.0	4.67	4.71	0.992
Low point	4979	20.5	2.34	2.37	0.986
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	9.35	9.34	1.002
Average Correction Factor					0.990

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	8.15	7.57	1.077
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.57	Prev response	8.11	*% change	-7.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.15	7.94	1.027
Mid point	4959	41.0	4.07	3.94	1.034
Low point	4979	20.5	2.04	1.95	1.044
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	8.15	7.95	1.025
Average Correction Factor					1.035

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.990335	0.992790
THC Cal Offset:	0.019979	-0.013818
CH <sub>4</sub> Cal Slope:	0.995020	0.974587
CH <sub>4</sub> Cal Offset:	-0.001342	-0.017985
NMHC Cal Slope:	0.986350	1.008972
NMHC Cal Offset:	0.020920	0.003367

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

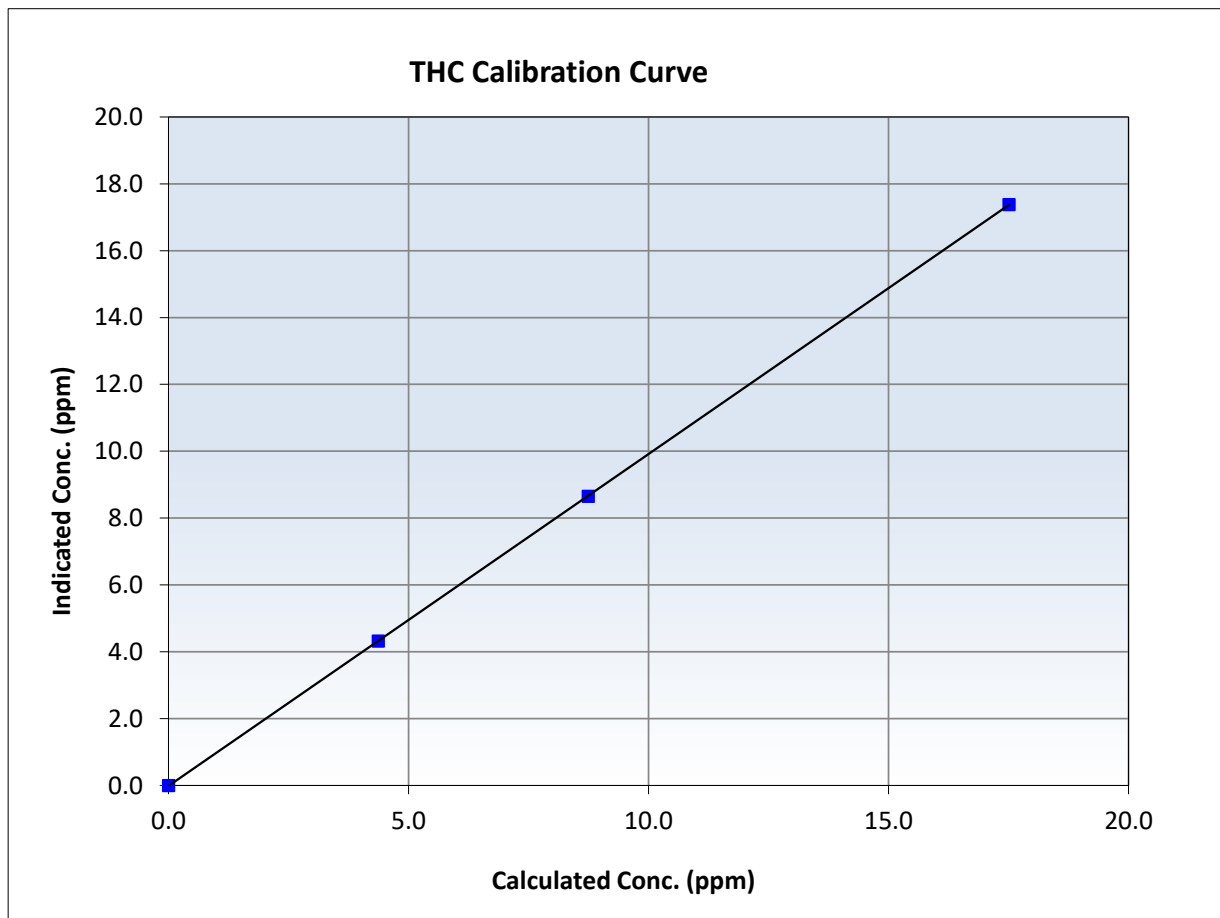
## THC Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	May 8, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:47	End Time (MST):	14:26
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999996	<i>≥0.995</i>
17.51	17.38	1.0075	Slope	0.992790	<i>0.90 - 1.10</i>
8.74	8.65	1.0108	Intercept	-0.013818	<i>+/-0.5</i>
4.37	4.32	1.0122			





# Wood Buffalo Environmental Association

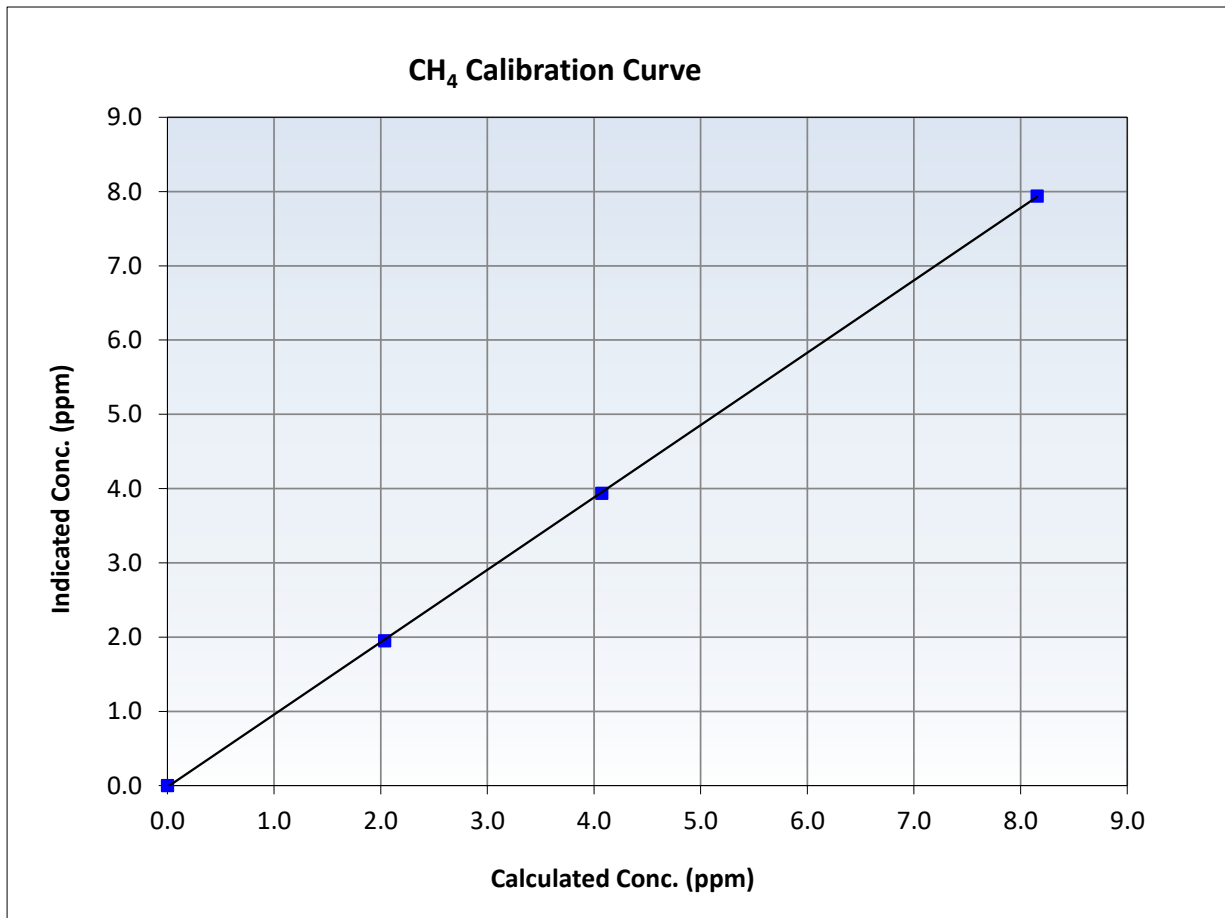
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	May 8, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:47	End Time (MST):	14:26
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999976	<i>≥0.995</i>
8.15	7.94	1.0271	Slope	0.974587	<i>0.90 - 1.10</i>
4.07	3.94	1.0341	Intercept	-0.017985	<i>+/-0.5</i>
2.04	1.95	1.0437			





# Wood Buffalo Environmental Association

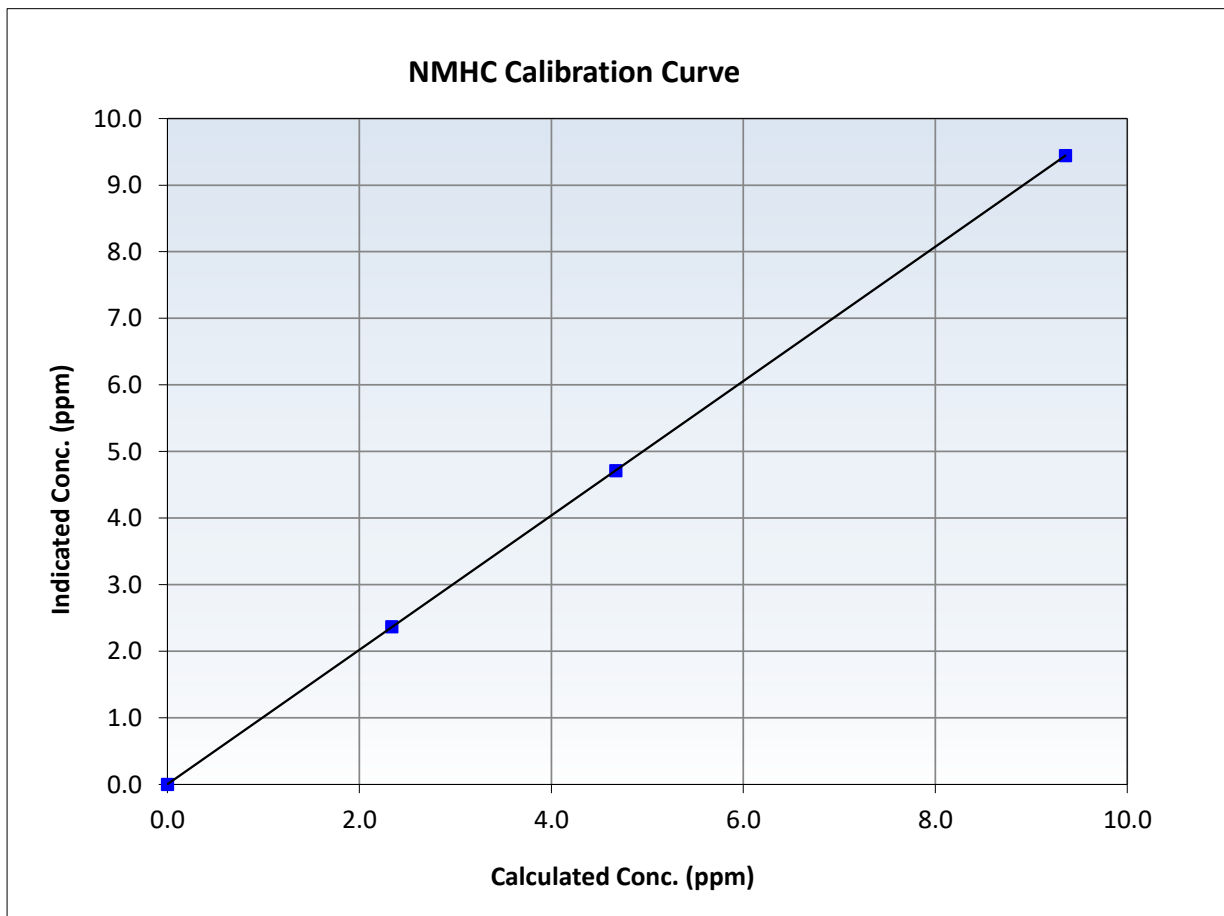
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 12, 2026	Previous Calibration:	May 8, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	8:47	End Time (MST):	14:26
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

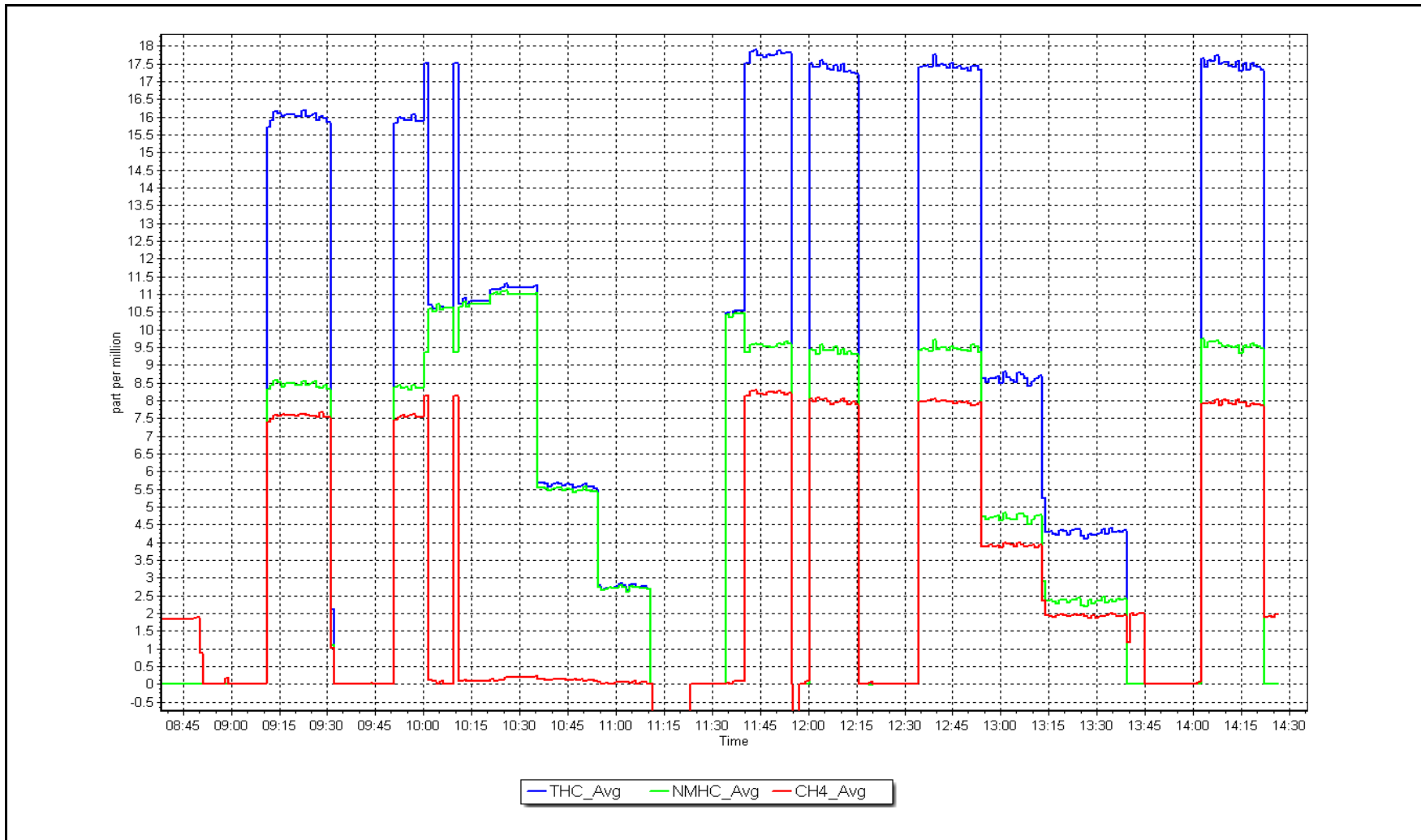
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.00	----	Correlation Coefficient	0.999998	<span style="color: red;">≥0.995</span>
9.36	9.44	0.9907	Slope	1.008972	<span style="color: red;">0.90 - 1.10</span>
4.67	4.71	0.9916	Intercept	0.003367	<span style="color: red;">+/-0.5</span>
2.34	2.37	0.9862			



NMHC Calibration Plot

Date: May 12, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Ells River	Station number:	AMS 30
Calibration Date:	May 17, 2026	Last Cal Date:	May 12, 2026
Start time (MST):	10:04	End time (MST):	13:10
Reason:	Maintenance		

### Calibration Standards

Gas Cert Reference:	CC350110	Cal Gas Expiry Date:	Monday, March 10, 2031
CH4 Cal Gas Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
C3H8 Cal Gas Conc.	207.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
Removed C3H8 Conc.	207.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5707
Zero Air Gen model:	API T701H	Serial Number:	358

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320037
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	4.43E-04	4.89E-04	NMHC SP Ratio:	7.10E-05	6.82E-05
CH4 Retention time:	16.4	17.0	NMHC Peak Area:	131865	137221
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	ON

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	17.51	17.07	1.026
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.07	Prev response	17.37	*% change	-1.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.02	----
High point	4918	82.1	17.51	17.52	0.999
Mid point	4959	41.0	8.74	8.69	1.007
Low point	4979	20.5	4.37	4.36	1.003
As left zero	5000	0.0	0.00	0.02	----
As left span	4919	82.1	17.51	17.43	1.005
Average Correction Factor					1.003

Notes: Calibration due to baseline dips. Sample inlet filter was changed after as founds. Adjusted zero and span.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	9.36	9.48	0.987
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.48	Prev response	9.44	*% change	0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.02	----
High point	4918	82.1	9.36	9.38	0.997
Mid point	4959	41.0	4.67	4.67	1.001
Low point	4979	20.5	2.34	2.36	0.988
As left zero	5000	0.0	0.00	0.01	----
As left span	4919	82.1	9.35	9.24	1.012
Average Correction Factor					0.995

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	8.15	7.59	1.074
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.59	Prev response	7.93	*% change	-4.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.15	8.14	1.001
Mid point	4959	41.0	4.07	4.02	1.013
Low point	4979	20.5	2.04	1.99	1.021
As left zero	5000	0.0	0.00	0.01	----
As left span	4919	82.1	8.15	8.19	0.996
Average Correction Factor					1.012

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.992790	0.999847
THC Cal Offset:	-0.013818	-0.008604
CH <sub>4</sub> Cal Slope:	0.974587	0.999761
CH <sub>4</sub> Cal Offset:	-0.017985	-0.025745
NMHC Cal Slope:	1.008972	1.000411
NMHC Cal Offset:	0.003367	0.016141

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

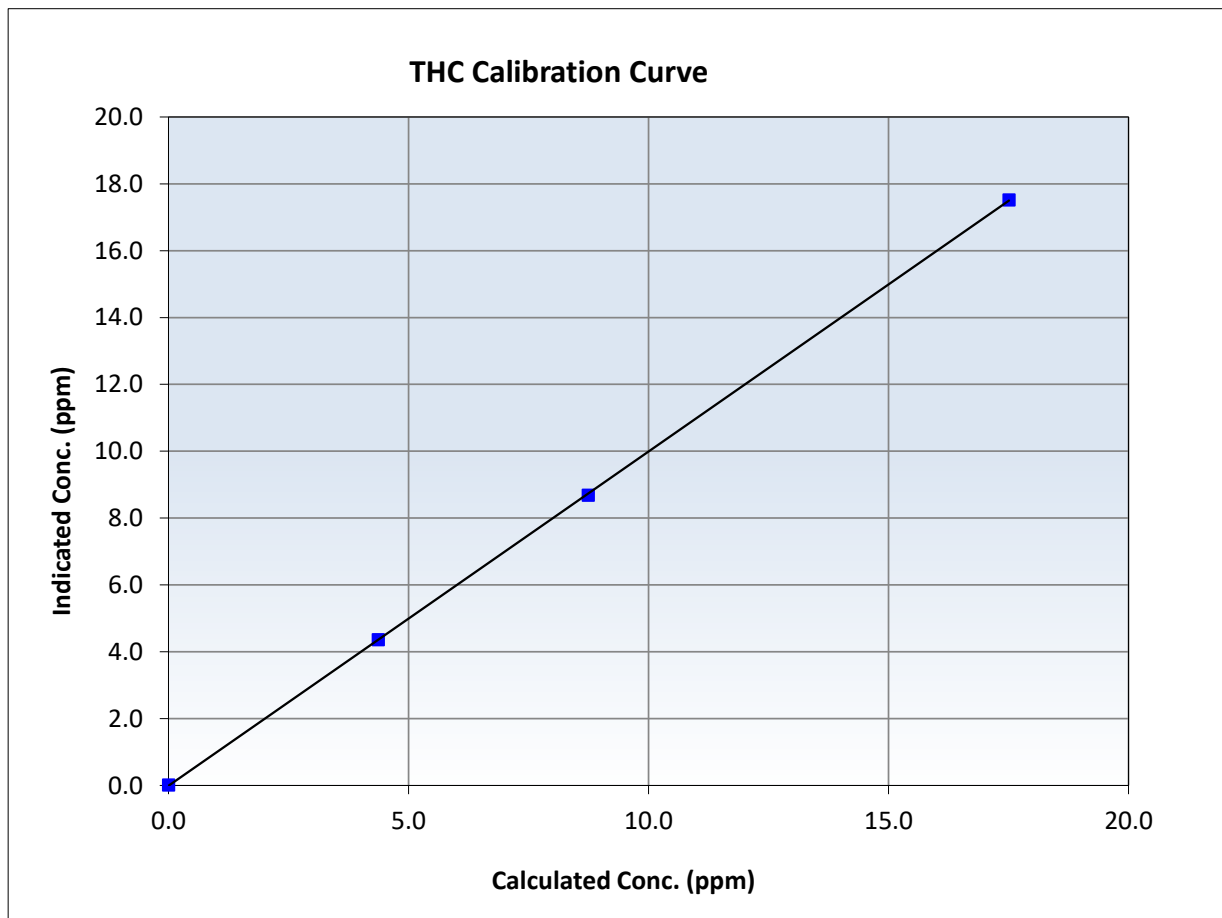
## THC Calibration Summary

### Station Information

Calibration Date:	May 17, 2026	Previous Calibration:	May 12, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:04	End Time (MST):	13:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>
0.00	0.02	----	Correlation Coefficient	0.999977 <span style="color: red;">≥0.995</span>
17.51	17.52	0.9992	Slope	0.999847 <span style="color: red;">0.90 - 1.10</span>
8.74	8.69	1.0067	Intercept	-0.008604 <span style="color: red;">+/-0.5</span>
4.37	4.36	1.0031		





# Wood Buffalo Environmental Association

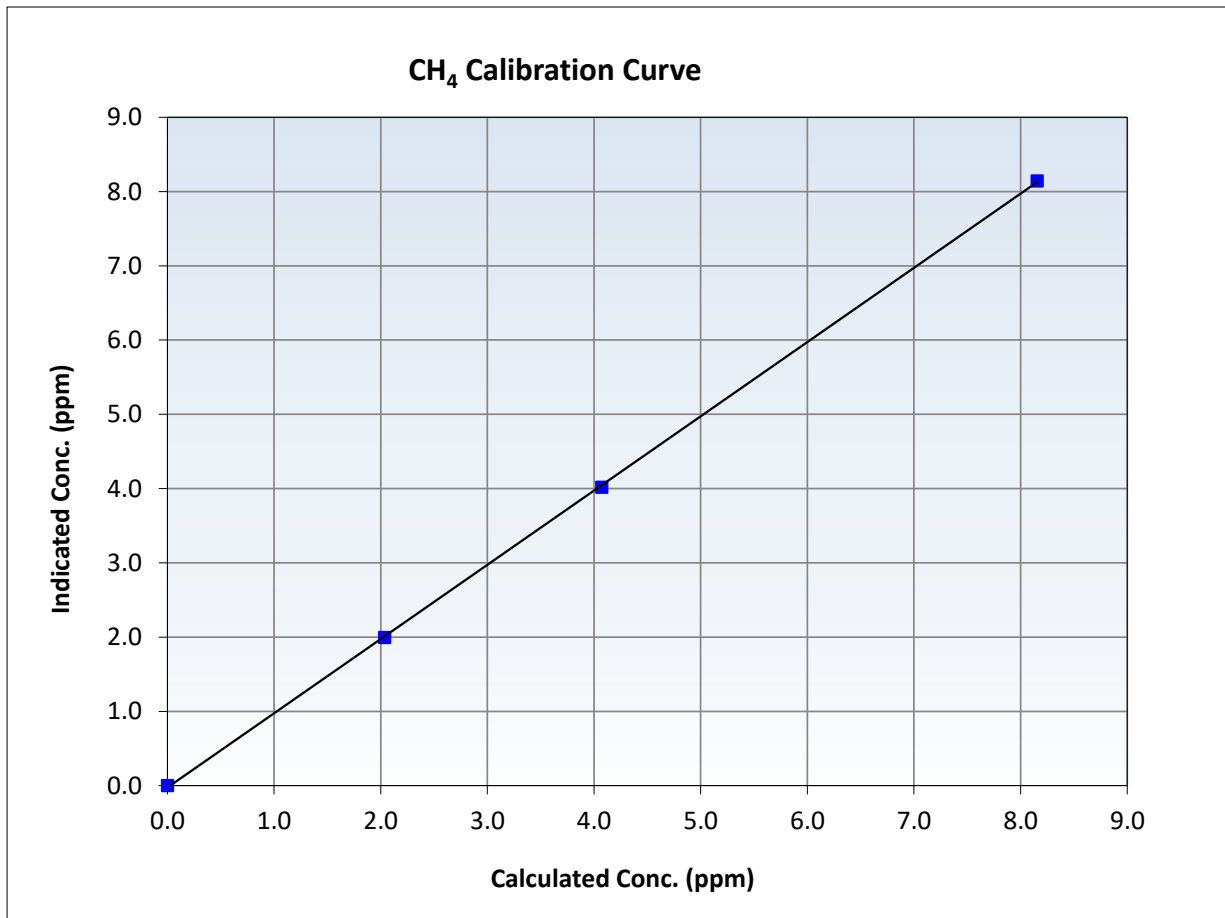
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 17, 2026	Previous Calibration:	May 12, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:04	End Time (MST):	13:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999945	<i>≥0.995</i>
8.15	8.14	1.0012	Slope	0.999761	<i>0.90 - 1.10</i>
4.07	4.02	1.0135	Intercept	-0.025745	<i>+/-0.5</i>
2.04	1.99	1.0212			





# Wood Buffalo Environmental Association

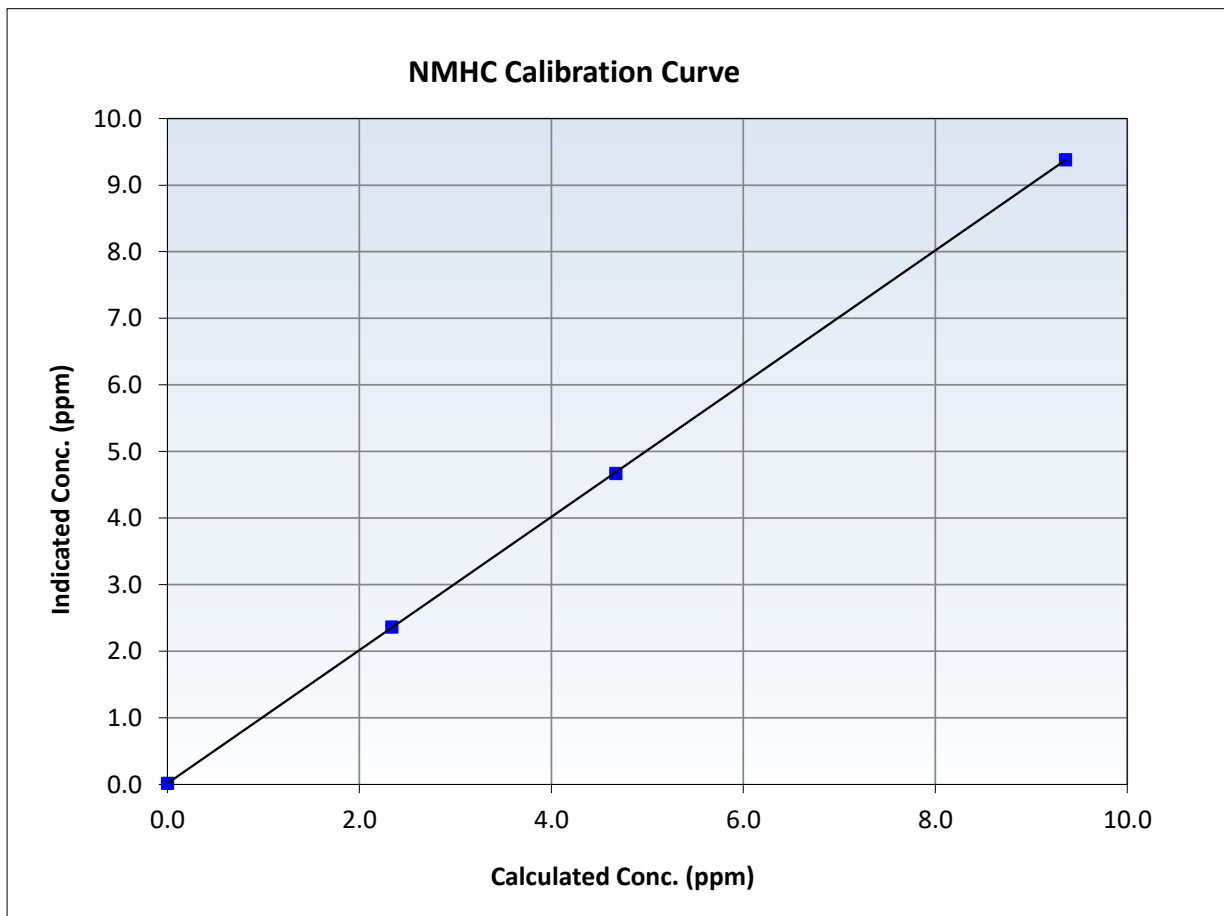
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 17, 2026	Previous Calibration:	May 12, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:04	End Time (MST):	13:10
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.02	----	Correlation Coefficient	0.999987	<span style="color: red;">≥0.995</span>
9.36	9.38	0.9970	Slope	1.000411	<span style="color: red;">0.90 - 1.10</span>
4.67	4.67	1.0007	Intercept	0.016141	<span style="color: red;">+/-0.5</span>
2.34	2.36	0.9883			



NMHC Calibration Plot

Date: May 17, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Ells River	Station number:	AMS 30
Calibration Date:	May 22, 2026	Last Cal Date:	May 17, 2026
Start time (MST):	10:40	End time (MST):	14:51
Reason:	Maintenance		

### Calibration Standards

Gas Cert Reference:	CC350110	Cal Gas Expiry Date:	Monday, March 10, 2031
CH4 Cal Gas Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
C3H8 Cal Gas Conc.	207.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	496.6 ppm	CH4 Equiv Conc.	1066.4 ppm
Removed C3H8 Conc.	207.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	API T700	Serial Number:	5707
Zero Air Gen model:	API T701H	Serial Number:	358

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1180320037
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>	<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	4.89E-04		NMHC SP Ratio:	6.82E-05
CH4 Retention time:	17.0		NMHC Peak Area:	137221
Zero Chromatogram:	ON	ON	Flat Baseline:	ON

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.02	----
As found High point	4918	82.1	17.51	17.50	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	17.48	Prev response	17.50	*% change	-0.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.03	----
High point	4918	82.1	17.51	17.35	1.009
Mid point	4959	41.0	8.74	8.63	1.013
Low point	4979	20.5	4.37	4.34	1.007
As left zero	5000	0.0	0.00	0.05	----
As left span	4919	82.1	17.51	17.49	1.001

Average Correction Factor 1.010

Notes: Calibration due to noisy zero, window timing for NM start adjusted back to 34s, zero chrom adjusted, span adjusted.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.02	----
As found High point	4918	82.1	9.36	9.34	1.004
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	9.32	Prev response	9.38	*% change	-0.6%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.03	----
High point	4918	82.1	9.36	9.18	1.019
Mid point	4959	41.0	4.67	4.61	1.014
Low point	4979	20.5	2.34	2.32	1.006
As left zero	5000	0.0	0.00	0.05	----
As left span	4919	82.1	9.35	9.25	1.011
Average Correction Factor					1.013

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4918	82.1	8.15	8.16	0.999
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.16	Prev response	8.13	*% change	0.4%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4918	82.1	8.15	8.17	0.998
Mid point	4959	41.0	4.07	4.03	1.011
Low point	4979	20.5	2.04	2.02	1.009
As left zero	5000	0.0	0.00	0.00	----
As left span	4919	82.1	8.15	8.24	0.990
Average Correction Factor					1.006

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.999847	0.989371
THC Cal Offset:	-0.008604	0.012364
CH <sub>4</sub> Cal Slope:	0.999761	1.001723
CH <sub>4</sub> Cal Offset:	-0.025745	-0.018741
NMHC Cal Slope:	1.000411	0.978507
NMHC Cal Offset:	0.016141	0.031505

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

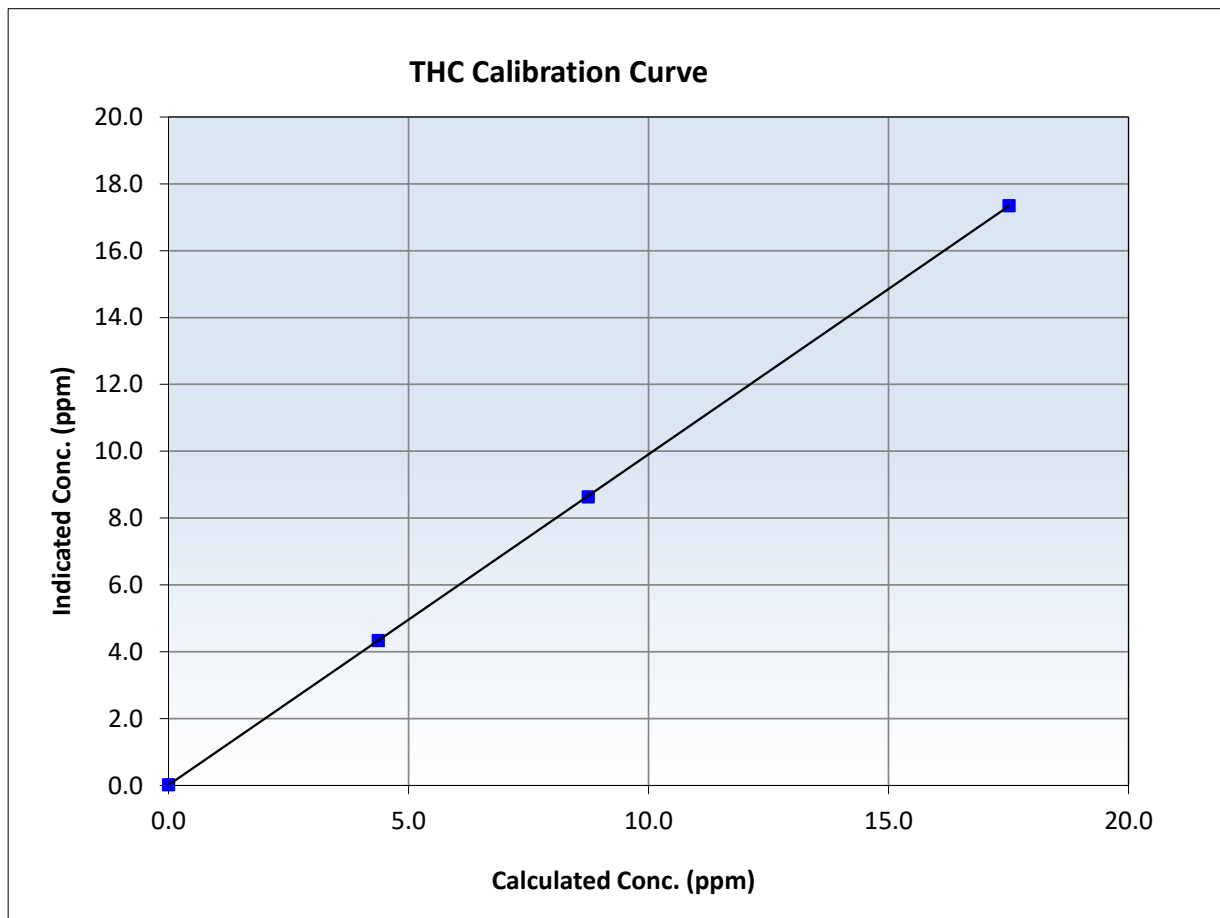
## THC Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	May 17, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:40	End Time (MST):	14:51
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.03	----	Correlation Coefficient	0.999992	<i>≥0.995</i>
17.51	17.35	1.0092	Slope	0.989371	<i>0.90 - 1.10</i>
8.74	8.63	1.0129	Intercept	0.012364	<i>+/-0.5</i>
4.37	4.34	1.0073			





# Wood Buffalo Environmental Association

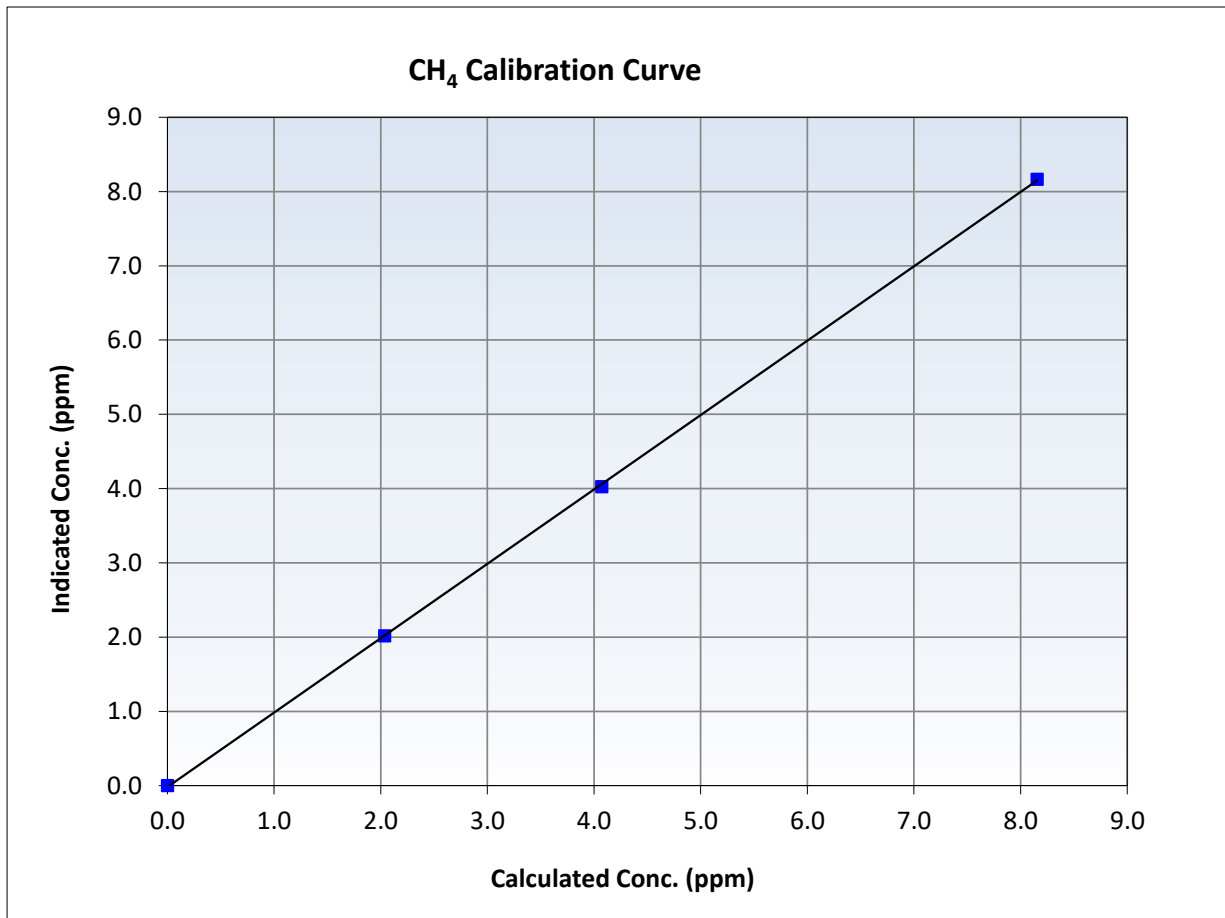
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	May 17, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:40	End Time (MST):	14:51
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999949	<i>≥0.995</i>
8.15	8.17	0.9984	Slope	1.001723	<i>0.90 - 1.10</i>
4.07	4.03	1.0115	Intercept	-0.018741	<i>+/-0.5</i>
2.04	2.02	1.0086			





# Wood Buffalo Environmental Association

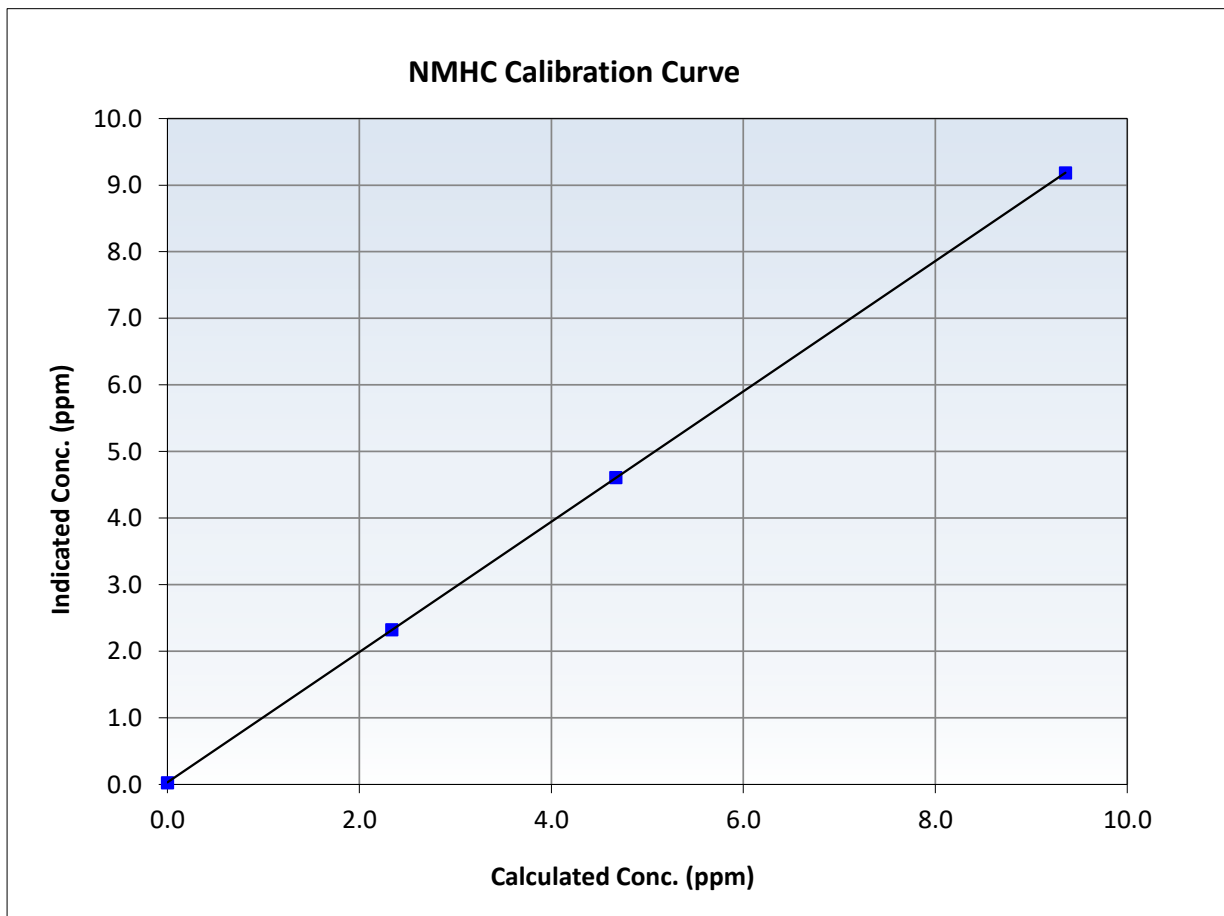
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	May 17, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	10:40	End Time (MST):	14:51
Analyzer make:	Thermo 55i	Analyzer serial #:	1180320037

### Calibration Data

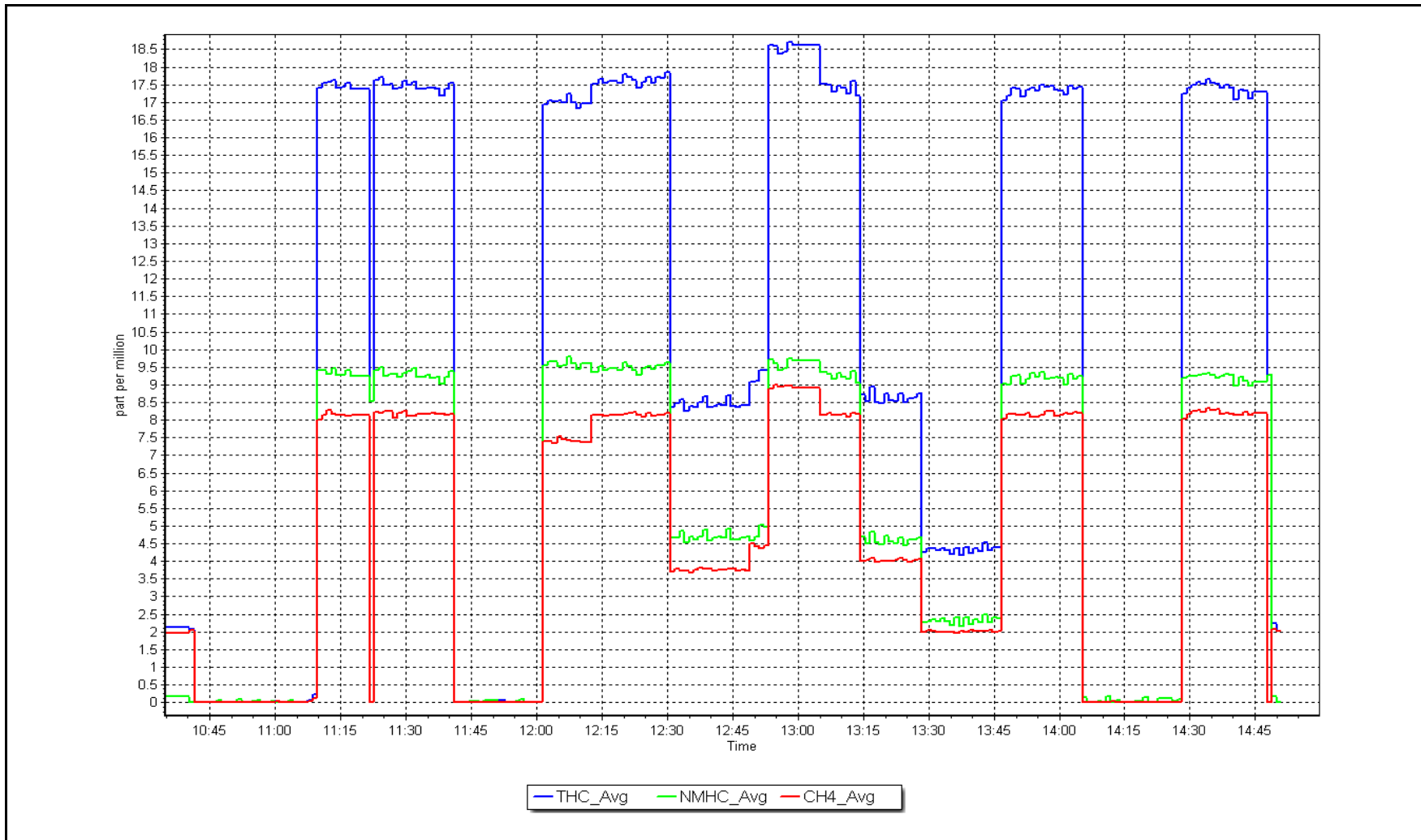
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.03	----	Correlation Coefficient	0.999998	<i>≥0.995</i>
9.36	9.18	1.0188	Slope	0.978507	<i>0.90 - 1.10</i>
4.67	4.61	1.0140	Intercept	0.031505	<i>+/-0.5</i>
2.34	2.32	1.0062			



NMHC Calibration Plot

Date: May 22, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Ells River  
 Station number: AMS 30  
 Calibration Date: May 11, 2026  
 Last Cal Date: April 14, 2026  
 Start time (MST): 9:24  
 End time (MST): 14:15  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0027487  
 NOX Cal Gas Conc: 59.30 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 59.30 ppm  
 NOX gas Diff:  
 Calibrator Model: API T700  
 ZAG make/model: API T701H  
 Cal Gas Expiry Date: January 9, 2032  
 NO Cal Gas Conc: 59.10 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 59.10 ppm  
 NO gas Diff:  
 Serial Number: 5707  
 Serial Number: 358

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	0.1	-0.3	----	----
AF High point	4932	67.7	803.0	800.3	2.7	797.8	789.6	8.1	1.0062	1.0136
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 803.5 ppb		NO = 798.4 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.7%	
Baseline Corr 1st pt	NO <sub>x</sub> = 798.0 ppb		NO = 789.5 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -1.1%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 0710321429

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.000810	0.994334
NO <sub>x</sub> Cal Offset:	-0.157585	0.340969
NO Cal Slope:	0.999302	0.992218
NO Cal Offset:	-1.319706	-0.941162
NO <sub>2</sub> Cal Slope:	1.000874	1.002159
NO <sub>2</sub> Cal Offset:	0.010019	0.382135

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.645	1.645	NO bkgnd or offset:	18.7	18.7
NOX coeff or slope:	0.996	0.996	NOX bkgnd or offset:	19.0	19.0
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	217.9	217.3

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOX concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOX concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOX Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	0.2	-0.3	----	----
High point	4932	67.7	803.0	800.3	2.7	798.5	793.5	5.0	1.0056	1.0085
Mid point	4966	33.8	400.9	399.5	1.4	399.4	395.4	4.0	1.0037	1.0105
Low point	4983	16.9	200.4	199.8	0.7	199.8	195.8	4.0	1.0032	1.0202
As left zero	5000	0.0	0.0	0.0	0.0	0.1	0.3	-0.2	----	----
As left span	4932	67.7	803.0	390.8	412.2	795.8	390.8	405.1	1.0090	1.0000
Average Correction Factor									1.0042	1.0131

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.3	----	----
High GPT point	787.9	385.9	404.7	405.5	0.9980	100.2%
Mid GPT point	787.9	584.5	206.1	207.6	0.9928	100.7%
Low GPT point	787.9	685.0	105.6	106.7	0.9898	101.0%
Average Correction Factor					0.9935	100.7%

Notes: Inlet filter changed after as founds, no adjustments made.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

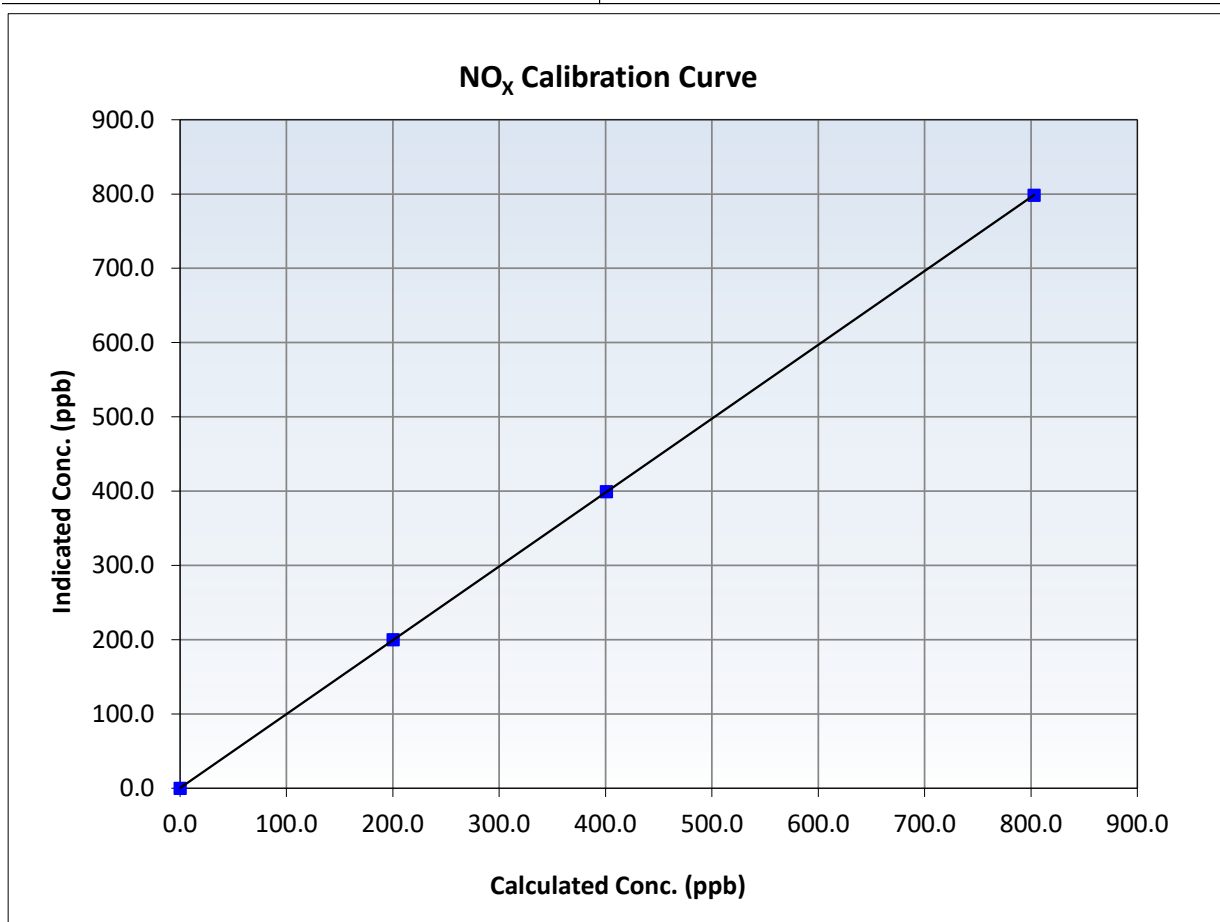
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 14, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	9:24	End Time (MST):	14:15
Analyzer make:	Thermo 42i	Analyzer serial #:	0710321429

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999999	≥0.995
803.0	798.5	1.0056	Slope	0.994334	0.90 - 1.10
400.9	399.4	1.0037	Intercept	0.340969	+/-20
200.4	199.8	1.0032			





# Wood Buffalo Environmental Association

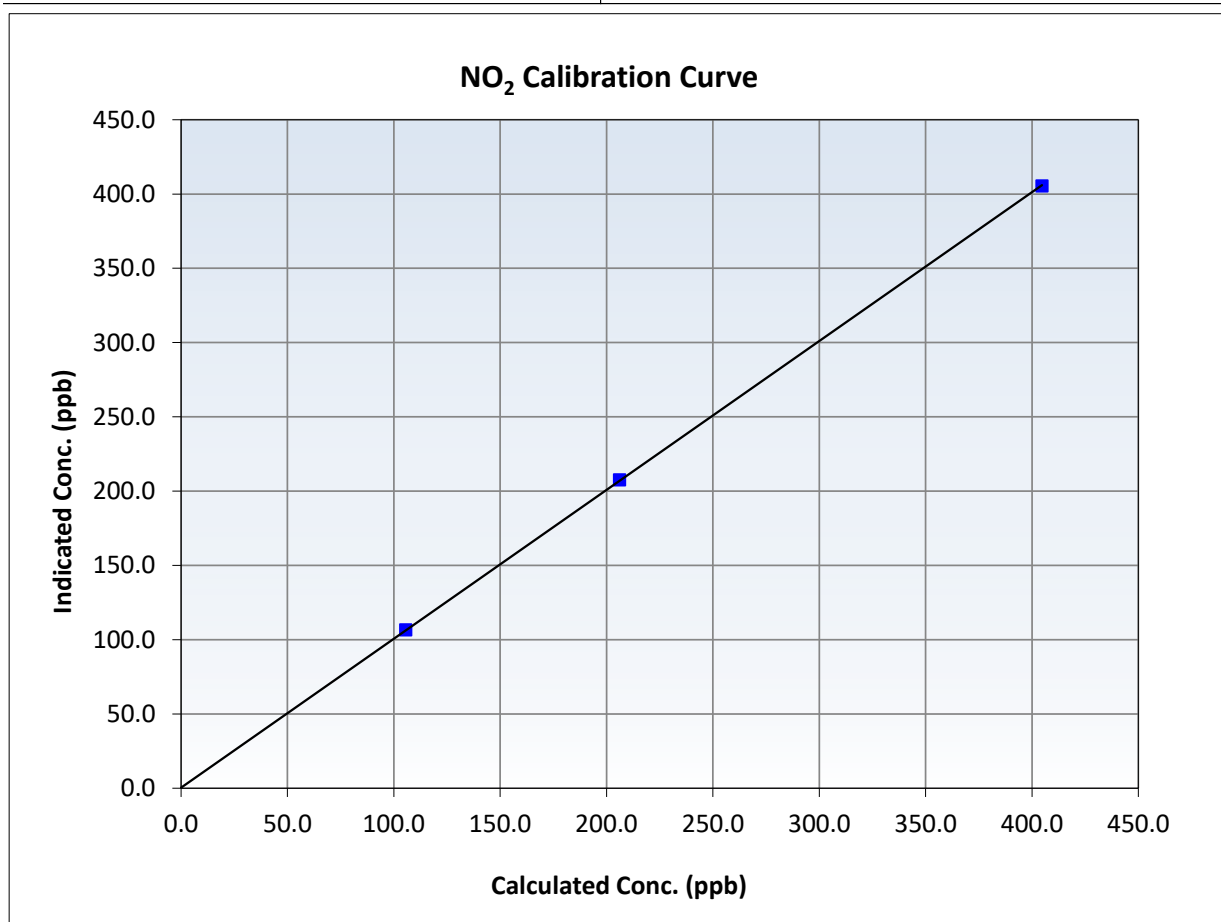
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 14, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	9:24	End Time (MST):	14:15
Analyzer make:	Thermo 42i	Analyzer serial #:	0710321429

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.3	----	Correlation Coefficient	0.999985	≥0.995
404.7	405.5	0.9980	Slope	1.002159	0.90 - 1.10
206.1	207.6	0.9928	Intercept	0.382135	+/-20
105.6	106.7	0.9898			





# Wood Buffalo Environmental Association

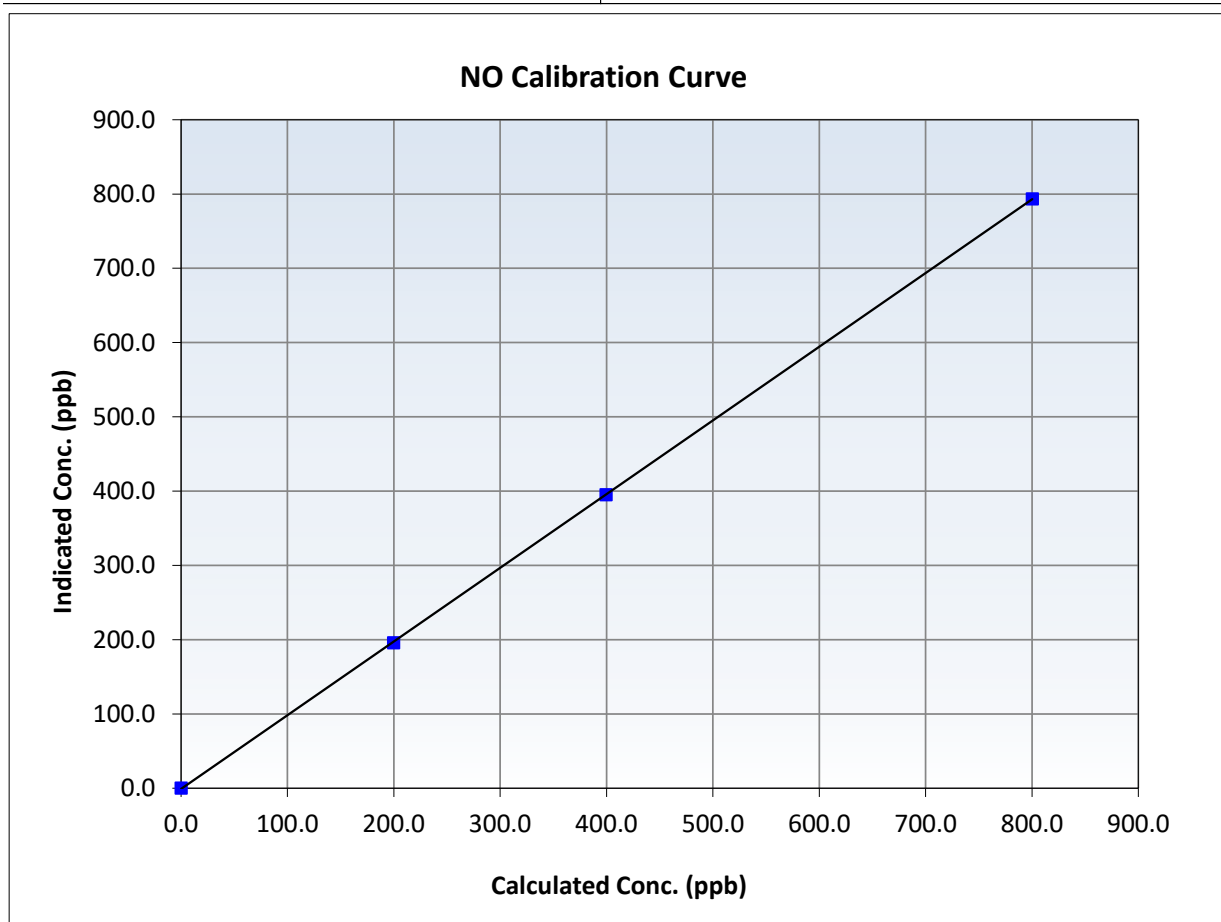
## NO Calibration Summary

### Station Information

Calibration Date:	May 11, 2026	Previous Calibration:	April 14, 2026
Station Name:	Ells River	Station Number:	AMS 30
Start Time (MST):	9:24	End Time (MST):	14:15
Analyzer make:	Thermo 42i	Analyzer serial #:	0710321429

### Calibration Data

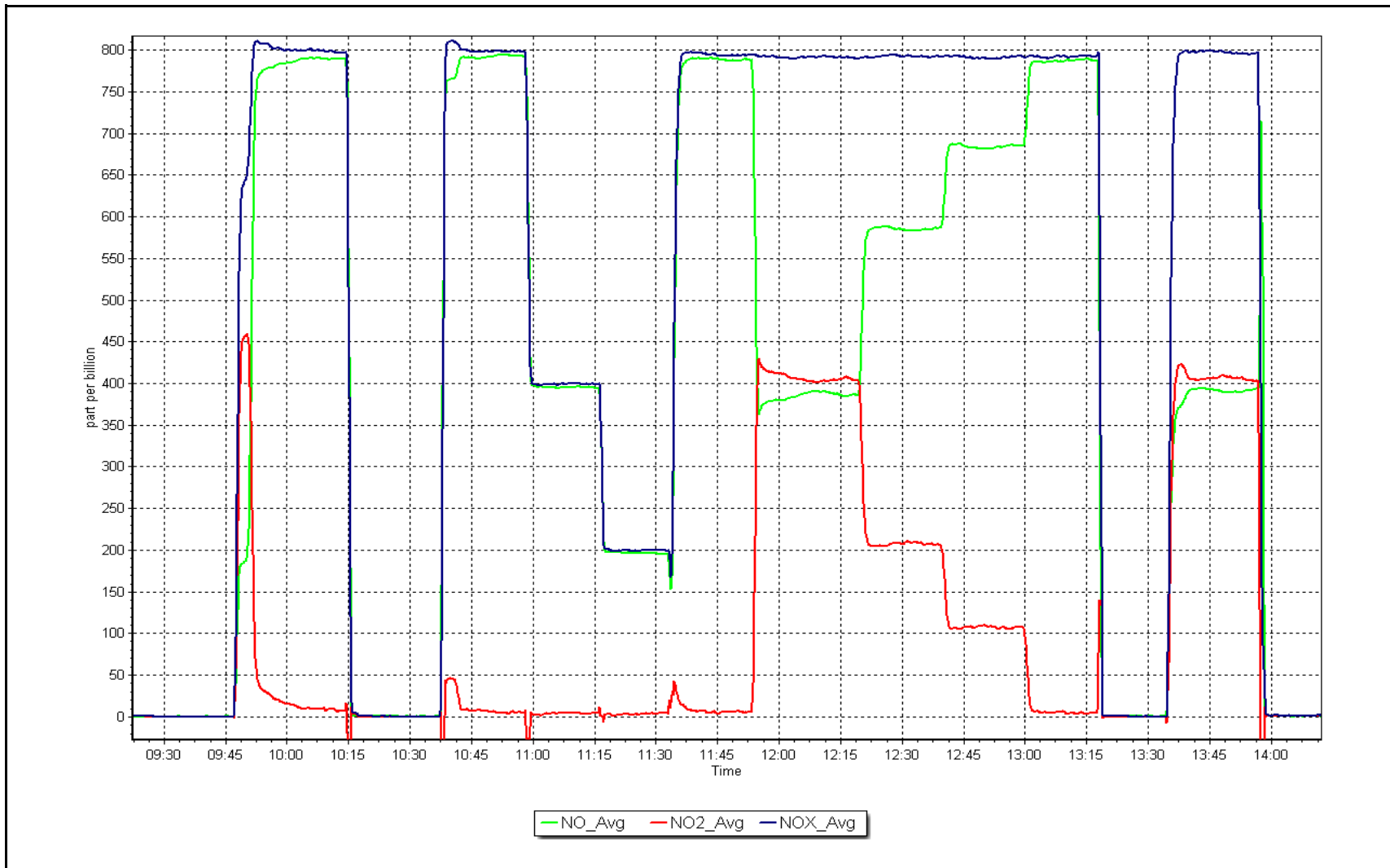
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999989	<i>≥0.995</i>
800.3	793.5	1.0085	Slope	0.992218	<i>0.90 - 1.10</i>
399.5	395.4	1.0105	Intercept	-0.941162	<i>+/-20</i>
199.8	195.8	1.0202			



NO<sub>x</sub> Calibration Plot

Date: May 11, 2026

Location: Ells River





# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Ells River Station number: AMS 30  
 Calibration Date: May 11, 2026 Last Cal Date: April 5, 2026  
 Start time (MST): 13:58 End time (MST): 14:15

Analyzer Make: API T640 S/N: 875  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388745  
 Temp/RH standard: Alicat FP-25BT S/N: 388745

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	19.50	19.42	19.50	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	727.40	729.44	727.40	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.02	4.97	5.02	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	30		30	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	4.60	PM w/ HEPA: _____	0.00	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: January 30, 2027  
 Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test				<input type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: April 5, 2026  
 Date Disposable Filter Changed: April 5, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ 0.00 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: June 18, 2025  
 Date RH/T Sensor Cleaned: June 18, 2025

Notes: Verified flow, pressure, temperature and pump power. Leak check passed

Calibration by: Jason Brooks



# Wood Buffalo Environmental Association

## T640 PM<sub>2.5</sub> CALIBRATION

Version-01-2024

### Station Information

Station Name: Ells River Station number: AMS 30  
 Calibration Date: May 21, 2026 Last Cal Date: May 11, 2026  
 Start time (MST): 9:35 End time (MST): 11:30

Analyzer Make: API T640 S/N: 875  
 Particulate Fraction: PM2.5

Flow Meter Make/Model: Alicat FP-25BT S/N: 388755  
 Temp/RH standard: Alicat FP-25BT S/N: 388755

### Monthly Calibration Test

Parameter	As found	Measured	As left	Adjusted	(Limits)
T (°C)	16.4	16.08	16.4	<input type="checkbox"/>	+/- 2 °C
P (mmHg)	731.1	733.09	731.1	<input type="checkbox"/>	+/- 10 mmHg
Flow (LPM)	5.03	4.98	5.03	<input type="checkbox"/>	+/- 0.25 LPM
PW% (pump)	31		31	<input type="checkbox"/>	>80%
Zero Verification	PM w/o HEPA: _____	14.5	PM w/ HEPA: _____	0.0	<0.2 ug/m3

Note: this leak check will be completed before the quarterly work and will serve as the pre maintenance leak check

PM Inlet observation : Inlet Head Clean  Alignment Factor On :

### Quarterly Calibration Test

SPAN DUST Refractive Index: 10.90 Expiry Date: January 30, 2027  
 Lot No.: 100128-050-051

Parameter	As found	Post maintenance	As left	Adjusted	(Limits)
PMT Peak Test	8.2	12.1	11.0	<input checked="" type="checkbox"/>	+/- 0.5

Date Optical Chamber Cleaned: May 21, 2026  
 Date Disposable Filter Changed: April 5, 2026

Post- maintenance Zero Verification: PM w/ HEPA: \_\_\_\_\_ 0.00 <0.2 ug/m3

### Annual Maintenance

Date Sample Tube Cleaned: June 18, 2025  
 Date RH/T Sensor Cleaned: June 18, 2025

Notes: Maintenance to perform optic cleaning, small PMT adjustment (down to 1486 mV) made post cleaning.

Calibration by: Kelly Baragar



## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS31 BLACKROD MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Blackrod	Station number:	AMS 31
Calibration Date:	May 25, 2026	Last Cal Date:	April 28, 2026
Start time (MST):	10:59	End time (MST):	14:12
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.25	ppm	Cal Gas Exp Date:	March 10, 2031
Cal Gas Cylinder #:	CC327023			
Removed Cal Gas Conc:	50.25	ppm	Rem Gas Exp Date:	N/A
Removed Gas Cyl #:	N/A		Diff between cyl:	
Calibrator Model:	Teledyne T700		Serial Number:	1220
Zero Air Gen Model:	Teledyne N701H		Serial Number:	72

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1160290014
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.006142	0.998746	Backgd or Offset:	42.7	41.1
Calibration intercept:	-0.323118	-0.061535	Coeff or Slope:	1.036	1.007

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.8	----
As found High point	4921	79.5	798.9	818.3	0.975
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	819.1	Previous response	803.5	*% change	1.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4921	79.5	798.9	797.8	1.001
Mid point	4960	39.8	400.0	399.5	1.001
Low point	4980	19.9	200.0	199.7	1.001
As left zero	5000	0.0	0.0	-0.2	----
As left span	4921	79.5	798.9	798.6	1.000
Average Correction Factor:					1.001

Notes: Sample inlet filter was changed after as founds. Adjusted zero and span.

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

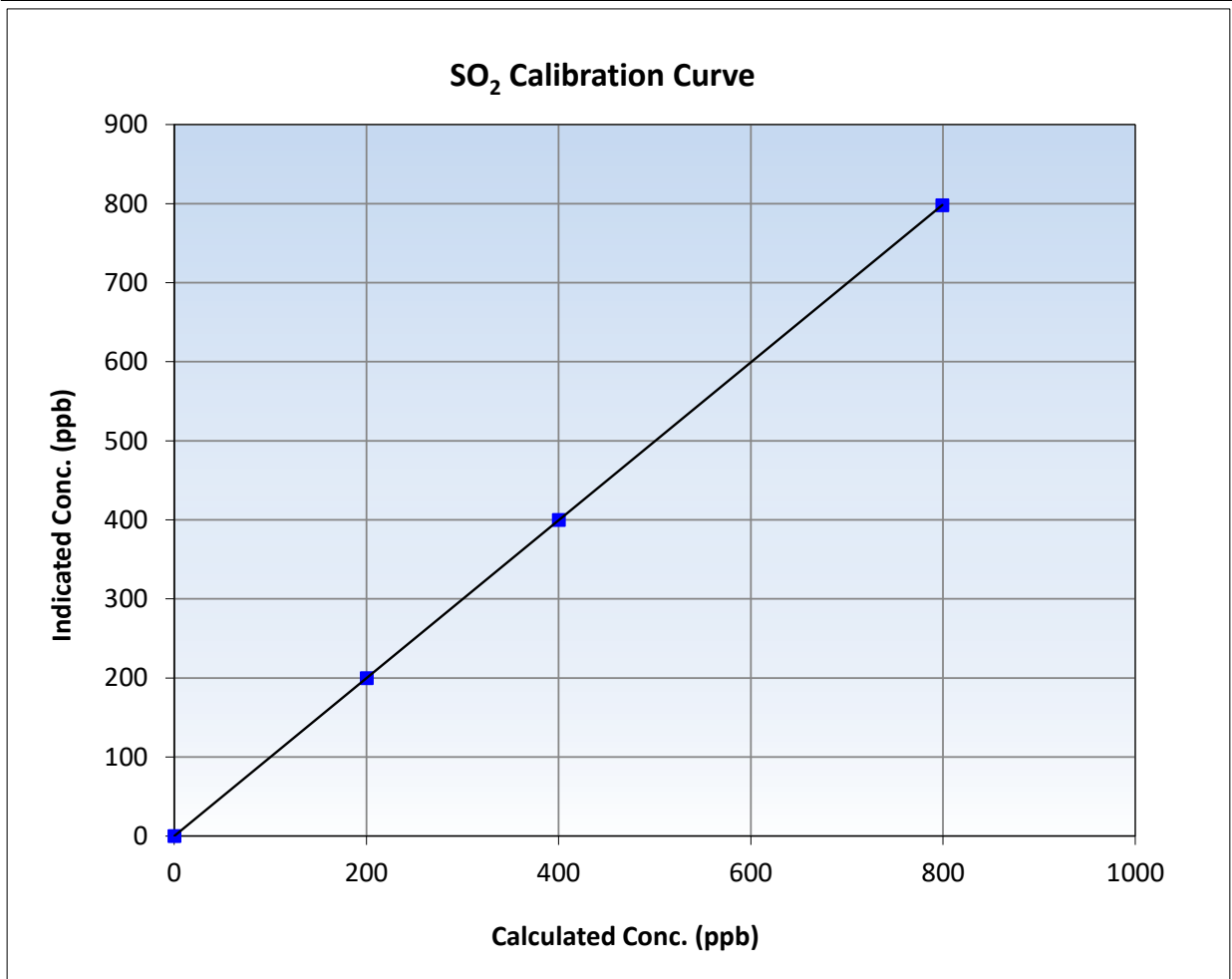
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 28, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	10:59	End Time (MST):	14:12
Analyzer make:	Thermo 43i	Analyzer serial #:	1160290014

### Calibration Data

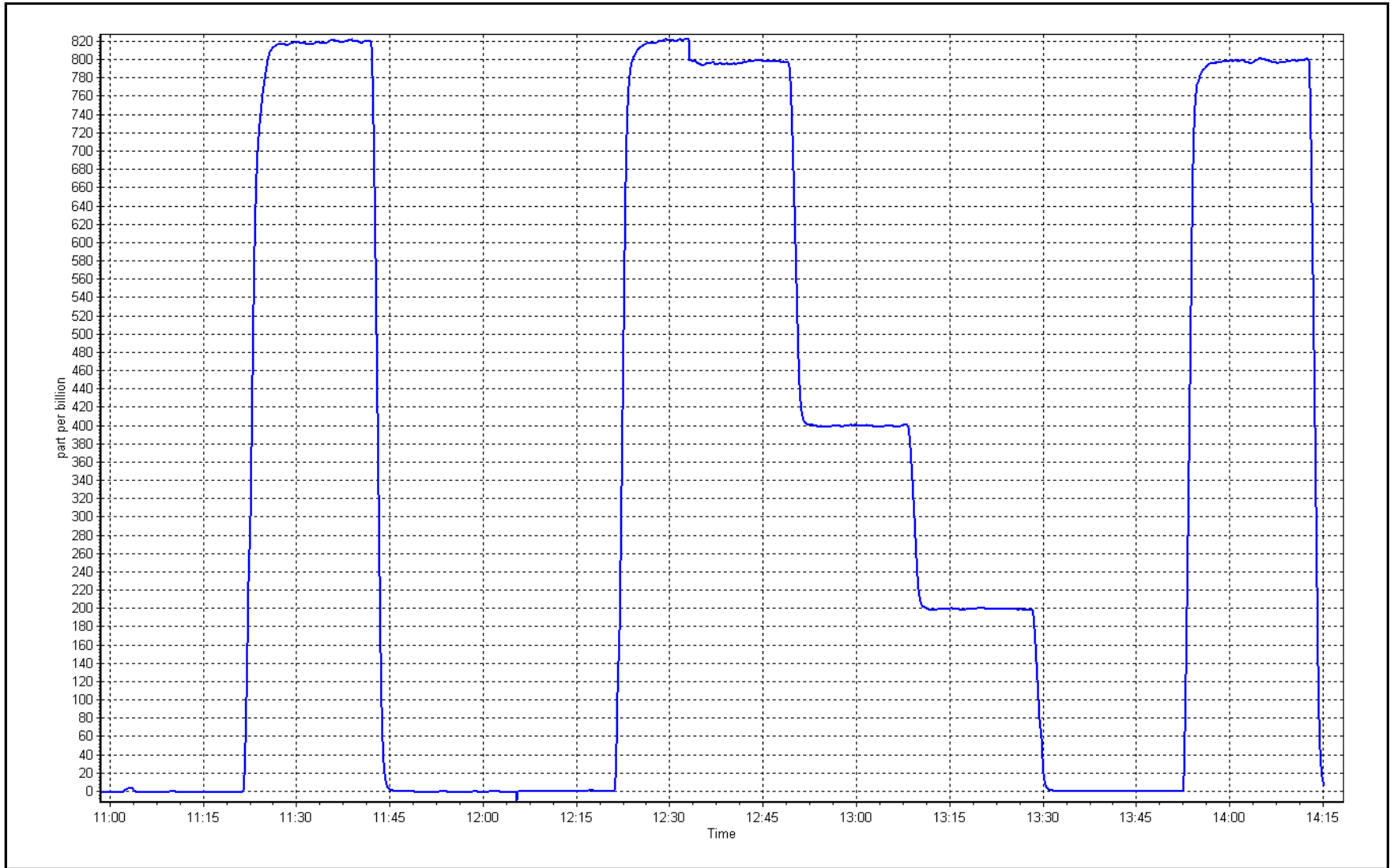
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	-0.1	----	Correlation Coefficient	1.000000	<b>≥0.995</b>
798.9	797.8	1.0014	Slope	0.998746	<b>0.90 - 1.10</b>
400.0	399.5	1.0013	Intercept	-0.061535	<b>+/-30</b>
200.0	199.7	1.0015			



SO2 Calibration Plot

Date: May 25, 2026

Location: Blackrod





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Blackrod	Station number:	AMS 31
Calibration Date:	May 27, 2026	Last Cal Date:	April 22, 2026
Start time (MST):	9:55	End time (MST):	14:10
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.42	ppm	Cal Gas Exp Date:	March 19, 2027
Cal Gas Cylinder #:	DT0016926			
Removed Cal Gas Conc:	5.42	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	1220
ZAG Make/Model:	Teledyne API N701H		Serial Number:	72

### Analyzer Information

Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12228021056
Converter make:	Global	Converter serial #:	2023-266
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004761	1.007479	Backgd or Offset:	3.04	2.85
Calibration intercept:	0.119593	-0.000550	Coeff or Slope:	1.006	1.006

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4926	73.8	80.0	79.6	1.001
As found Mid point	4963	36.9	40.0	39.8	0.998
As found Low point	4982	18.5	20.1	19.5	1.013
New cylinder response					
Baseline Corr As found:	79.9	Prev response:	80.50	*% change:	-0.8%
Baseline Corr 2nd AF pt:	40.1	AF Slope:	0.999903	AF Intercept:	-0.360297
Baseline Corr 3rd AF pt:	19.8	AF Correlation:	0.999981	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4926	73.8	80.0	80.6	0.993
Mid point	4963	36.9	40.0	40.3	0.993
Low point	4982	18.5	20.1	20.2	0.993
As left zero	5000	0.0	0.0	0.0	----
As left span	4926	73.8	80.0	80.4	0.995
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	27-Aug-25		Ave Corr Factor		0.993
Date of last converter efficiency test:	October 9, 2025				

Notes: Sample inlet filter was changed after multipoint as founds. SO2 scrubber done and passed. Adjusted zero only.

Calibration Performed By: Jan Castro



# Wood Buffalo Environmental Association

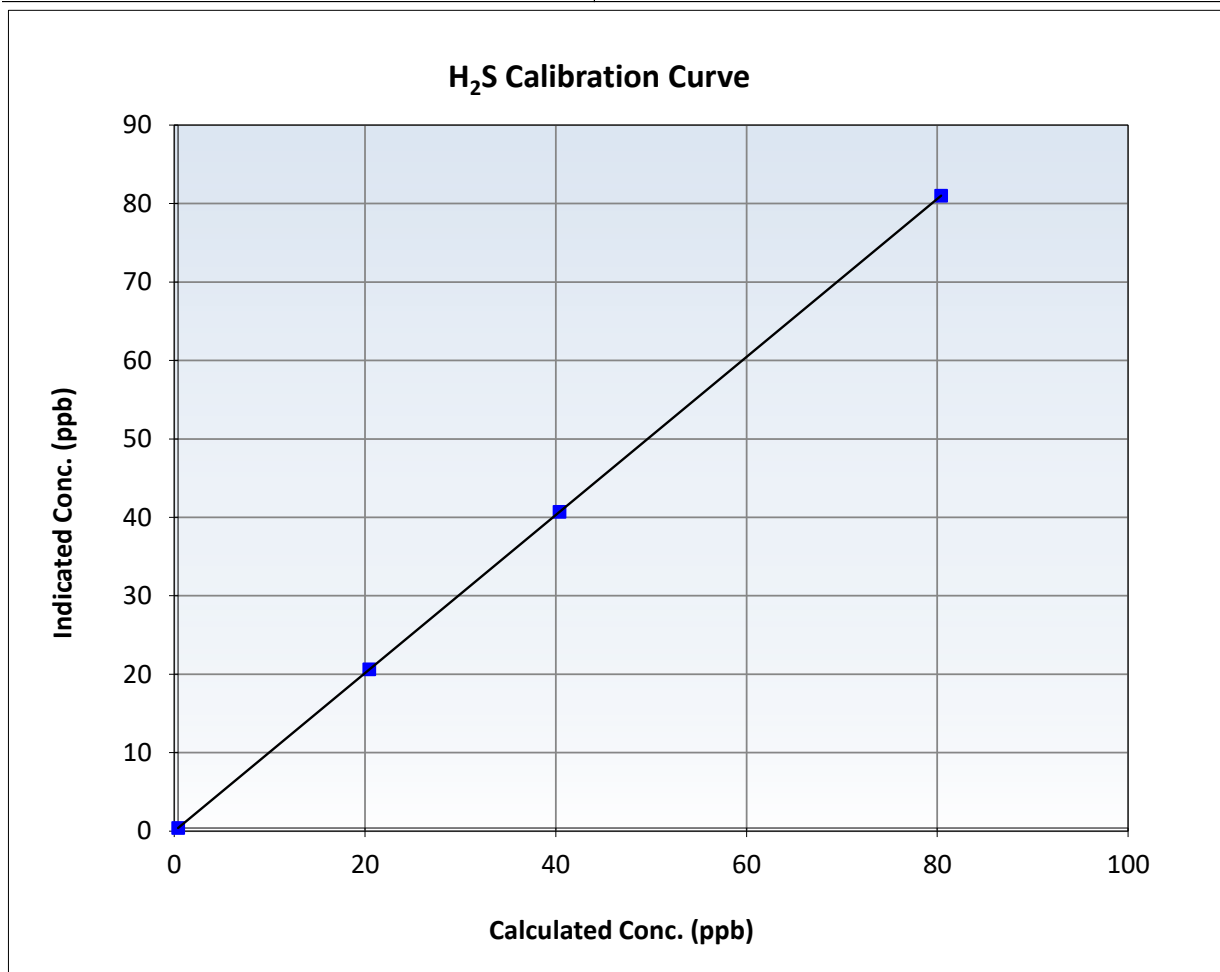
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 27, 2026	Previous Calibration:	April 22, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:55	End Time (MST):	14:10
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12228021056

### Calibration Data

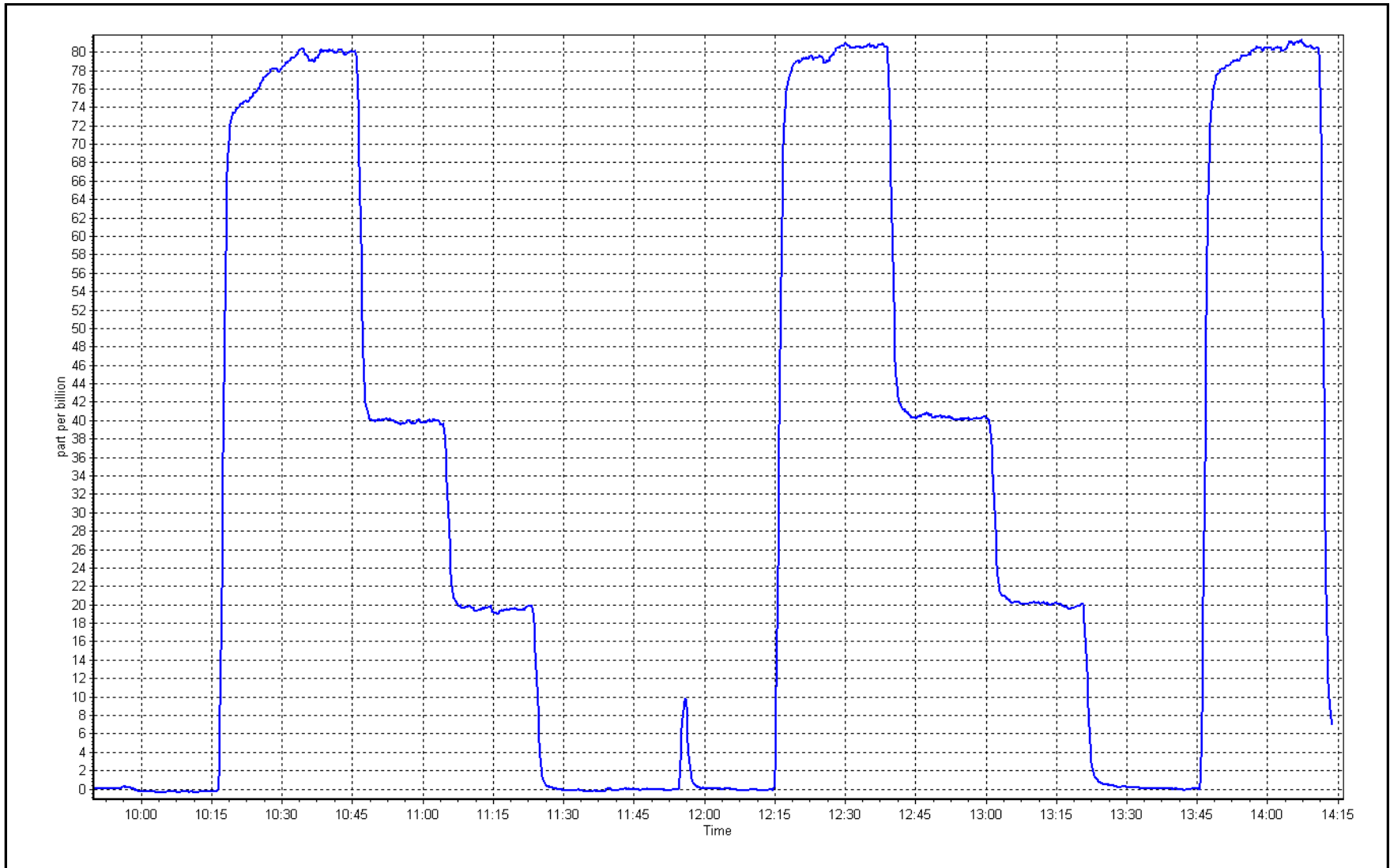
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	1.000000	≥0.995
80.0	80.6	0.9926	Slope	1.007479	0.90 - 1.10
40.0	40.3	0.9926	Intercept	-0.000550	+/-3
20.1	20.2	0.9927			



H<sub>2</sub>S Calibration Plot

Date: May 27, 2026

Location: Blackrod







# Wood Buffalo Environmental Association

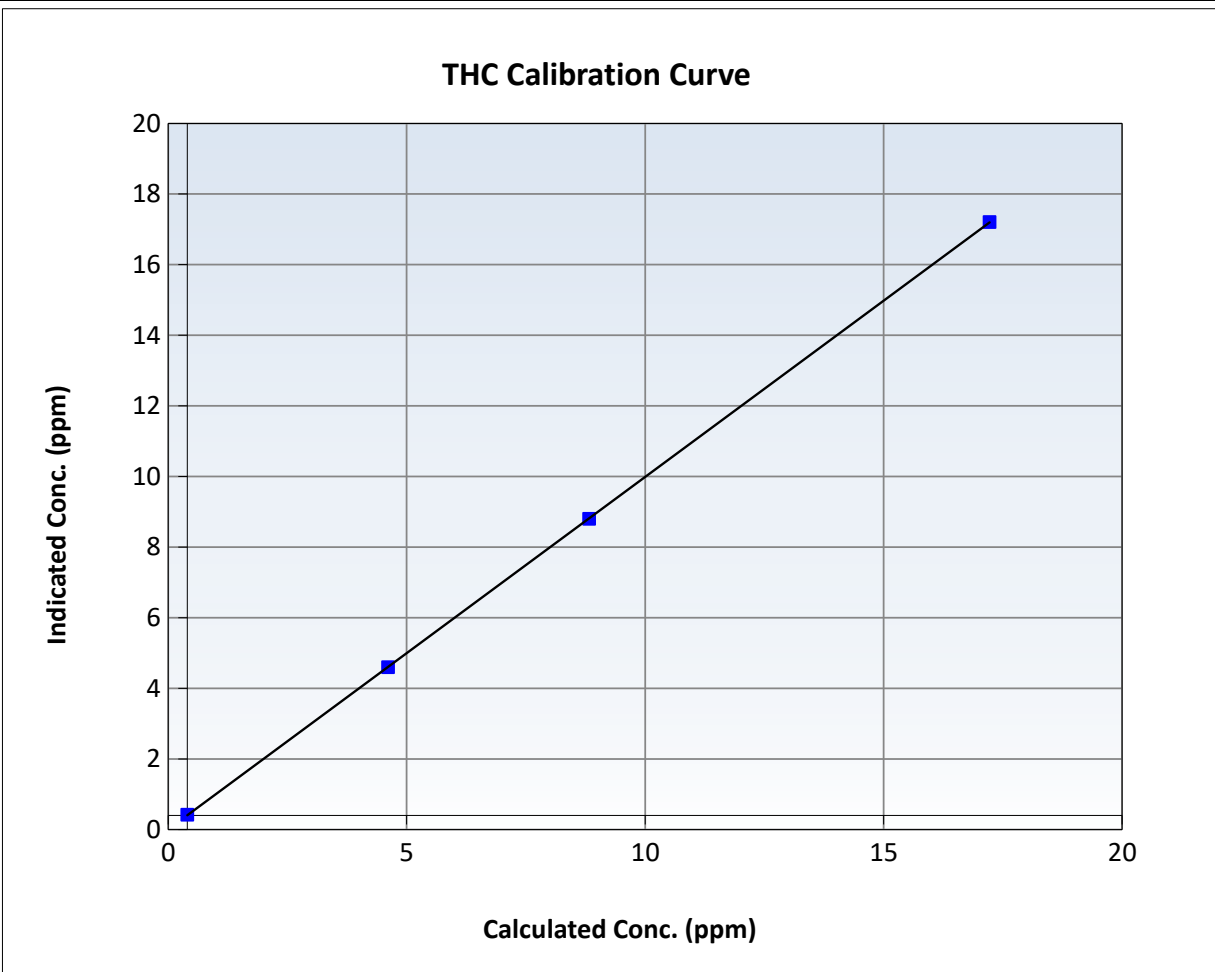
## THC Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 28, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	10:59	End Time (MST):	14:12
Analyzer make:	Thermo 51i- LT	Analyzer serial #:	1505164380

### Calibration Data

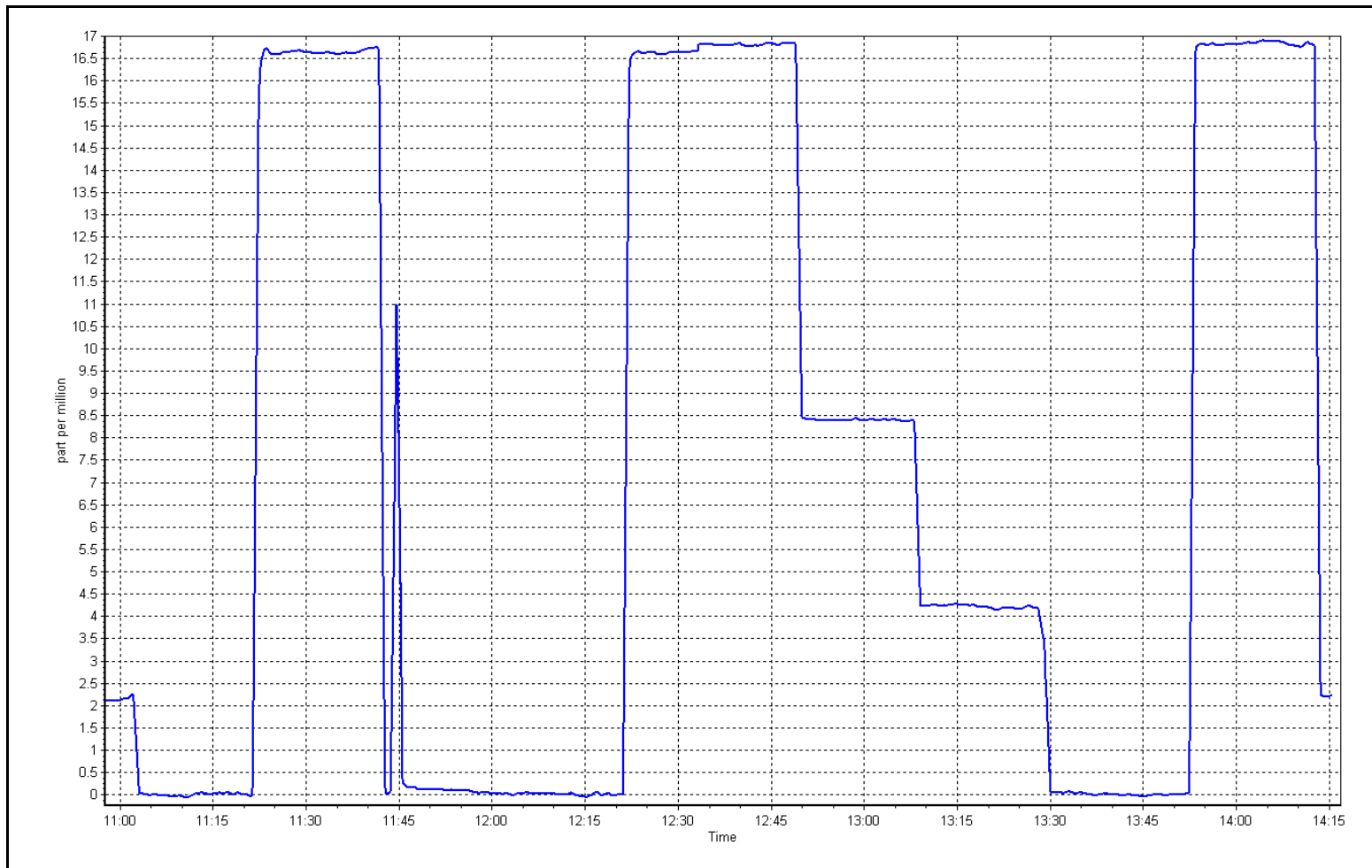
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	0.02	----	Correlation Coefficient	0.999997	<span style="color: red;">≥0.995</span>
16.82	16.81	1.0009	Slope	0.998200	<span style="color: red;">0.90 - 1.10</span>
8.42	8.40	1.0028	Intercept	0.005348	<span style="color: red;">+/-1.5</span>
4.21	4.20	1.0027			



THC Calibration Plot

Date: May 25, 2026

Location: Blackrod





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Blackrod  
 Station number: AMS 31  
 Calibration Date: May 26, 2026  
 Last Cal Date: April 21, 2026  
 Start time (MST): 9:38  
 End time (MST): 13:44  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0035071  
 NOX Cal Gas Conc: 59.30 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 59.30 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API N701H  
 Cal Gas Expiry Date: January 9, 2032  
 NO Cal Gas Conc: 59.10 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 59.10 ppm  
 NO gas Diff:  
 Serial Number: 1220  
 Serial Number: 72

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.2	0.0	0.2	----	----
AF High point	4932	67.7	803.0	800.3	2.7	804.1	797.8	6.3	0.9988	1.0031
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 802.1 ppb		NO = 799.2 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = 0.2%	
Baseline Corr 1st pt	NO <sub>x</sub> = 803.9 ppb		NO = 797.8 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -0.2%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1173480006

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.998262	0.995188
NO <sub>x</sub> Cal Offset:	0.562008	0.541158
NO Cal Slope:	0.999329	0.994631
NO Cal Offset:	-0.479260	-0.560324
NO <sub>2</sub> Cal Slope:	0.997753	1.002369
NO <sub>2</sub> Cal Offset:	-0.091364	-0.637909

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.968	0.968	NO bkgnd or offset:	2.3	2.3
NOX coeff or slope:	0.995	0.995	NOX bkgnd or offset:	2.3	2.3
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	145.6	146.8

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.3	0.1	0.2	----	----
High point	4932	67.7	803.0	800.3	2.7	799.4	795.6	3.8	1.0045	1.0059
Mid point	4966	33.8	400.9	399.5	1.4	400.0	396.9	3.0	1.0022	1.0066
Low point	4983	16.9	200.4	199.8	0.7	200.0	197.2	2.8	1.0022	1.0130
As left zero	5000	0.0	0.0	0.0	0.0	0.3	0.1	0.2	----	----
As left span	4932	67.7	803.0	386.4	416.6	798.6	386.4	412.1	1.0055	1.0000
Average Correction Factor									1.0030	1.0085

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.2	----	----
High GPT point	793.7	385.0	411.4	412.2	0.9981	100.2%
Mid GPT point	793.7	587.9	208.5	207.9	1.0029	99.7%
Low GPT point	793.7	687.3	109.1	107.9	1.0112	98.9%
Average Correction Factor					1.0041	99.6%

Notes:

Sample inlet filter was changed after as founds. No adjustment made.

Calibration Performed By:

Jan Castro



# Wood Buffalo Environmental Association

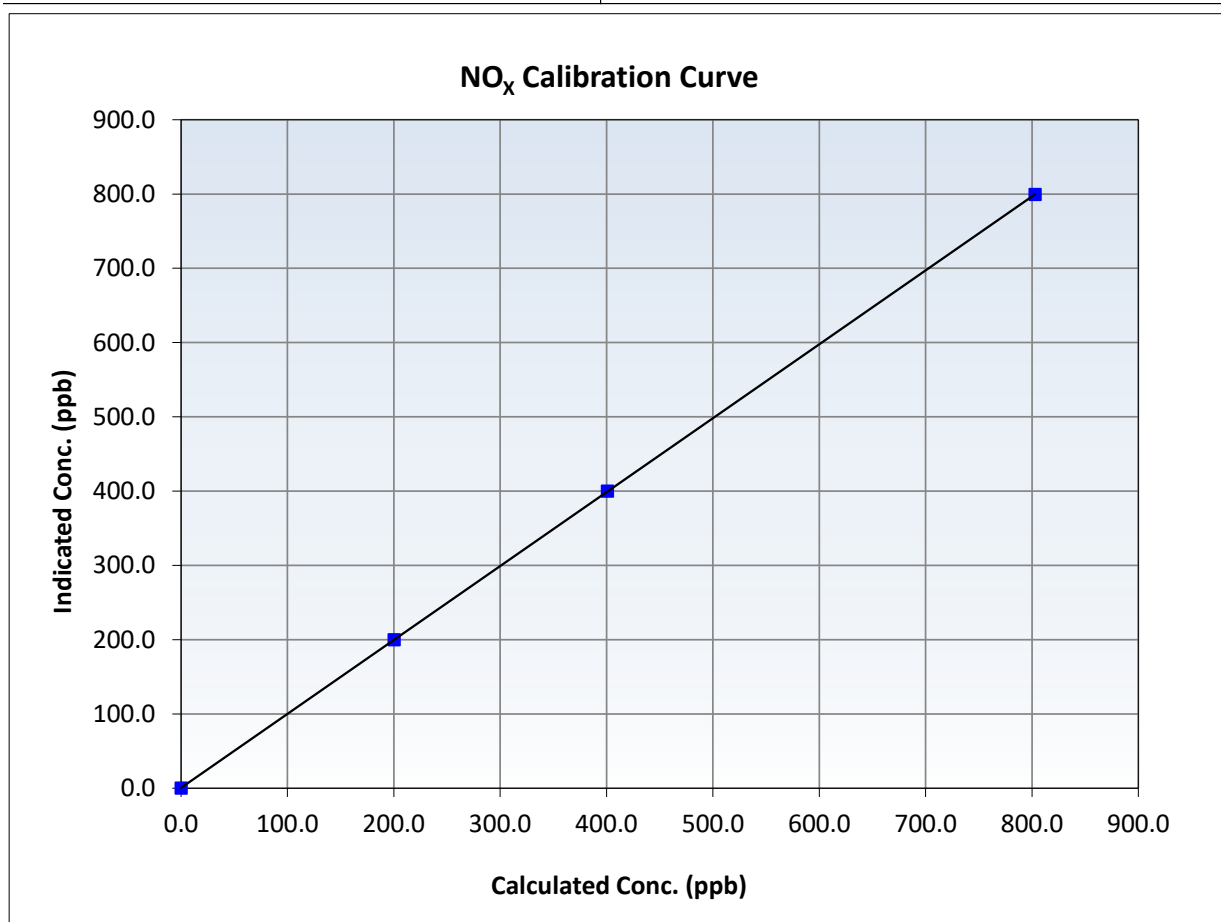
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 21, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:38	End Time (MST):	13:44
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.3	----	Correlation Coefficient	0.999999	≥0.995
803.0	799.4	1.0045	Slope	0.995188	0.90 - 1.10
400.9	400.0	1.0022	Intercept	0.541158	+/-20
200.4	200.0	1.0022			





# Wood Buffalo Environmental Association

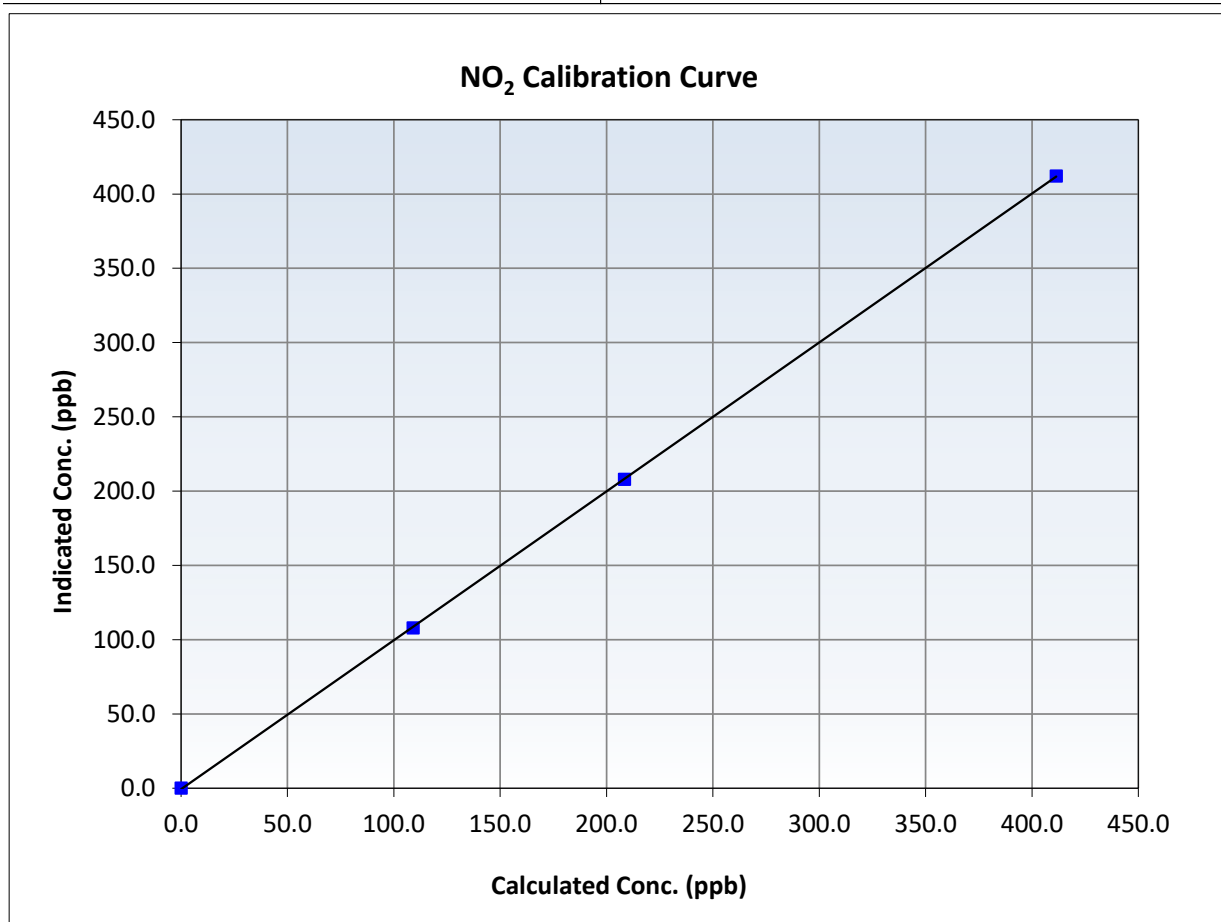
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 21, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:38	End Time (MST):	13:44
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999980	≥0.995
411.4	412.2	0.9981	Slope	1.002369	0.90 - 1.10
208.5	207.9	1.0029	Intercept	-0.637909	+/-20
109.1	107.9	1.0112			





# Wood Buffalo Environmental Association

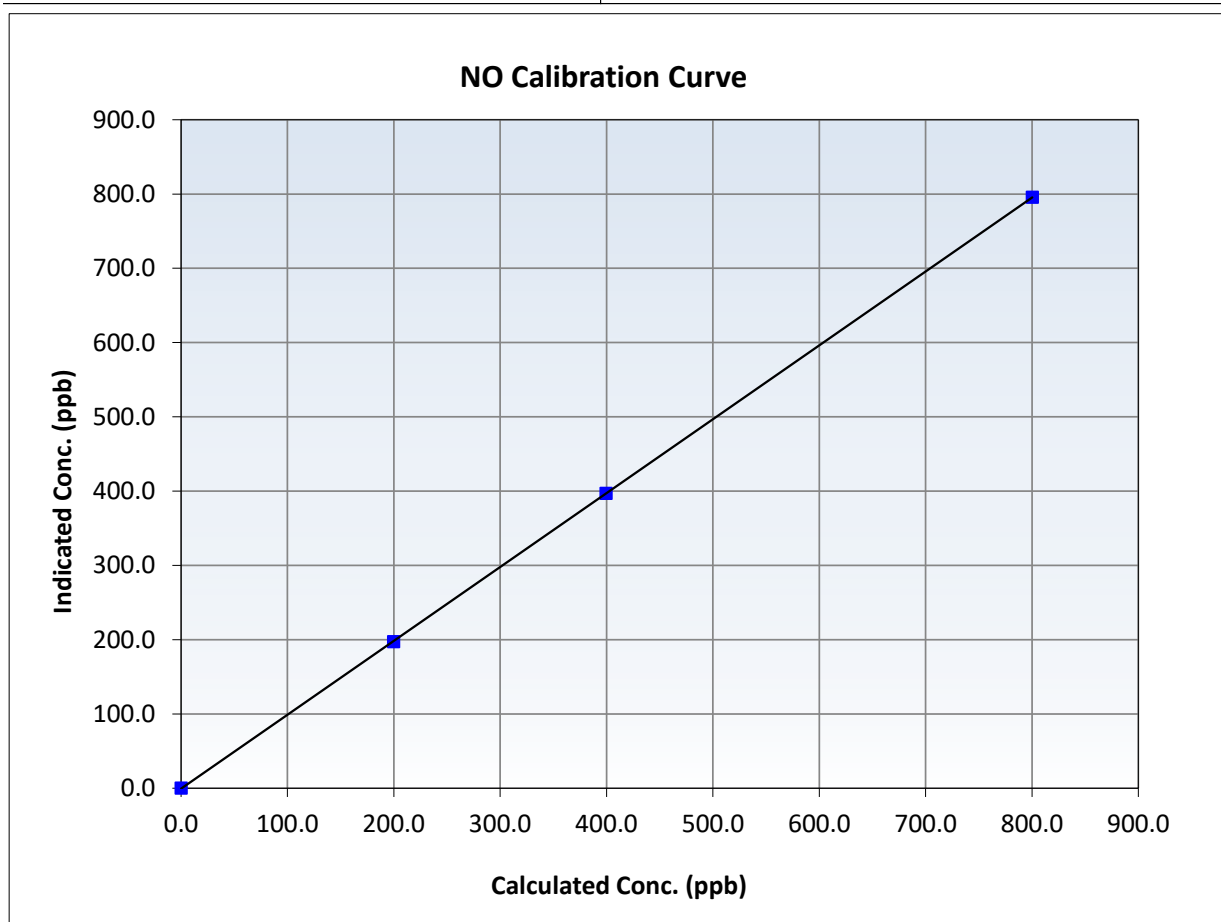
## NO Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 21, 2026
Station Name:	Blackrod	Station Number:	AMS 31
Start Time (MST):	9:38	End Time (MST):	13:44
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

### Calibration Data

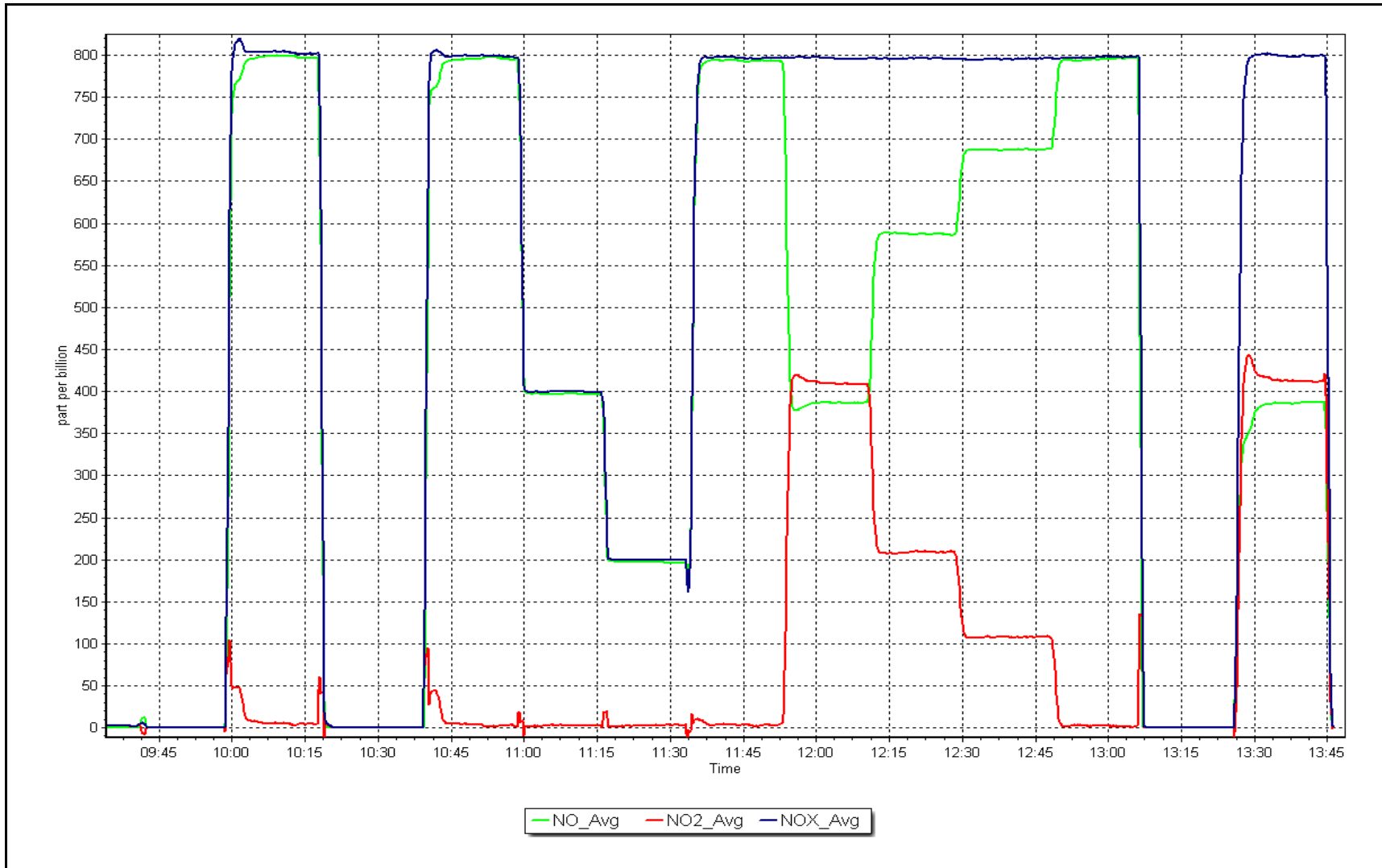
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999996	<i>≥0.995</i>
800.3	795.6	1.0059	Slope	0.994631	<i>0.90 - 1.10</i>
399.5	396.9	1.0066	Intercept	-0.560324	<i>+/-20</i>
199.8	197.2	1.0130			



NO<sub>x</sub> Calibration Plot

Date: May 26, 2026

Location: Blackrod





# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Pihew Point	Station number:	AMS 32
Calibration Date:	May 6, 2026	Last Cal Date:	April 1, 2026
Start time (MST):	8:52	End time (MST):	12:08
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	51.31	ppm	Cal Gas Exp Date:	October 9, 2032
Cal Gas Cylinder #:	SA150969A			
Removed Cal Gas Conc:	51.31	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	Teledyne T700		Serial Number:	3804
Zero Air Gen Model:	Teledyne T701H		Serial Number:	692

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Serial Number:	1180540019
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.996092	1.006372	Backgd or Offset:	5.20	5.24
Calibration intercept:	-0.792056	-0.691971	Coeff or Slope:	1.201	1.201

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.1	----
As found High point	4922	78.0	800.4	804.0	0.995
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	804.1	Previous response	796.5	*% change	0.9%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4922	78.0	800.4	805.0	0.994
Mid point	4961	39.0	400.2	402.4	0.995
Low point	4981	19.5	200.1	199.4	1.003
As left zero	5000	0.0	0.0	0.0	----
As left span	4922	78.0	800.4	806.0	0.993
Average Correction Factor:					0.997

Notes: Changed the inlet filter after as founds. No adjustments made.

Calibration Performed By: Braiden Boutilier



# Wood Buffalo Environmental Association

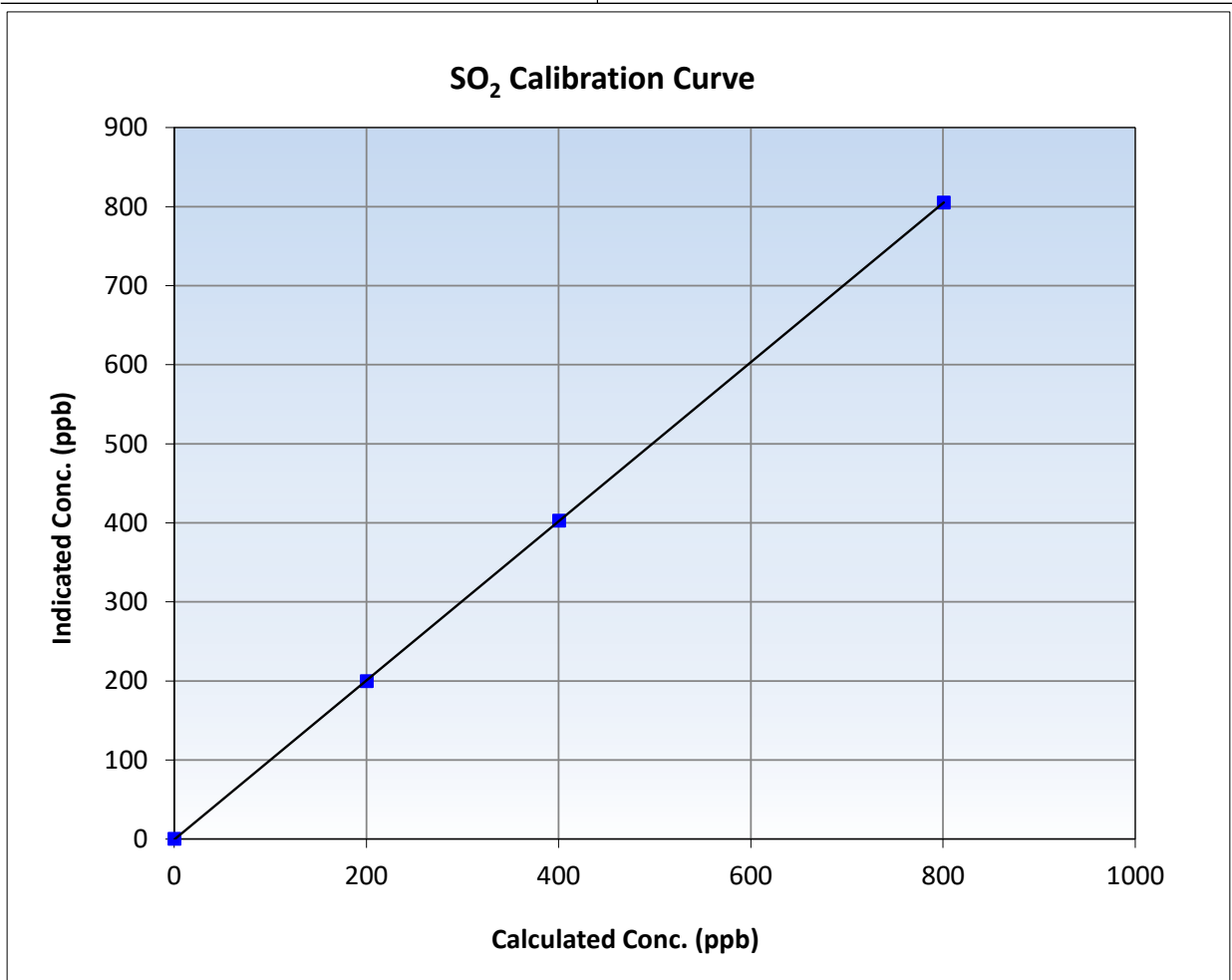
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 1, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	8:52	End Time (MST):	12:08
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1180540019

### Calibration Data

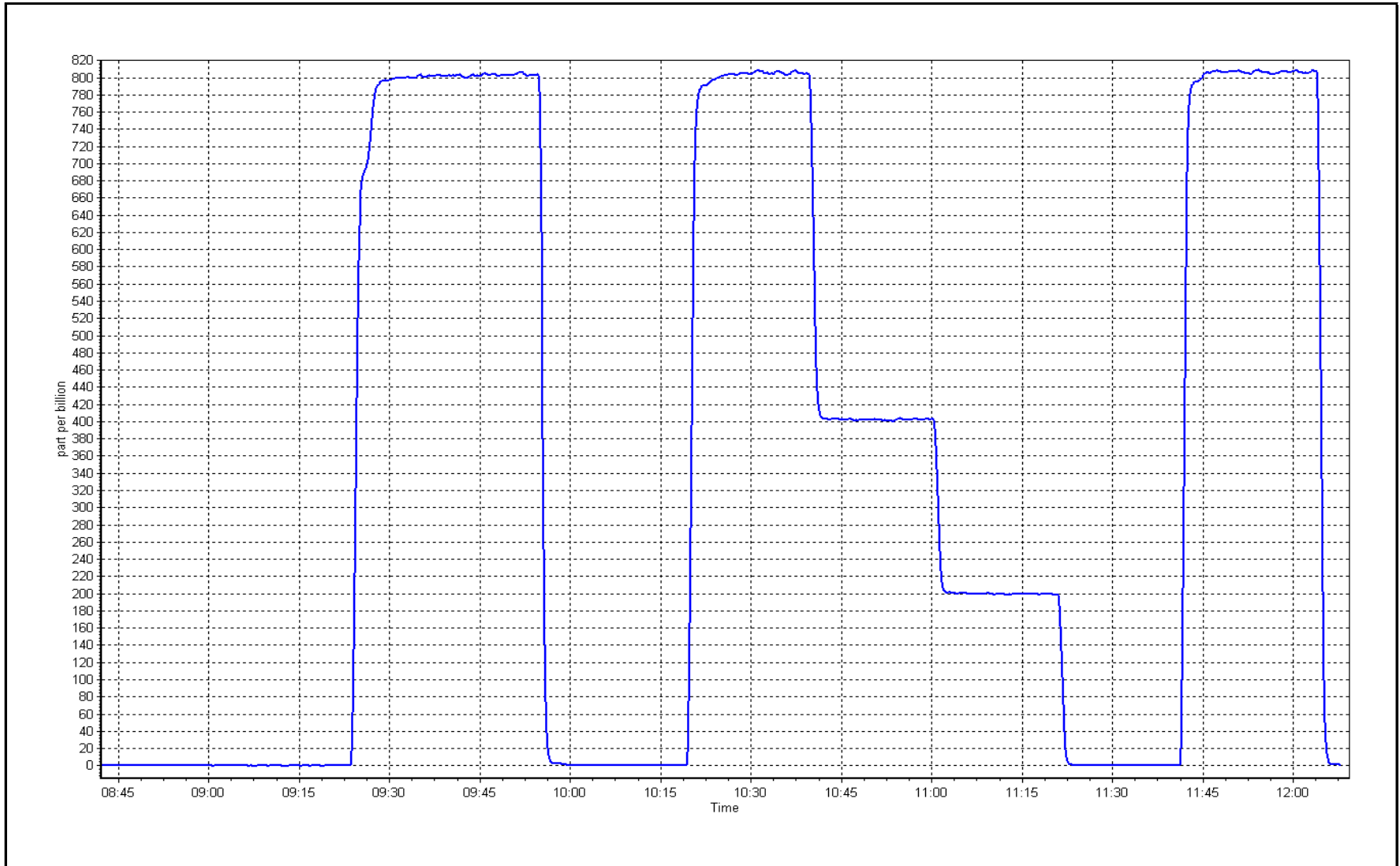
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.1	----	Correlation Coefficient	0.999993	<b>≥0.995</b>
800.4	805.0	0.9943	Slope	1.006372	<b>0.90 - 1.10</b>
400.2	402.4	0.9946	Intercept	-0.691971	<b>+/-30</b>
200.1	199.4	1.0035			



SO2 Calibration Plot

Date: May 6, 2026

Location: Pihew Point





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name: Pihew Point	Station number: AMS 32
Calibration Date: May 22, 2026	Last Cal Date: April 13, 2026
Start time (MST): 9:55	End time (MST): 14:30
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 5.30 ppm	Cal Gas Exp Date: March 19, 2027
Cal Gas Cylinder #: DT0035169	
Removed Cal Gas Conc: 5.30 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #: NA	Diff between cyl:
Calibrator Make/Model: Teledyne T700	Serial Number: 3804
ZAG Make/Model: Teledyne T701H	Serial Number: 692

### Analyzer Information

Analyzer make: Thermo 43iQ-TLE	Analyzer serial #: 1200025752
Converter make: Global G150	Converter serial #: 2024-288
Analyzer Range: 0 - 100 ppb	Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004484	1.009200	Backgd or Offset:	1.68	1.60
Calibration intercept:	-0.062148	-0.102241	Coeff or Slope:	0.918	0.875

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4925	75.5	80.0	83.4	0.959
As found Mid point	4962	37.7	40.0	41.4	0.965
As found Low point	4981	18.9	20.0	20.6	0.973
New cylinder response					
Baseline Corr As found:	83.4	Prev response:	80.32	*% change:	3.7%
Baseline Corr 2nd AF pt:	41.4	AF Slope:	1.043055	AF Intercept:	-0.162355
Baseline Corr 3rd AF pt:	20.6	AF Correlation:	0.999982	<i>* = &gt; +/-5% change initiates investigation</i>	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4925	75.5	80.0	80.7	0.992
Mid point	4962	37.7	40.0	40.2	0.994
Low point	4981	18.9	20.0	20.0	1.002
As left zero	5000	0.0	0.0	0.0	----
As left span	4925	75.5	80.0	80.8	0.990
SO2 Scrubber Check	4921	79.5	794.9	0.0	----
Date of last scrubber change:	30-Jul-25		Ave Corr Factor		0.996
Date of last converter efficiency test:	NA				

Notes: Changed sample inlet filter after as founds. Adjusted span. Scrubber check was done after cal zero, passed.

Calibration Performed By: Param Kaur



# Wood Buffalo Environmental Association

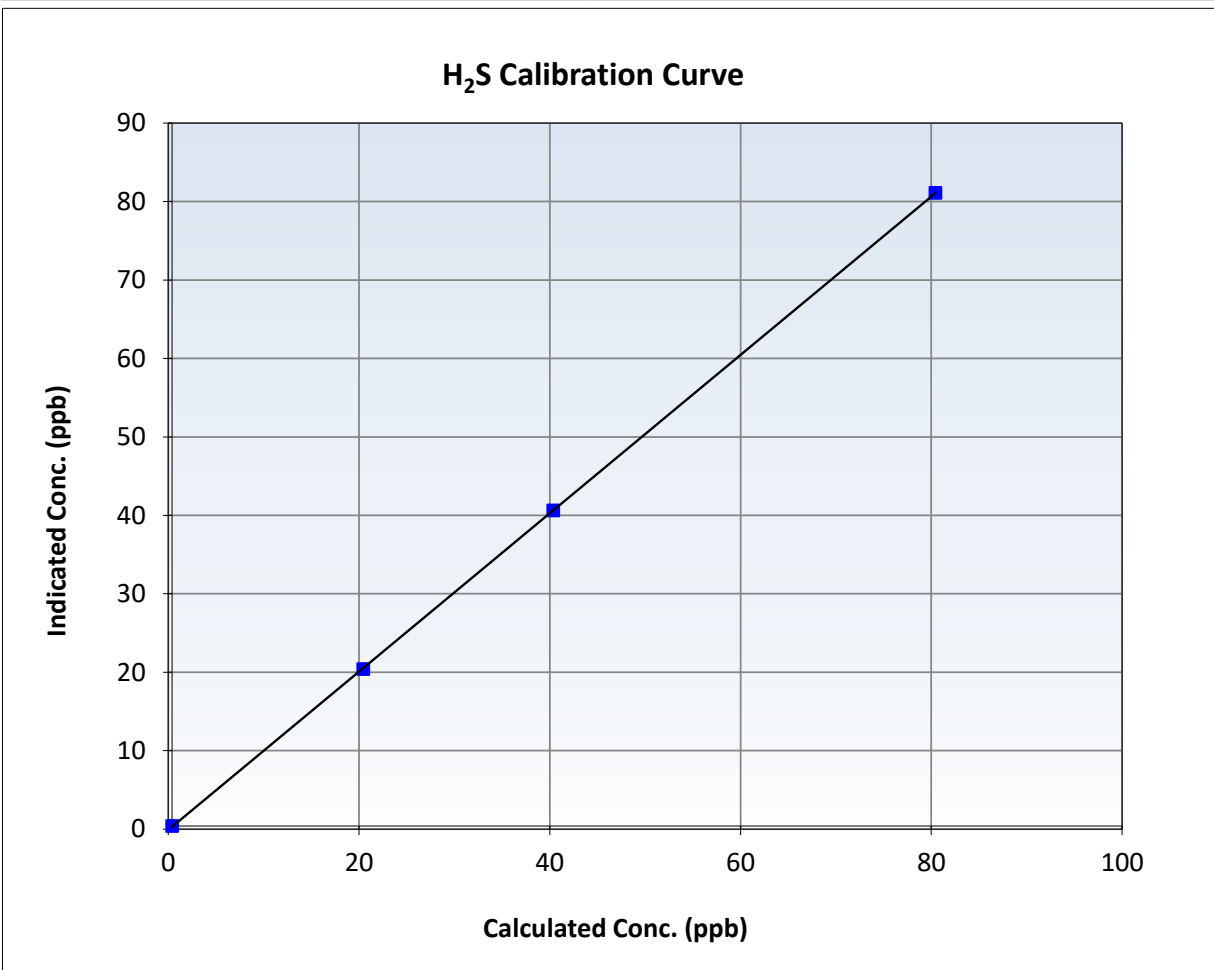
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 13, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	9:55	End Time (MST):	14:30
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1200025752

### Calibration Data

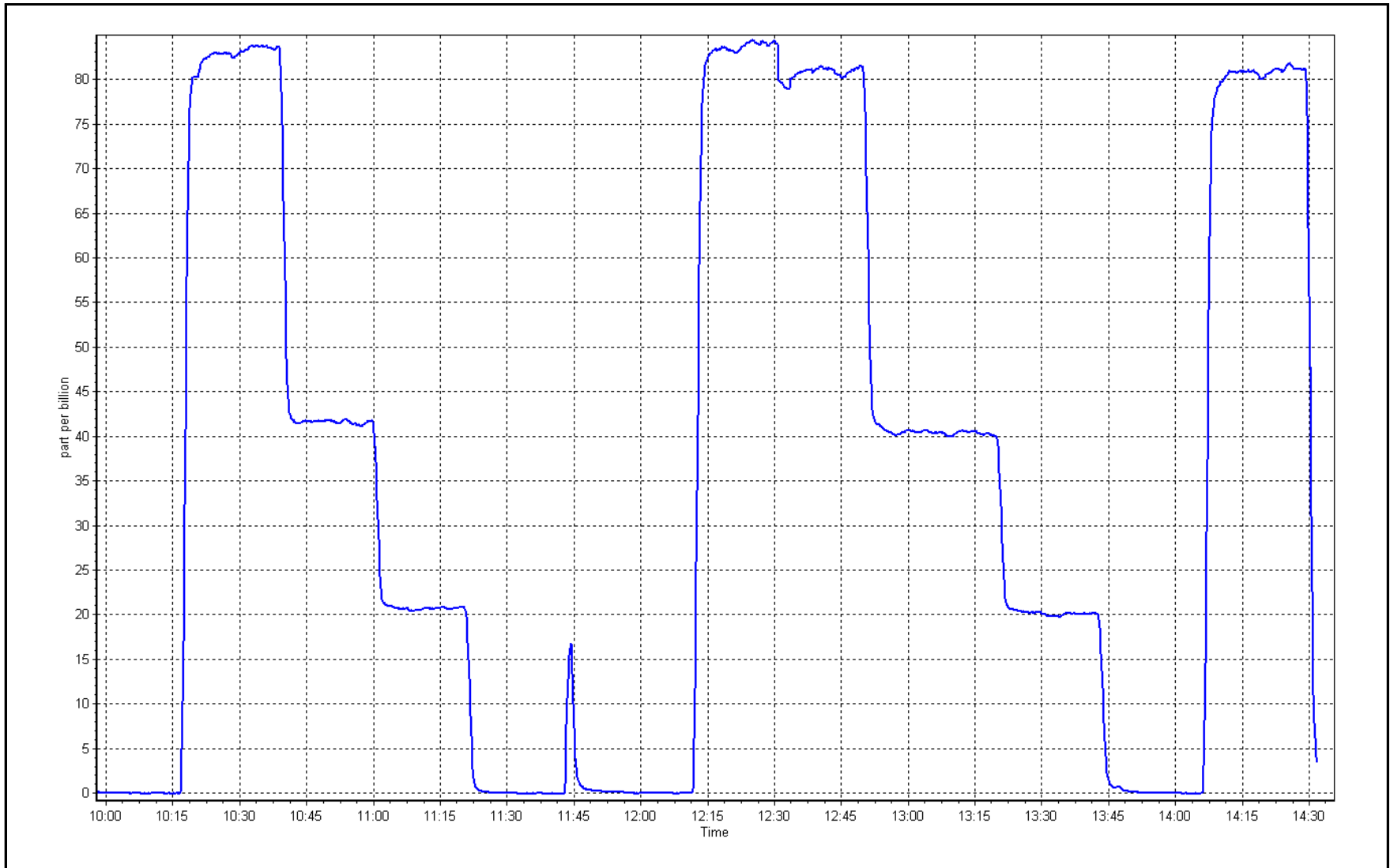
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999992	$\geq 0.995$
80.0	80.7	0.9916	Slope	1.009200	$0.90 - 1.10$
40.0	40.2	0.9941	Intercept	-0.102241	$\pm 3$
20.0	20.0	1.0017			



H<sub>2</sub>S Calibration Plot

Date: May 22, 2026

Location: Pihew Point





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Pihew Point	Station number:	AMS 32
Calibration Date:	May 6, 2026	Last Cal Date:	April 10, 2026
Start time (MST):	8:52	End time (MST):	12:08
Reason:	Routine		

### Calibration Standards

Gas Cert Reference:	SA150969A	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	499.9 ppm	CH4 Equiv Conc.	1061.5 ppm
C3H8 Cal Gas Conc.	204.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	499.9 ppm	CH4 Equiv Conc.	1061.5 ppm
Removed C3H8 Conc.	204.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne T700	Serial Number:	3804
Zero Air Gen model:	Teledyne T701H	Serial Number:	692

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1218153355
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.70E-04	2.70E-04	NMHC SP Ratio:	4.67E-05	4.67E-05
CH4 Retention time:	15.2	15.2	NMHC Peak Area:	187388	187388
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	---
As found High point	4922	78.0	16.56	16.59	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.59	Prev response	16.47	*% change	0.7%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.00	0.00	---
High point	4922	78.0	16.56	16.54	1.001
Mid point	4961	39.0	8.28	8.27	1.001
Low point	4981	19.5	4.14	4.10	1.009
As left zero	5000	0.0	0.00	0.00	---
As left span	4922	78.0	16.56	16.51	1.003
Average Correction Factor					1.004

Notes: Swapped sample inlet filter and hydrogen cylinder after as founds. No adjustments made.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	8.76	8.81	0.994
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.81	Prev response	8.72	*% change	1.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4922	78.0	8.76	8.78	0.998
Mid point	4961	39.0	4.38	4.40	0.995
Low point	4981	19.5	2.19	2.18	1.003
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	8.76	8.76	1.000
Average Correction Factor					0.999

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFZero))
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	7.80	7.78	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.78	Prev response	7.74	*% change	0.5%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)
Calibrator zero	5000	0.0	0.00	0.00	----
High point	4922	78.0	7.80	7.76	1.005
Mid point	4961	39.0	3.90	3.87	1.009
Low point	4981	19.5	1.95	1.92	1.014
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	7.80	7.76	1.005
Average Correction Factor					1.009

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.996403	0.999509
THC Cal Offset:	-0.032235	-0.012235
CH <sub>4</sub> Cal Slope:	0.995443	0.995370
CH <sub>4</sub> Cal Offset:	-0.023723	-0.009723
NMHC Cal Slope:	0.996722	1.002867
NMHC Cal Offset:	-0.006713	-0.002512

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

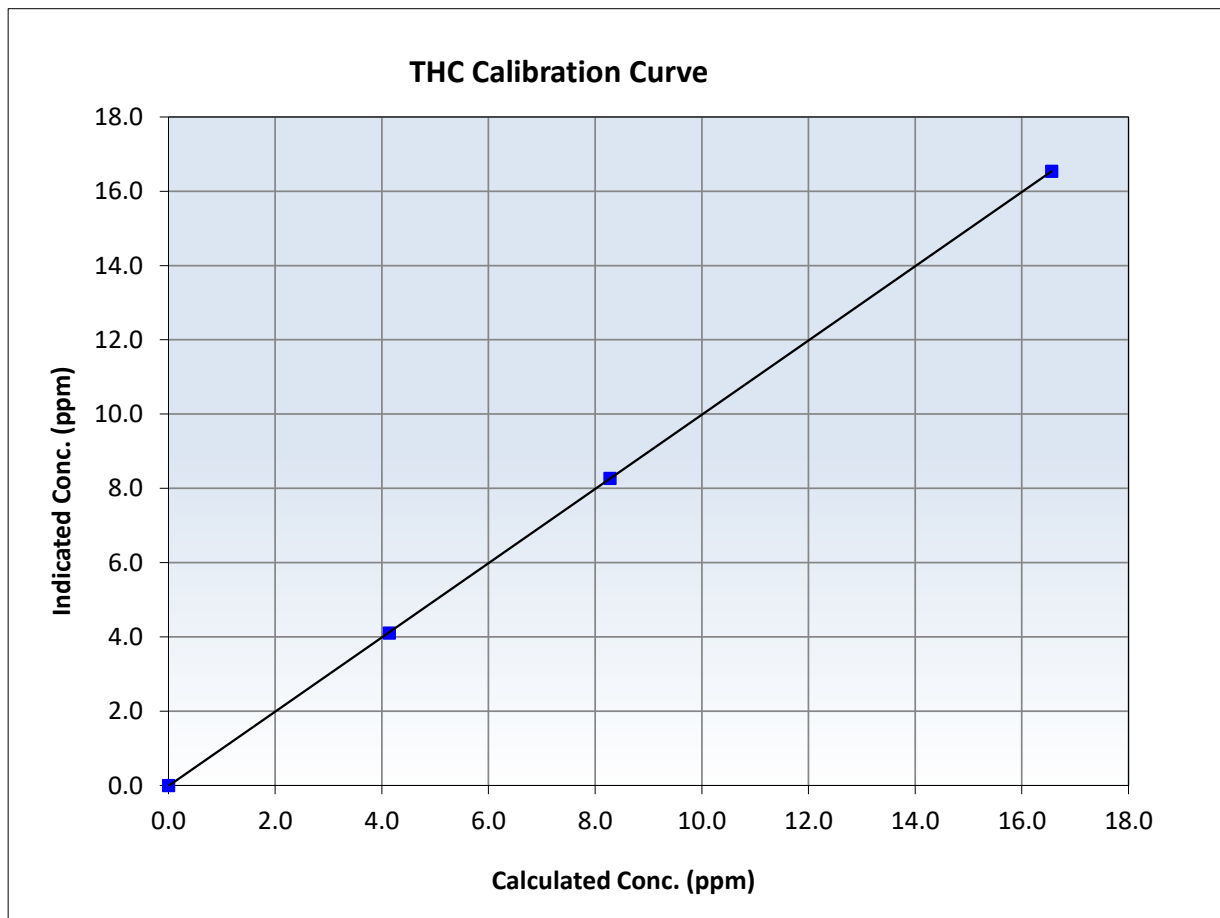
## THC Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 10, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	8:52	End Time (MST):	12:08
Analyzer make:	Thermo 55i	Analyzer serial #:	1218153355

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999996	<i>≥0.995</i>
16.56	16.54	1.0011	Slope	0.999509	<i>0.90 - 1.10</i>
8.28	8.27	1.0011	Intercept	-0.012235	<i>+/-0.5</i>
4.14	4.10	1.0086			





# Wood Buffalo Environmental Association

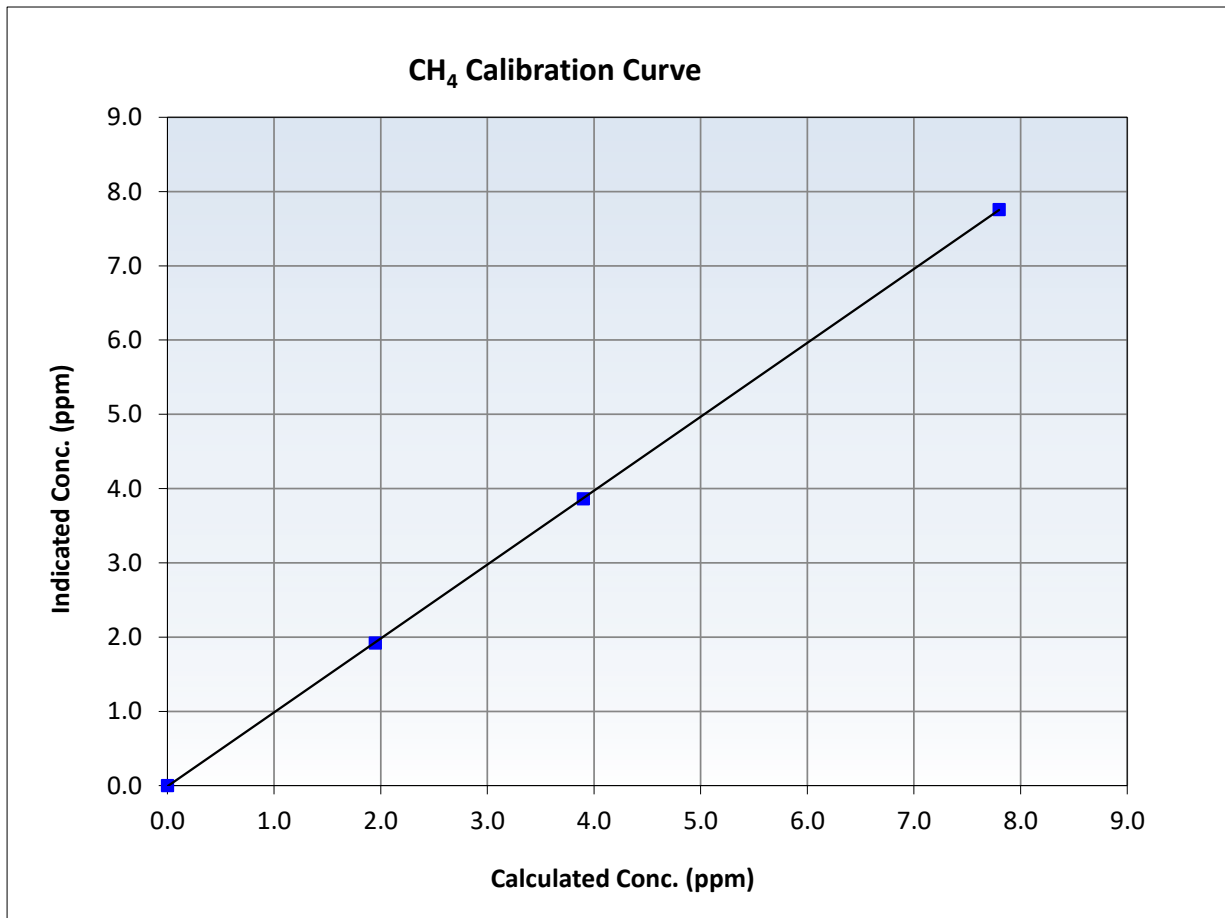
## CH<sub>4</sub> Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 10, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	8:52	End Time (MST):	12:08
Analyzer make:	Thermo 55i	Analyzer serial #:	1218153355

### Calibration Data

Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999993	<i>≥0.995</i>
7.80	7.76	1.0052	Slope	0.995370	<i>0.90 - 1.10</i>
3.90	3.87	1.0089	Intercept	-0.009723	<i>+/-0.5</i>
1.95	1.92	1.0143			





# Wood Buffalo Environmental Association

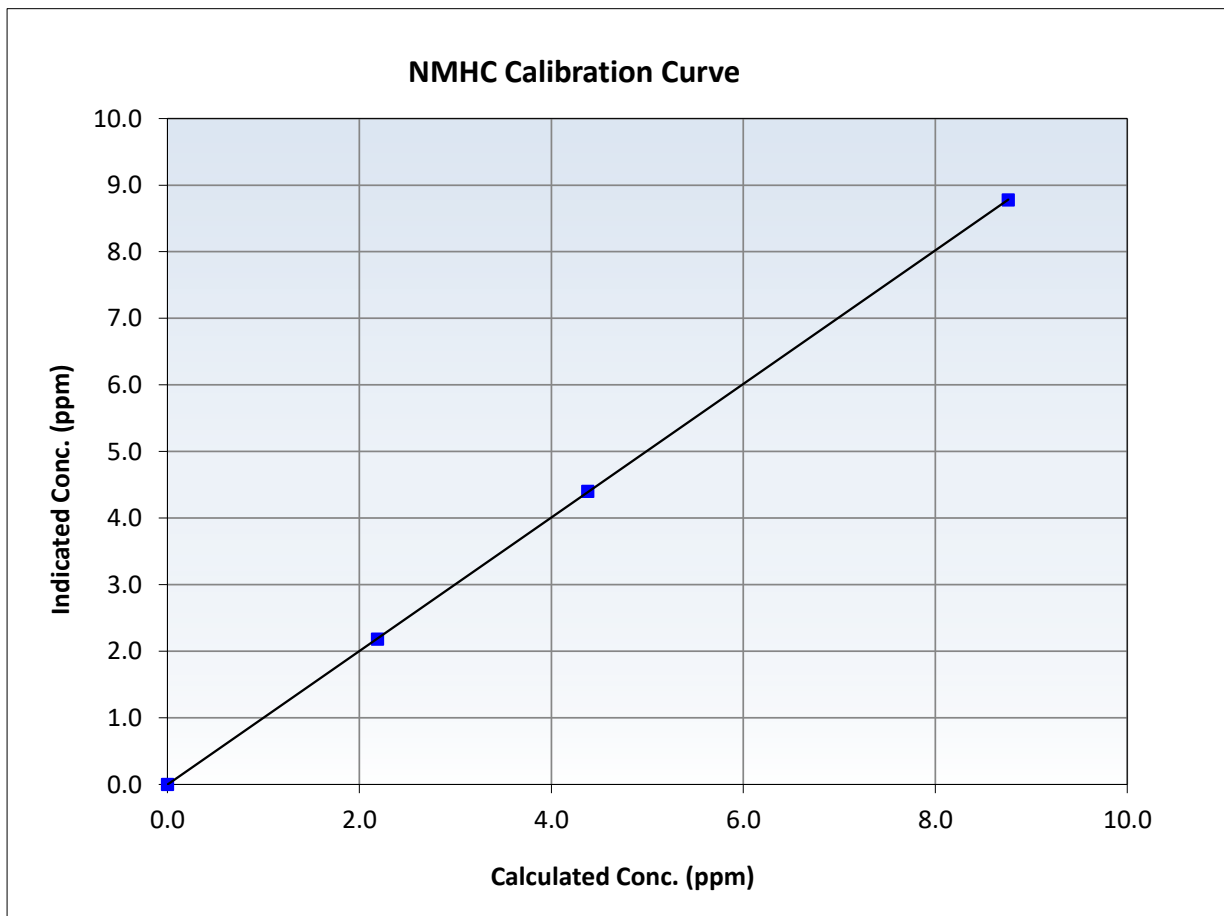
## NMHC Calibration Summary

### Station Information

Calibration Date:	May 6, 2026	Previous Calibration:	April 10, 2026
Station Name:	Pihew Point	Station Number:	AMS 32
Start Time (MST):	8:52	End Time (MST):	12:08
Analyzer make:	Thermo 55i	Analyzer serial #:	1218153355

### Calibration Data

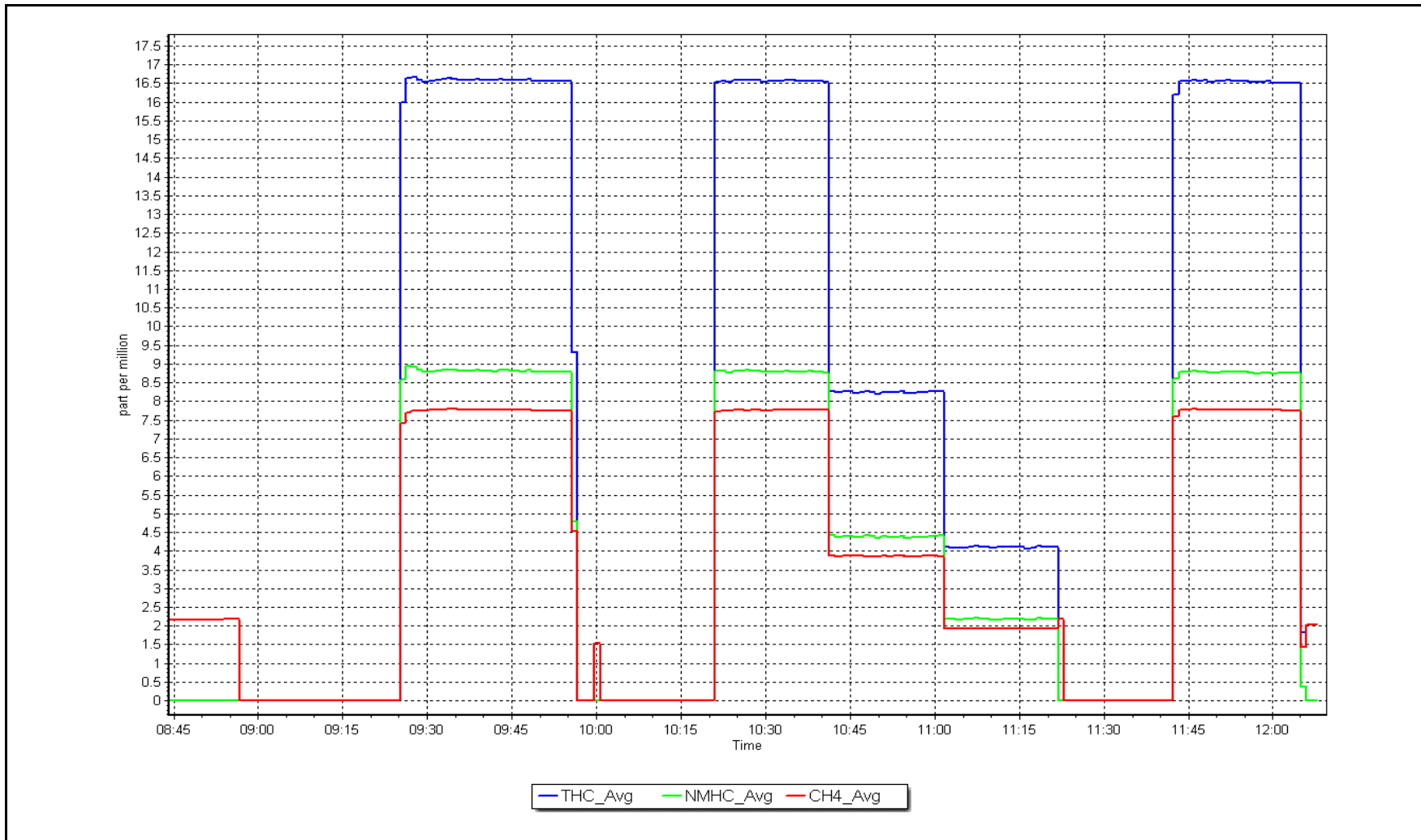
Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.00	0.00	----	Correlation Coefficient	0.999994	<i>≥0.995</i>
8.76	8.78	0.9977	Slope	1.002867	<i>0.90 - 1.10</i>
4.38	4.40	0.9952	Intercept	-0.002512	<i>+/-0.5</i>
2.19	2.18	1.0031			



NMHC Calibration Plot

Date: May 6, 2026

Location: Pihew Point





# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### Station Information

Station Name:	Pihew Point	Station number:	AMS 32
Calibration Date:	May 21, 2026	Last Cal Date:	May 6, 2026
Start time (MST):	8:51	End time (MST):	11:12
Reason:	Cylinder Change		

### Calibration Standards

Gas Cert Reference:	SA150969A	Cal Gas Expiry Date:	October 9, 2032
CH4 Cal Gas Conc.	499.9 ppm	CH4 Equiv Conc.	1061.5 ppm
C3H8 Cal Gas Conc.	204.2 ppm		
Removed Gas Cert:		Removed Gas Expiry:	
Removed CH4 Conc.	499.9 ppm	CH4 Equiv Conc.	1061.5 ppm
Removed C3H8 Conc.	204.2 ppm	Diff between cyl (THC):	
Diff between cyl (CH <sub>4</sub> ):		Diff between cyl (NM):	
Calibrator Model:	Teledyne T700	Serial Number:	3804
Zero Air Gen model:	Teledyne T701H	Serial Number:	692

### Analyzer Information

Analyzer make: Thermo 55i	Analyzer serial #: 1218153355
THC Range: 0 - 20 ppm	NMHC/CH <sub>4</sub> Range: 0 - 10 ppm

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
CH4 SP Ratio:	2.70E-04	2.70E-04	NMHC SP Ratio:	4.67E-05	4.67E-05
CH4 Retention time:	15.2	15.2	NMHC Peak Area:	187388	187388
Zero Chromatogram:	ON	ON	Flat Baseline:	OFF	OFF

### THC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	16.56	16.52	1.002
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	16.52	Prev response	16.54	*% change	-0.1%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### THC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	16.56	16.46	1.006
Average Correction Factor					1.006

Notes: Swapped nitrogen cylinder.



# Wood Buffalo Environmental Association

## THC / CH<sub>4</sub> / NMHC Calibration Report

### NMHC As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	8.76	8.78	0.998
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	8.78	Prev response	8.78	*% change	0.0%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### NMHC Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	8.76	8.72	1.005
Average Correction Factor					

### CH<sub>4</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.00	0.00	----
As found High point	4922	78.0	7.80	7.74	1.008
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr AF:	7.74	Prev response	7.75	*% change	-0.2%
Baseline Corr 2nd AF:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### CH<sub>4</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppm) (Cc)	Indicated concentration (ppm) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero					
High point					
Mid point					
Low point					
As left zero	5000	0.0	0.00	0.00	----
As left span	4922	78.0	7.80	7.73	1.008
Average Correction Factor					

### Calibration Statistics

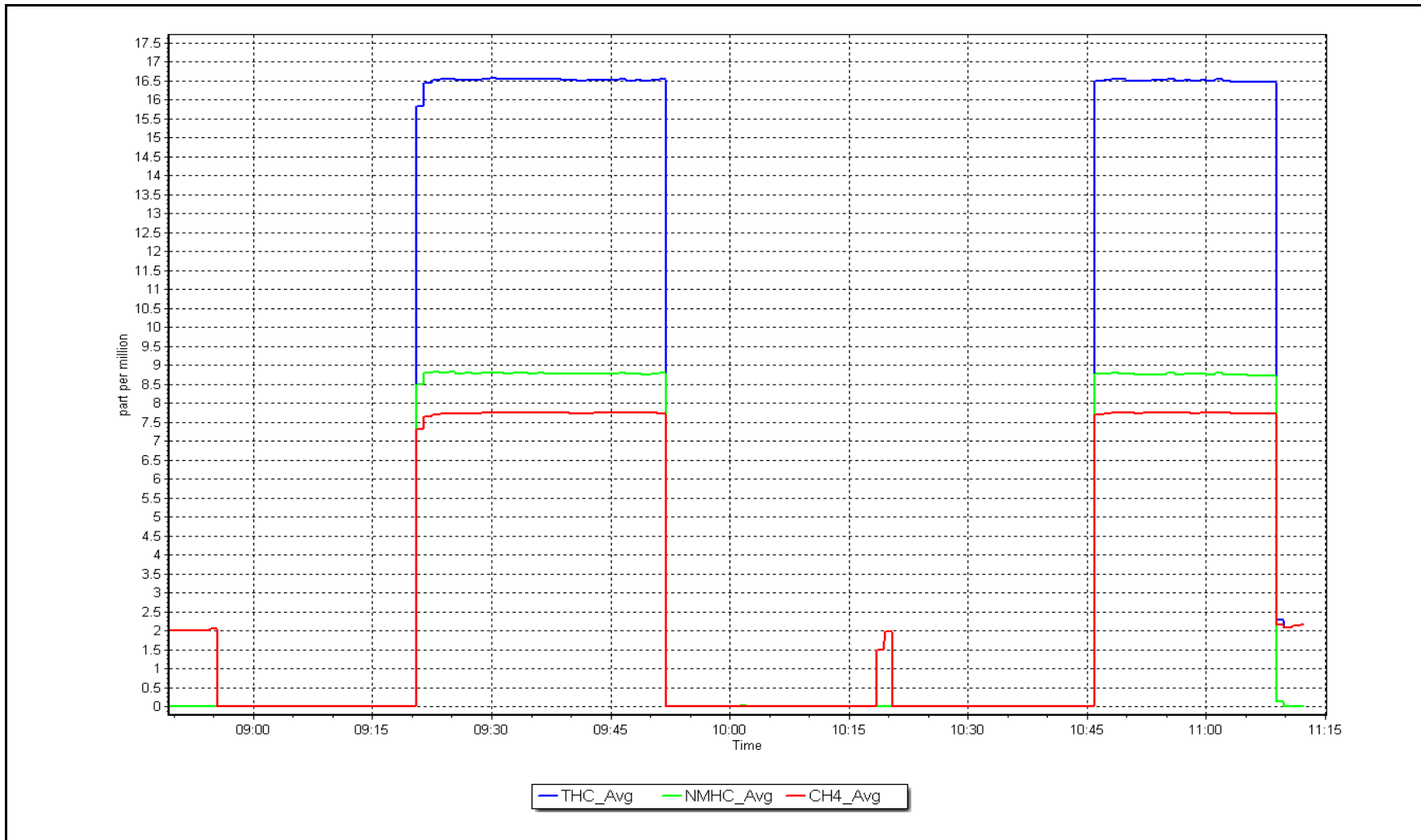
	<u>Start</u>	<u>Finish</u>
THC Cal Slope:	0.999509	
THC Cal Offset:	-0.012235	
CH <sub>4</sub> Cal Slope:	0.995370	
CH <sub>4</sub> Cal Offset:	-0.009723	
NMHC Cal Slope:	1.002867	
NMHC Cal Offset:	-0.002512	

Calibration Performed By: Braiden Boutillier

NMHC Calibration Plot

Date: May 21, 2026

Location: Pihew Point





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS33**  
**MONDAY CREEK**  
**MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Monday Creek	Station number:	AMS 33
Calibration Date:	May 25, 2026	Last Cal Date:	April 9, 2026
Start time (MST):	10:48	End time (MST):	14:18
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.62	ppm	Cal Gas Exp Date:	March 10, 2031
Cal Gas Cylinder #:	EB0008522			
Removed Cal Gas Conc:	50.62	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA		Diff between cyl:	
Calibrator Model:	Teledyne T700		Serial Number:	3253
Zero Air Gen Model:	Teledyne T701H		Serial Number:	832

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	1152430005
Analyzer Range:	0- 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.997187	0.995447	Backgd or Offset:	32.5	32.4
Calibration intercept:	0.381758	0.441295	Coeff or Slope:	1.000	0.981

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.4	----
As found High point	4921	79.1	800.8	810.8	0.988
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	810.4	Previous response	798.9	*% change	1.4%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.2	----
High point	4921	79.1	800.8	797.6	1.004
Mid point	4961	39.5	399.9	398.2	1.004
Low point	4980	19.8	200.5	200.5	1.000
As left zero	5000	0.0	0.0	0.3	----
As left span	4921	79.1	800.8	795.6	1.007
Average Correction Factor:					1.003

Notes: Sample inlet filter was changed after as founds. Adjusted the zero and span.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

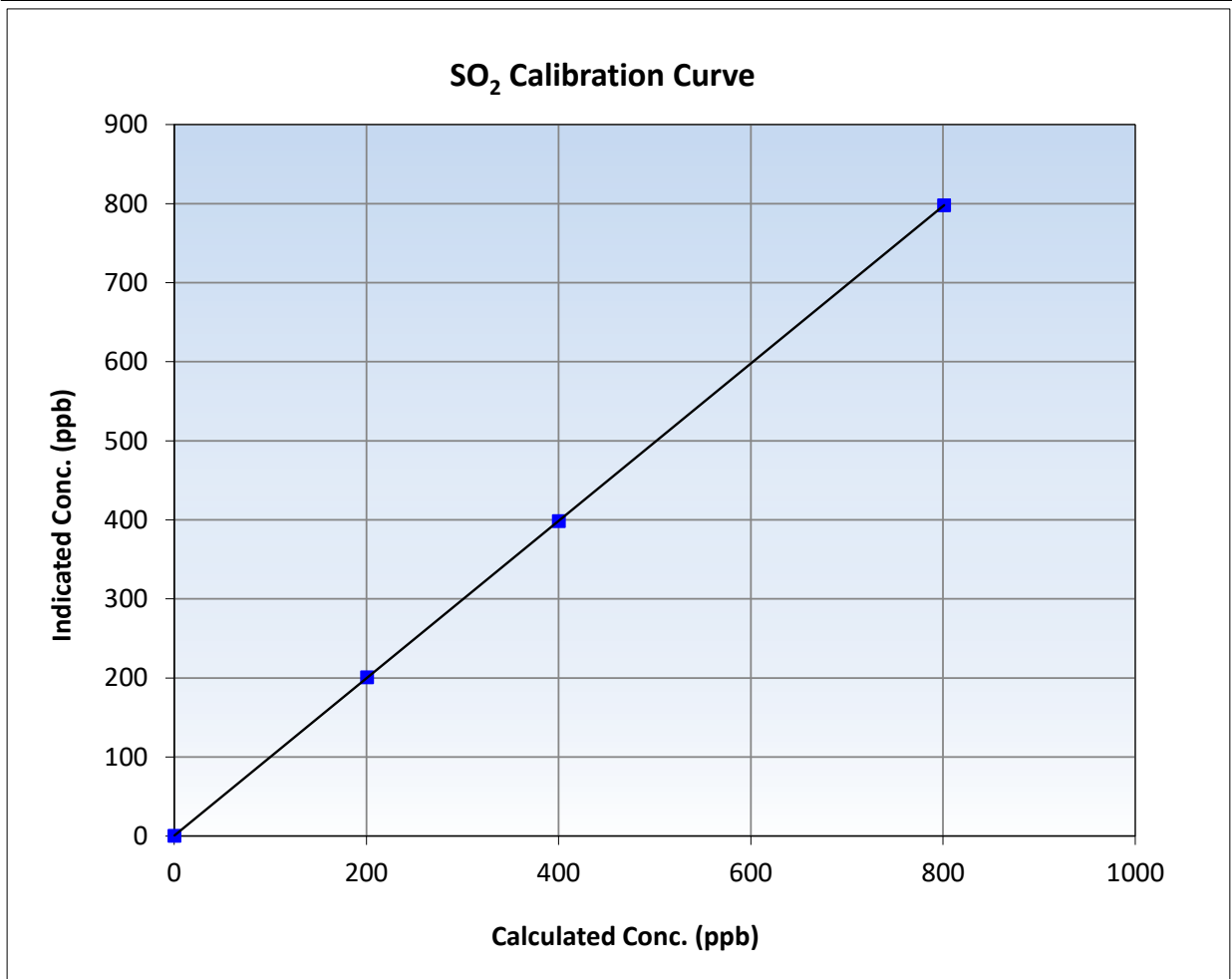
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 9, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	10:48	End Time (MST):	14:18
Analyzer make:	Thermo 43i	Analyzer serial #:	1152430005

### Calibration Data

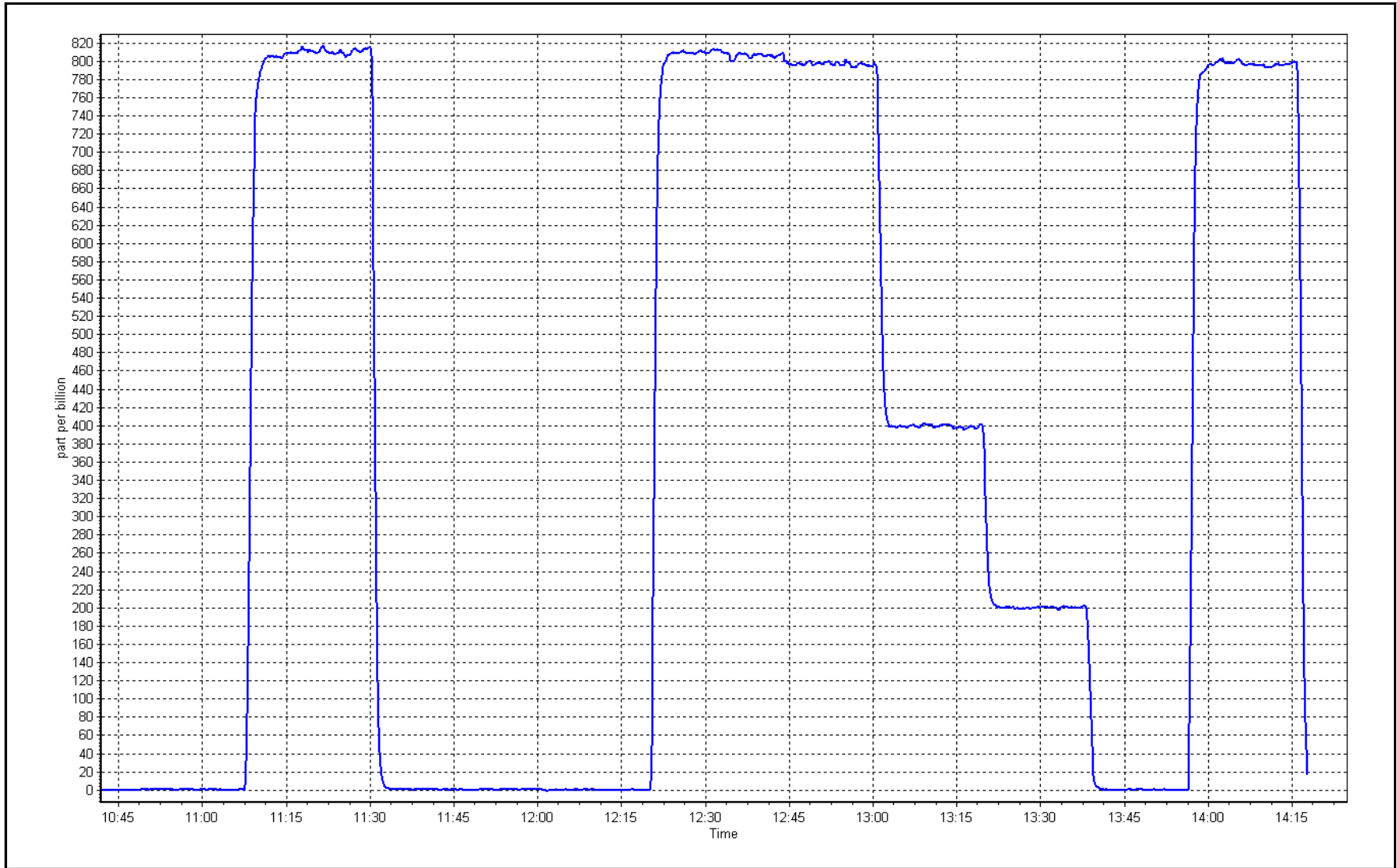
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.2	----	Correlation Coefficient	0.999999	<b>≥0.995</b>
800.8	797.6	1.0040	Slope	0.995447	<b>0.90 - 1.10</b>
399.9	398.2	1.0042	Intercept	0.441295	<b>+/-30</b>
200.5	200.5	0.9998			



SO2 Calibration Plot

Date: May 25, 2026

Location: Monday Creek





# Wood Buffalo Environmental Association

## H2S Calibration Report

### Station Information

Station Name: Monday Creek	Station number: AMS 33
Calibration Date: May 26, 2026	Last Cal Date: April 27, 2026
Start time (MST): 11:15	End time (MST): 15:23
Reason: Routine	

### Calibration Standards

Cal Gas Concentration: 5.05 ppm	Cal Gas Exp Date: November 15, 2026
Cal Gas Cylinder #: DT0014831	
Removed Cal Gas Conc: 5.05 ppm	Rem Gas Exp Date: NA
Removed Gas Cyl #: NA	Diff between cyl:
Calibrator Make/Model: Teledyne API T700	Serial Number: 3253
ZAG Make/Model: Teledyne T701H	Serial Number: 832

### Analyzer Information

Analyzer make: Thermo 43iQTL	Analyzer serial #: 12333331547
Converter make: Global 150	Converter serial #: 2022-196
Analyzer Range: 0 - 100 ppb	Converter Temp: 325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.003855	1.005855	Backgd or Offset:	1.76	1.76
Calibration intercept:	-0.181607	-0.101604	Coeff or Slope:	1.081	1.081

### H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.3	----
As found High point	4921	79.2	80.0	82.8	0.963
As found Mid point	4960	39.6	40.0	40.9	0.971
As found Low point	4980	19.8	20.0	20.3	0.971
New cylinder response					
Baseline Corr As found:	83.1	Prev response:	80.12	*% change:	3.6%
Baseline Corr 2nd AF pt:	41.2	AF Slope:	1.039145	AF Intercept:	-0.441651
Baseline Corr 3rd AF pt:	20.6	AF Correlation:	0.999977	<i>* = &gt; +/-5% change initiates investigation</i>	

### H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4921	79.2	80.0	80.4	0.995
Mid point	4960	39.6	40.0	40.0	1.000
Low point	4980	19.8	20.0	20.1	0.995
As left zero	5000	0.0	0.0	-0.1	----
As left span	4921	79.2	80.0	80.0	1.000
SO2 Scrubber Check	4921	79.1	791.0	0.0	----
Date of last scrubber change:	11-Apr-24			Ave Corr Factor	<b>0.997</b>
Date of last converter efficiency test:	October 22, 2025				

Notes: Sample inlet filter was changed after the multi-point as founds. SO2 scrubber check passed. No adjustments made.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

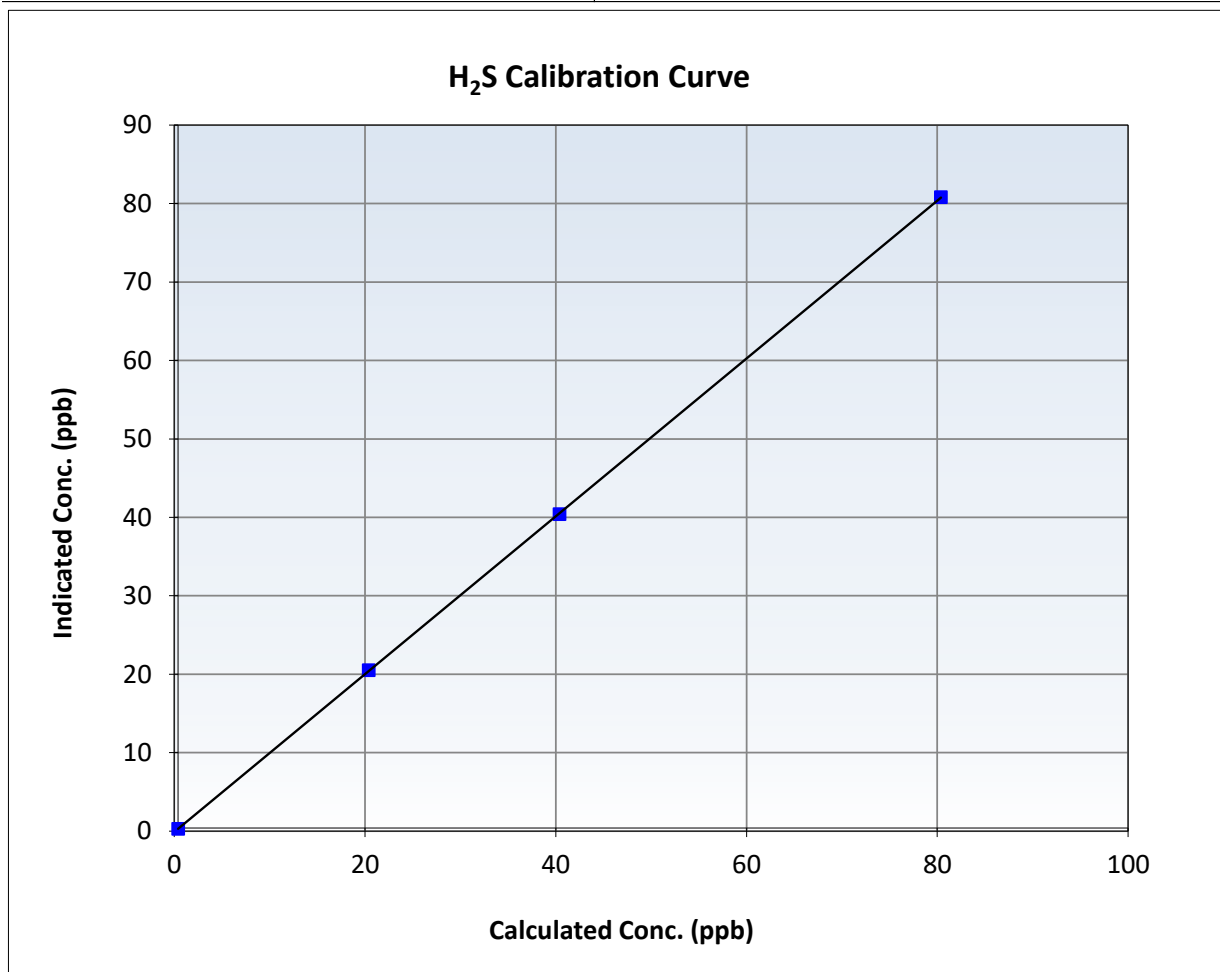
## H2S Calibration Summary

### Station Information

Calibration Date:	May 26, 2026	Previous Calibration:	April 27, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	11:15	End Time (MST):	15:23
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12333331547

### Calibration Data

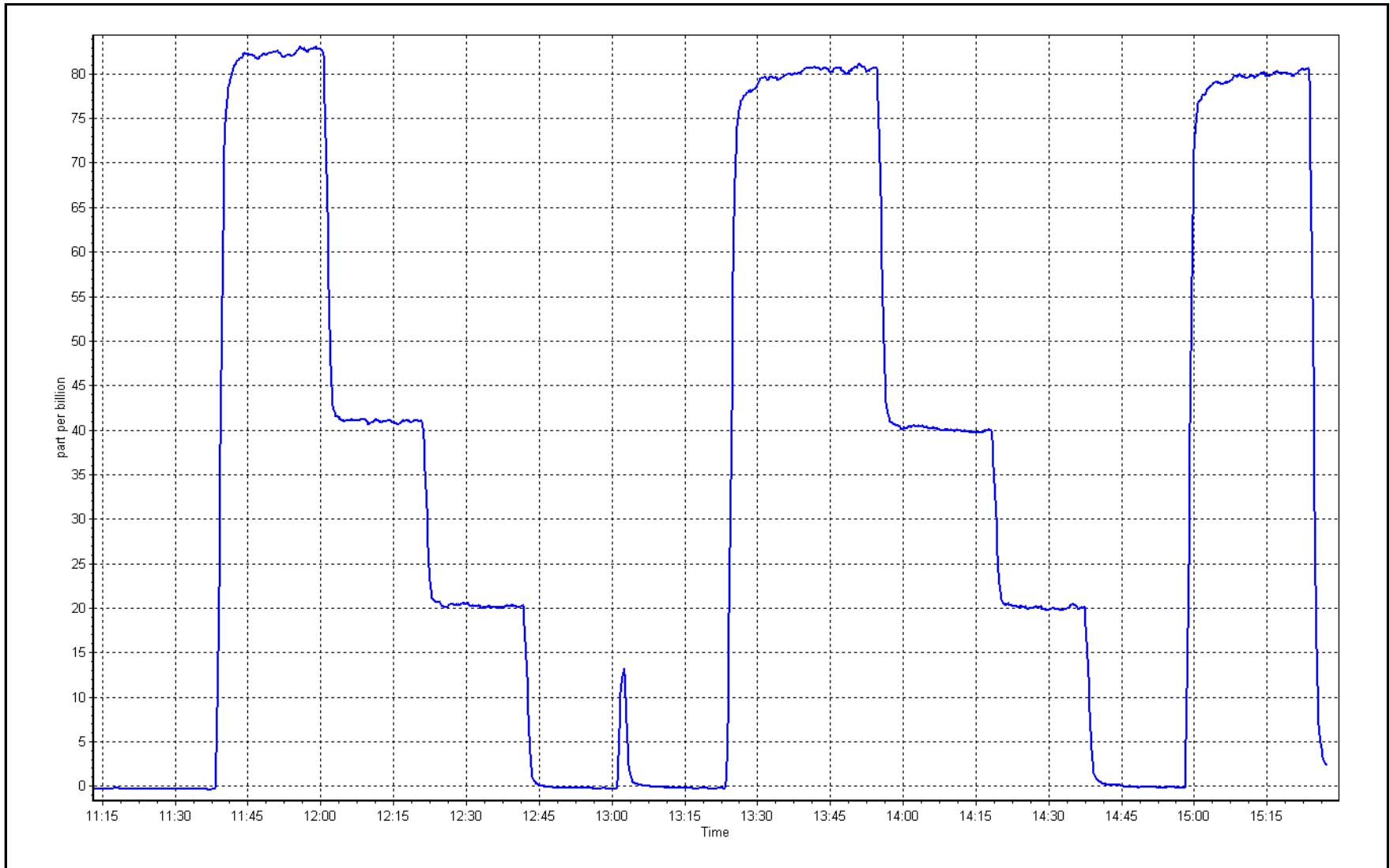
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999992	$\geq 0.995$
80.0	80.4	0.9949	Slope	1.005855	$0.90 - 1.10$
40.0	40.0	1.0000	Intercept	-0.101604	$\pm 3$
20.0	20.1	0.9950			



H2S Calibration Plot

Date: May 26, 2026

Location: Monday Creek





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Monday Creek  
 Station number: AMS 33  
 Calibration Date: May 28, 2026  
 Last Cal Date: April 10, 2026  
 Start time (MST): 10:34  
 End time (MST): 14:52  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: CC755290  
 NOX Cal Gas Conc: 48.90 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 48.90 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701H  
 Cal Gas Expiry Date: March 11, 2031  
 NO Cal Gas Conc: 48.70 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 48.70 ppm  
 NO gas Diff:  
 Serial Number: 3253  
 Serial Number: 832

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	0.1	-0.1	0.2	----	----
AF High point	4918	82.1	802.9	799.6	3.3	803.7	799.2	4.4	0.9992	1.0004
AF Mid point										
AF Low point										
New cyl resp										

Previous Response	NO <sub>x</sub> = 804.9 ppb	NO = 803.8 ppb	<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.2%
Baseline Corr 1st pt	NO <sub>x</sub> = 803.6 ppb	NO = 799.3 ppb	<u>As Found Statistics</u>		*Percent Change	NO = -0.6%
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb	NO = NA ppb	As found	NO r <sup>2</sup> :	NO SI:	NO Int:
			As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1170050148

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.001318	0.999838
NO <sub>x</sub> Cal Offset:	0.926647	1.246401
NO Cal Slope:	1.005401	1.002844
NO Cal Offset:	-0.113382	0.206279
NO <sub>2</sub> Cal Slope:	0.995968	0.995820
NO <sub>2</sub> Cal Offset:	-0.772513	-0.434473

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.675	0.675	NO bkgnd or offset:	1.3	1.3
NOX coeff or slope:	0.985	0.985	NOX bkgnd or offset:	1.4	1.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	158.7	158.4

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.2	0.1	0.2	----	----
High point	4918	82.1	802.9	799.6	3.3	803.5	802.0	1.5	0.9993	0.9971
Mid point	4959	41.1	401.9	400.3	1.6	403.7	401.9	1.8	0.9957	0.9960
Low point	4980	20.5	200.5	199.7	0.8	202.7	200.4	2.3	0.9890	0.9963
As left zero	5000	0.0	0.0	0.0	0.0	0.2	0.0	0.2	----	----
As left span	4918	82.1	802.9	394.9	408.0	803.6	394.9	408.7	0.9992	1.0000
Average Correction Factor									0.9946	0.9964

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.2	----	----
High GPT point	800.7	391.1	412.9	411.0	1.0046	99.5%
Mid GPT point	800.7	599.7	204.3	202.8	1.0073	99.3%
Low GPT point	800.7	700.2	103.8	102.2	1.0155	98.5%
Average Correction Factor					1.0091	99.1%

Notes: The sample inlet filter was changed after the as founds. No adjustments made.

Calibration Performed By: Rene Chamberland



# Wood Buffalo Environmental Association

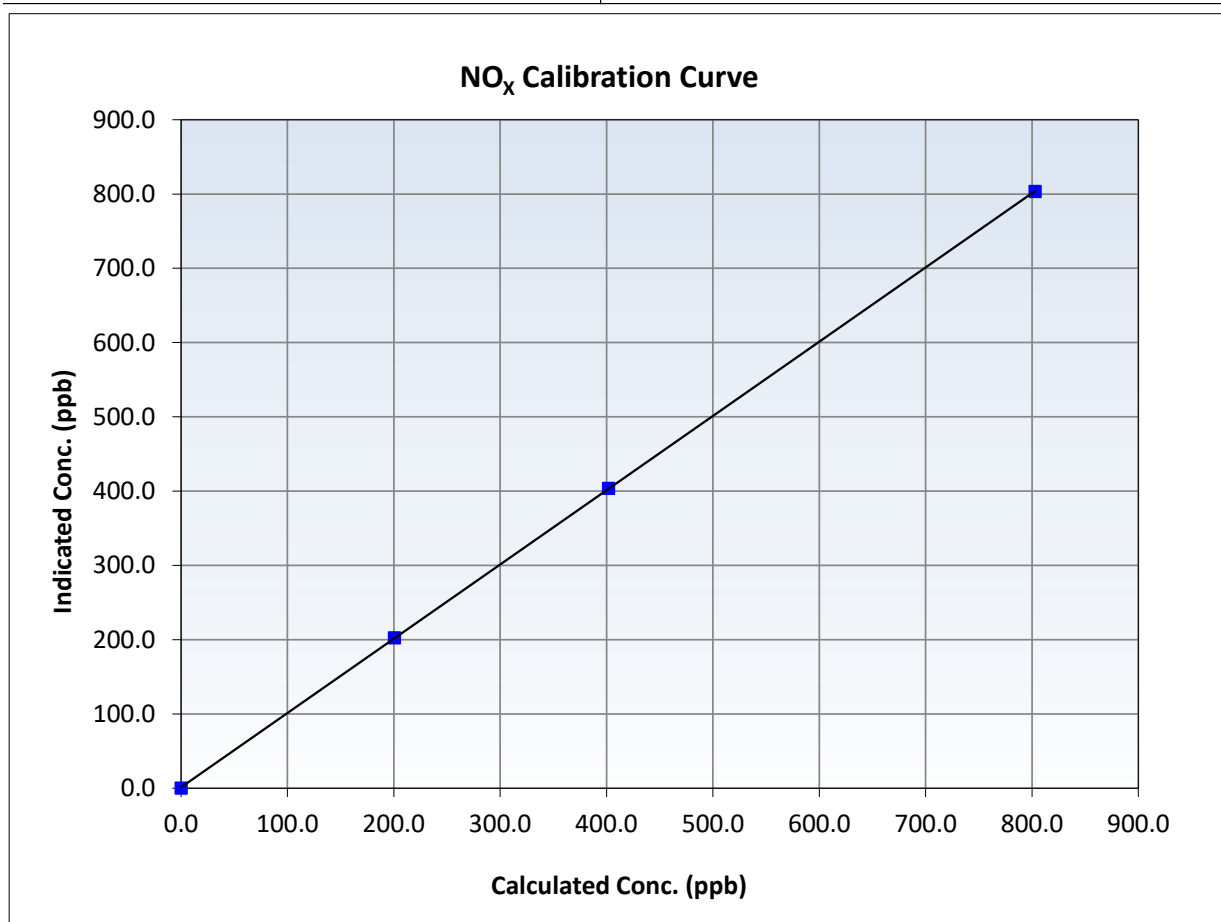
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 10, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	10:34	End Time (MST):	14:52
Analyzer make:	Thermo 42i	Analyzer serial #:	1170050148

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999992	≥0.995
802.9	803.5	0.9993	Slope	0.999838	0.90 - 1.10
401.9	403.7	0.9957	Intercept	1.246401	+/-20
200.5	202.7	0.9890			





# Wood Buffalo Environmental Association

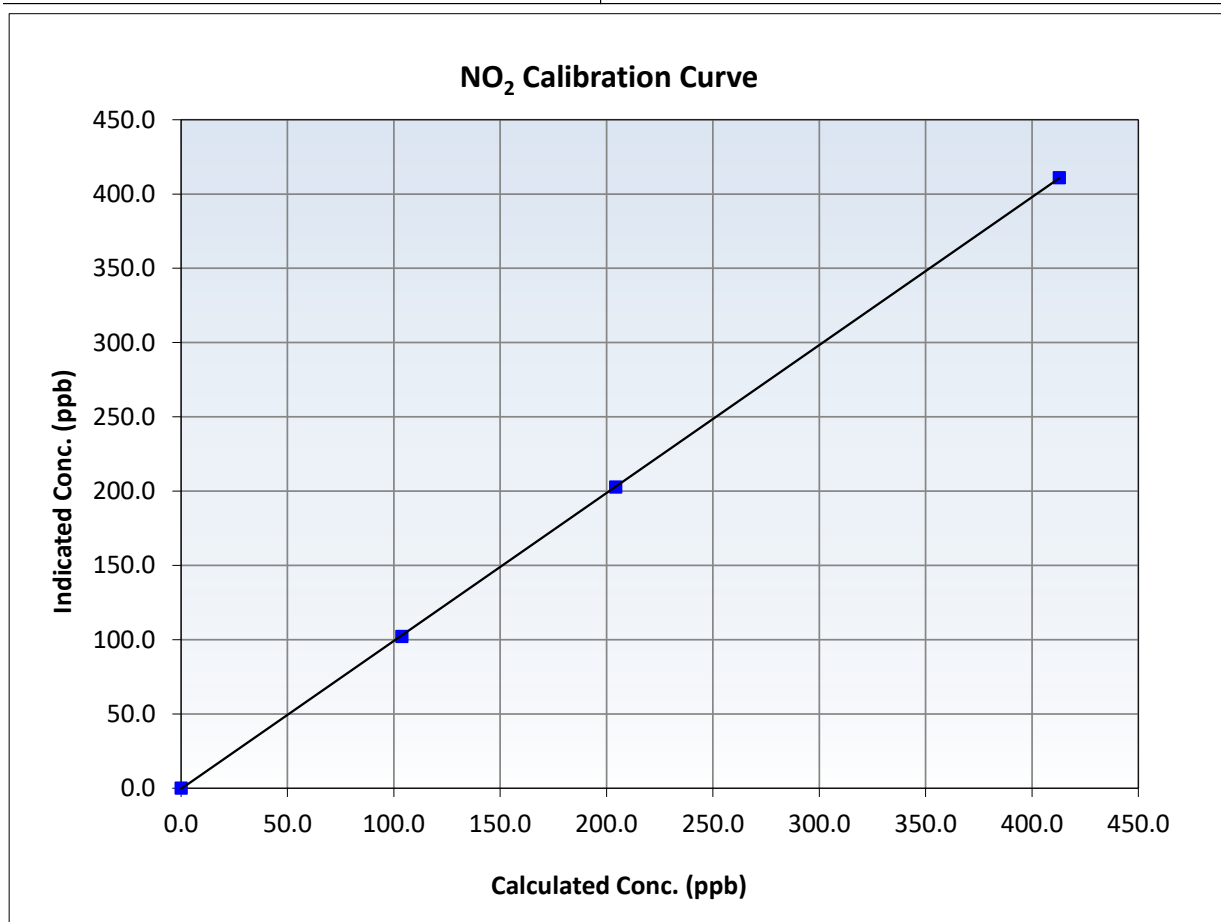
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 10, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	10:34	End Time (MST):	14:52
Analyzer make:	Thermo 42i	Analyzer serial #:	1170050148

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.2	----	Correlation Coefficient	0.999989	≥0.995
412.9	411.0	1.0046	Slope	0.995820	0.90 - 1.10
204.3	202.8	1.0073	Intercept	-0.434473	+/-20
103.8	102.2	1.0155			





# Wood Buffalo Environmental Association

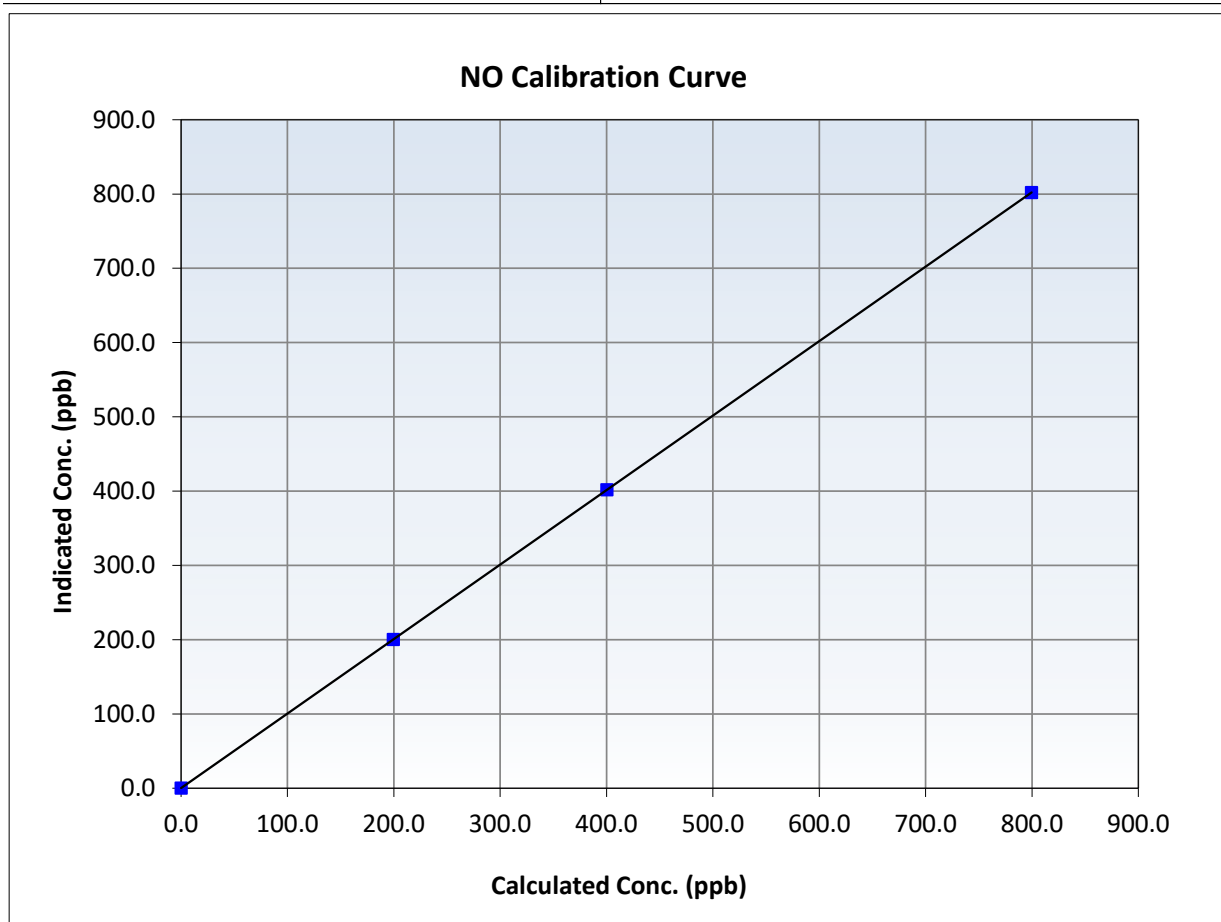
## NO Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 10, 2026
Station Name:	Monday Creek	Station Number:	AMS 33
Start Time (MST):	10:34	End Time (MST):	14:52
Analyzer make:	Thermo 42i	Analyzer serial #:	1170050148

### Calibration Data

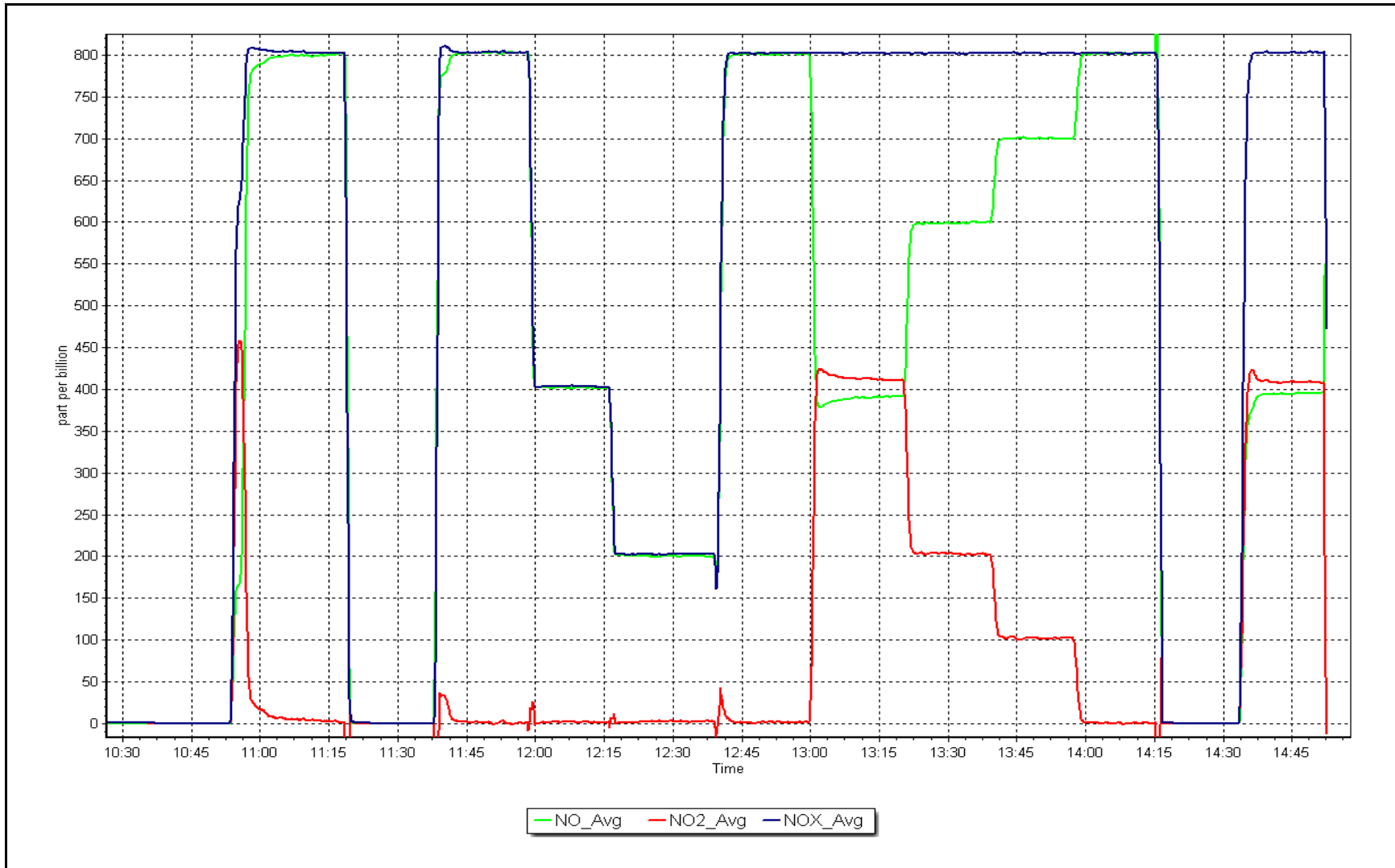
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	1.000000	≥0.995
799.6	802.0	0.9971	Slope	1.002844	0.90 - 1.10
400.3	401.9	0.9960	Intercept	0.206279	+/-20
199.7	200.4	0.9963			



NO<sub>x</sub> Calibration Plot

Date: May 28, 2026

Location: Monday Creek





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

### **AMS34 HANGINGSTONE EXPANSION MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2025



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Hangingsstone Expansion	Station number: AMS 34
Calibration Date:	May 22, 2026	Last Cal Date: April 1, 2026
Start time (MST):	5:40	End time (MST): 8:41
Reason:	Install	

### Calibration Standards

Cal Gas Concentration:	49.37 ppm	Cal Gas Exp Date: January 5, 2029
Cal Gas Cylinder #:	CC303094	
Removed Cal Gas Conc:	49.37 ppm	Rem Gas Exp Date:
Removed Gas Cyl #:	N/A	Diff between cyl:
Calibrator Model:	Teledyne API T700	Serial Number: 2659
Zero Air Gen Model:	Teledyne API 701	Serial Number: 953

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number: 1173410001
Analyzer Range:	0 - 1000 ppb	

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.004543	1.000328	Backgd or Offset:	15.5	14.9
Calibration intercept:	-1.180492	-0.880053	Coeff or Slope:	1.189	1.143

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.7	----
As found High point	4919	81.0	799.8	828.9	0.966
As found Mid point	4959	40.5	399.9	412.8	0.970
As found Low point	4980	20.3	200.4	205.6	0.978
New cylinder response					
Baseline Corr As found:	828.2	Previous response	802.2	*% change	3.1%
Baseline Corr 2nd AF pt:	412.1	AF Slope:	1.036359	AF Intercept:	-0.767277
Baseline Corr 3rd AF pt:	204.9	AF Correlation:	0.999986	<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.7	----
High point	4919	81.0	799.8	800.1	1.000
Mid point	4959	40.5	399.9	398.0	1.005
Low point	4980	20.3	200.4	198.3	1.011
As left zero	5000	0.0	0.0	0.9	----
As left span	4919	81.0	799.8	800.3	0.999
Average Correction Factor:					1.005

Notes: Pump flow was low. Pump changed out. Span adjusted.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

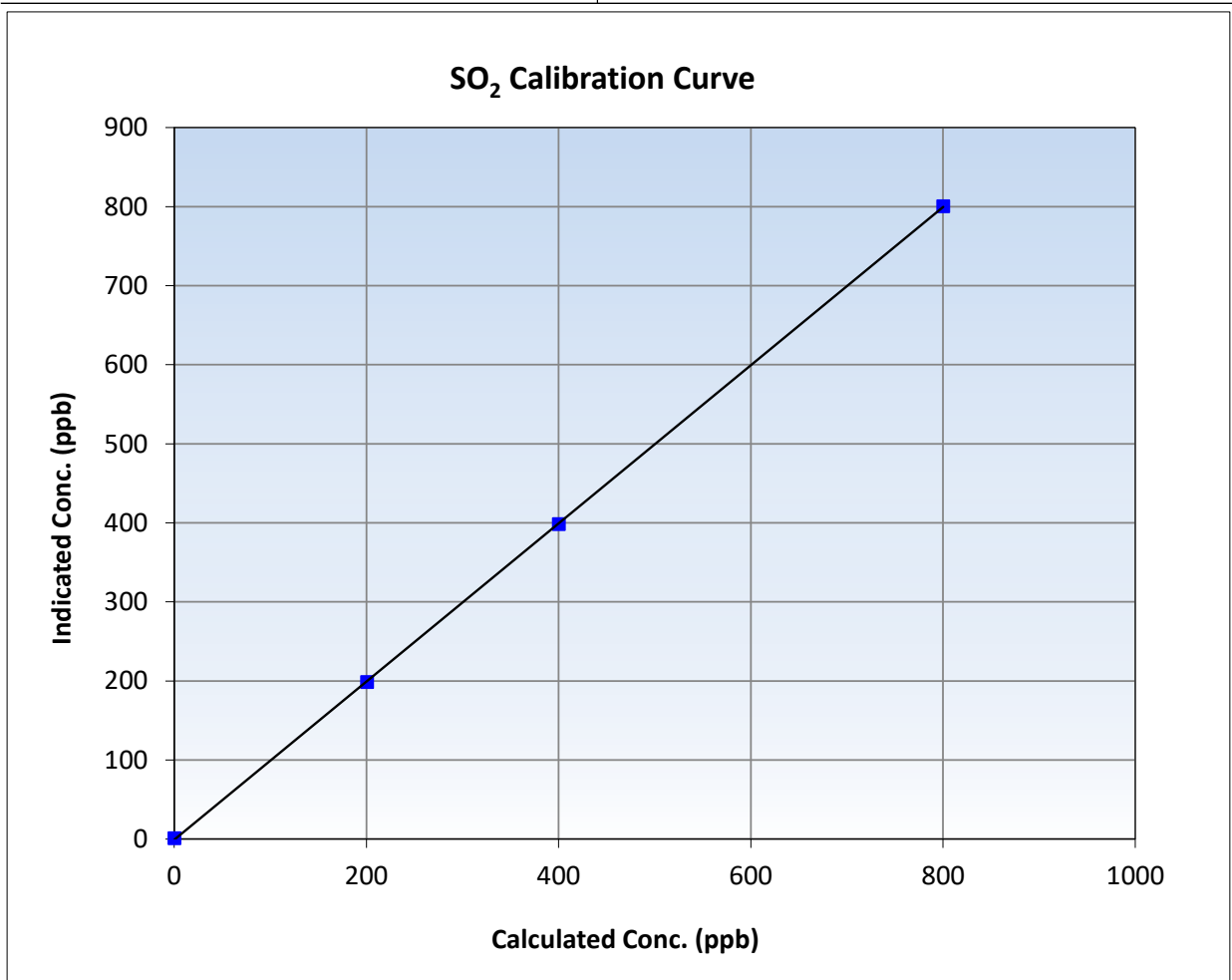
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 1, 2026
Station Name:	Hangystone Expansion	Station Number:	AMS 34
Start Time (MST):	5:40	End Time (MST):	8:41
Analyzer make:	Thermo 43i	Analyzer serial #:	1173410001

### Calibration Data

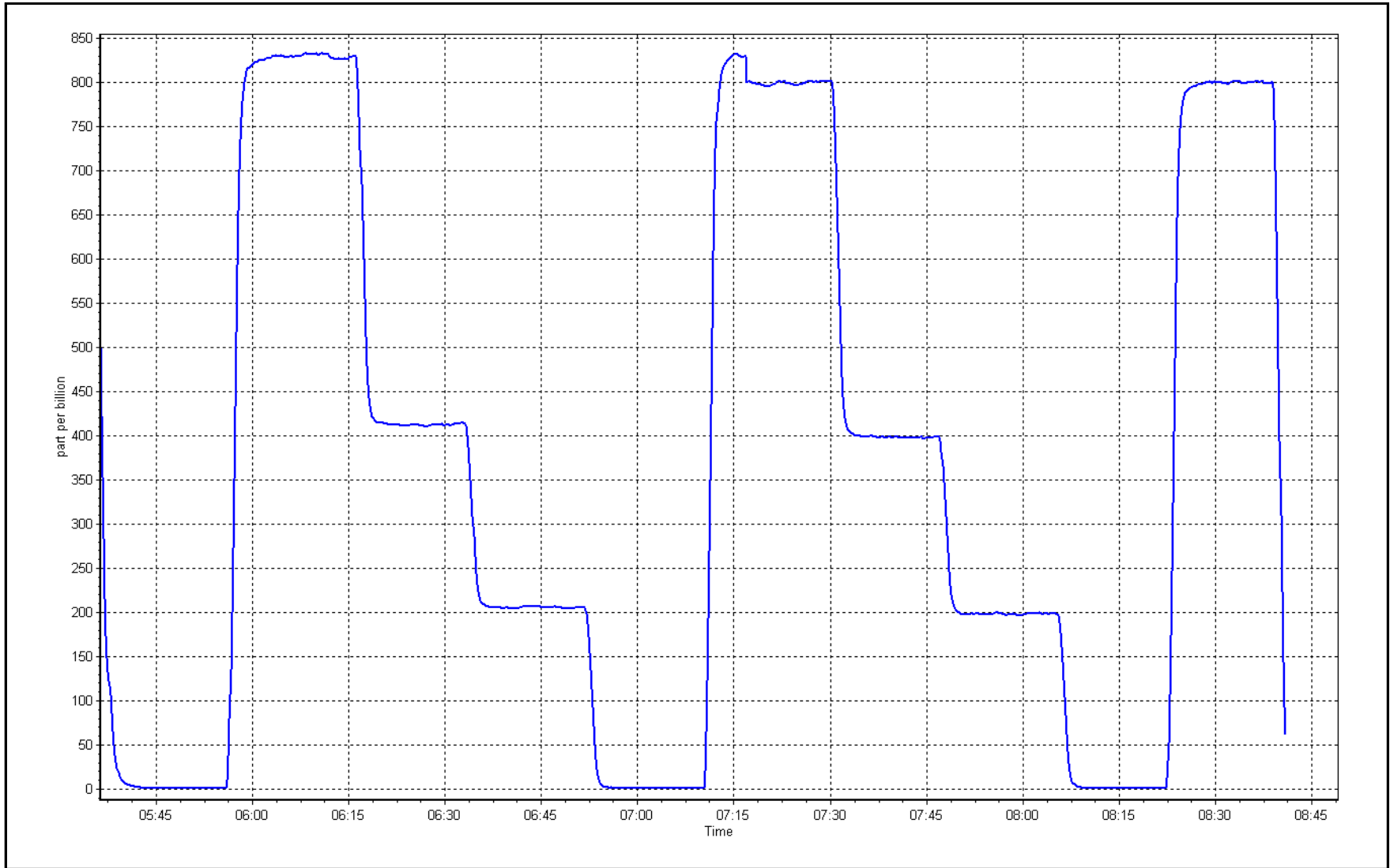
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	0.7	----	Correlation Coefficient	0.999981	<b>≥0.995</b>
799.8	800.1	0.9996	Slope	1.000328	<b>0.90 - 1.10</b>
399.9	398.0	1.0049	Intercept	-0.880053	<b>+/-30</b>
200.4	198.3	1.0107			



SO2 Calibration Plot

Date: May 22, 2026

Location: Hangingstone Expansion





# Wood Buffalo Environmental Association

## H<sub>2</sub>S Calibration Report

### Station Information

Station Name:	Hangingstone Expansion	Station number:	AMS 34
Calibration Date:	May 7, 2026	Last Cal Date:	April 1, 2026
Start time (MST):	6:44	End time (MST):	10:46
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.139	ppm	Cal Gas Exp Date:	January 3, 2026
Cal Gas Cylinder #:	CC511397			
Removed Cal Gas Conc:	5.139	ppm	Rem Gas Exp Date:	N/A
Removed Gas Cyl #:	N/A		Diff between cyl:	
Calibrator Make/Model:	API T750		Serial Number:	282
ZAG Make/Model:	API T751H		Serial Number:	321

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1336160090
Converter make:	Global G150	Converter serial #:	2025-299
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.006350	1.008064	Backgd or Offset:	4.54	4.54
Calibration intercept:	-0.019325	-0.179322	Coeff or Slope:	1.442	1.442

### H<sub>2</sub>S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4922	77.8	80.0	81.9	0.976
As found Mid point	4961	38.9	40.0	40.8	0.980
As found Low point	4981	19.5	20.0	20.2	0.992
New cylinder response					
Baseline Corr As found:	81.9	Prev response:	80.45	*% change:	1.8%
Baseline Corr 2nd AF pt:	40.8	AF Slope:	1.025362	AF Intercept:	-0.159672
Baseline Corr 3rd AF pt:	20.2	AF Correlation:	0.999982	* = > +/-5% change initiates investigation	

### H<sub>2</sub>S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.0	----
High point	4922	77.8	80.0	80.5	0.993
Mid point	4961	38.9	40.0	40.1	0.997
Low point	4981	19.5	20.0	19.8	1.012
As left zero	5000	0.0	0.0	0.1	----
As left span	4922	77.8	80.0	80.5	0.993
SO2 Scrubber Check	4919	81.0	810.0	0.1	----
Date of last scrubber change:				Ave Corr Factor	1.001
Date of last converter efficiency test:					

Notes: Sox scrubber checked after the calibrator zero. No adjustments done.

Calibration Performed By: Melissa Lemay



# Wood Buffalo Environmental Association

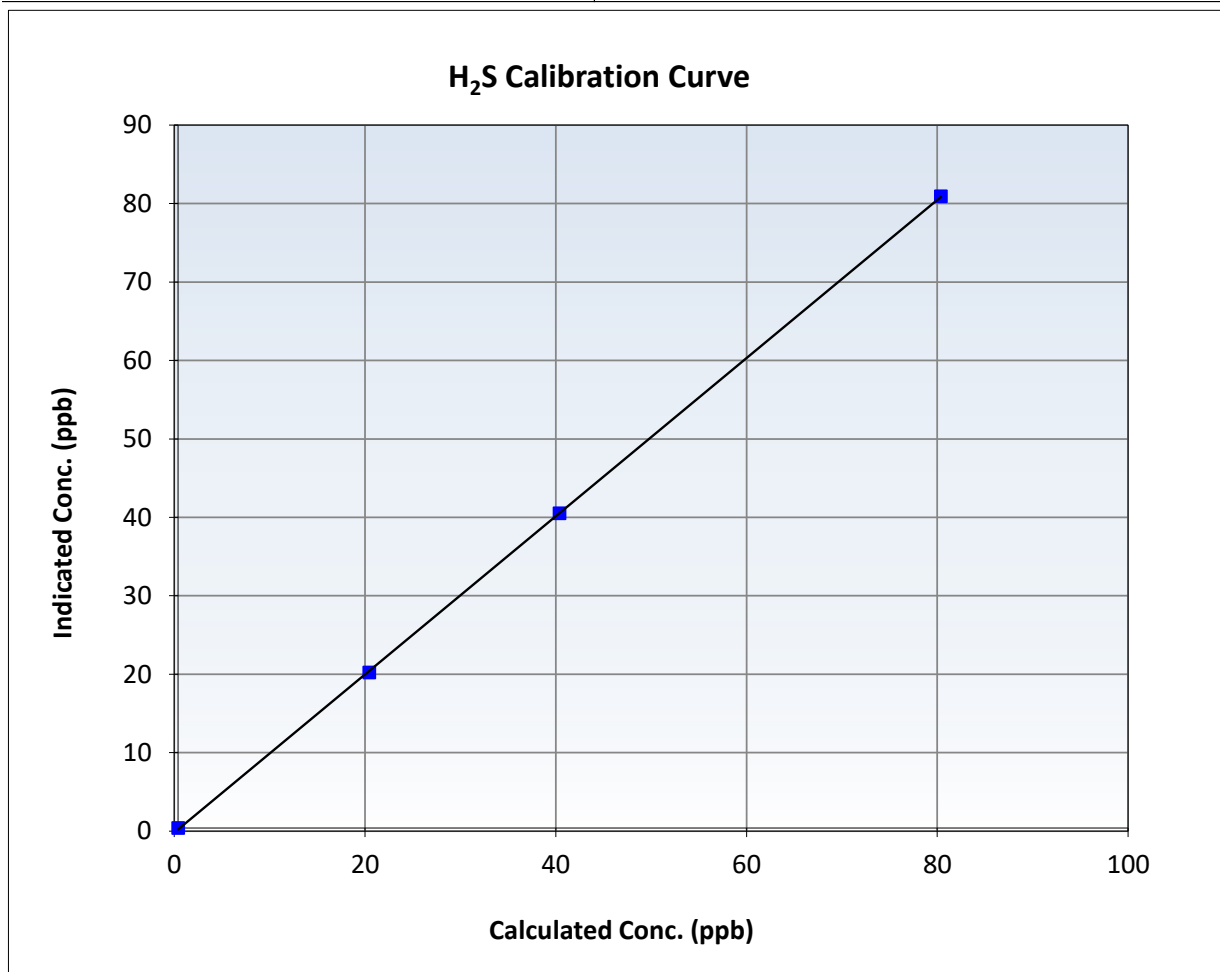
## H<sub>2</sub>S Calibration Summary

### Station Information

Calibration Date:	May 7, 2026	Previous Calibration:	April 1, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	6:44	End Time (MST):	10:46
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1336160090

### Calibration Data

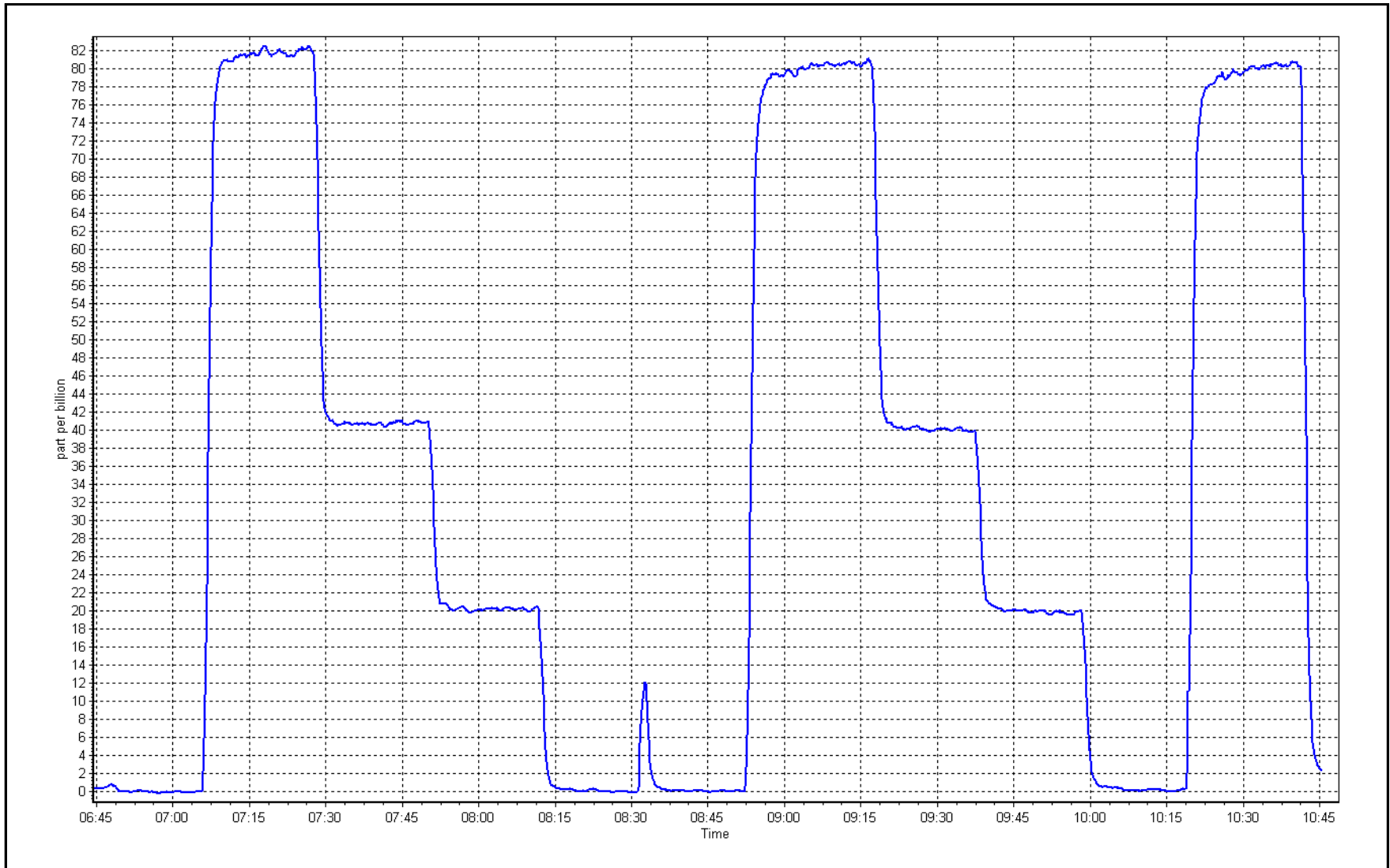
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.0	----	Correlation Coefficient	0.999976	≥0.995
80.0	80.5	0.9934	Slope	1.008064	0.90 - 1.10
40.0	40.1	0.9971	Intercept	-0.179322	+/-3
20.0	19.8	1.0121			



H<sub>2</sub>S Calibration Plot

Date: May 7, 2026

Location: Hangingstone Expansion





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Hangingstone Expansion  
 Station number: AMS 34  
 Calibration Date: May 21, 2026  
 Last Cal Date: April 27, 2026  
 Start time (MST): 6:20  
 End time (MST): 10:42  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: T0F8P52  
 NOX Cal Gas Conc: 47.43 ppm  
 Removed Cylinder #: N/A  
 Removed Gas NOX Conc: 47.43 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API 701  
 Cal Gas Expiry Date: August 16, 2026  
 NO Cal Gas Conc: 47.43 ppm  
 Removed Gas Exp Date: N/A  
 Removed Gas NO Conc: 47.43 ppm  
 NO gas Diff:  
 Serial Number: 953  
 Serial Number: 2659

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.1	----	----
AF High point	4915	84.4	800.7	800.7	0.0	809.7	808.5	1.3	0.9887	0.9901
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 804.3 ppb		NO = 802.7 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		<i>*Percent Change</i>	NO <sub>x</sub> = 0.7%	
Baseline Corr 1st pt	NO <sub>x</sub> = 809.9 ppb		NO = 808.7 ppb			<u>As Found Statistics</u>		<i>*Percent Change</i>	NO = 0.7%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Teledyne API T200  
 NOX Range (ppb): 0-1000

Serial Number: 7029

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.006076	1.000010
NO <sub>x</sub> Cal Offset:	-1.248040	-0.448005
NO Cal Slope:	1.004306	0.998725
NO Cal Offset:	-1.428019	-1.547973
NO <sub>2</sub> Cal Slope:	0.999839	1.006835
NO <sub>2</sub> Cal Offset:	0.154829	1.350245

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	1.077	1.060	NO bkgnd or offset:	0.2	0.2
NOX coeff or slope:	1.073	1.059	NOX bkgnd or offset:	0.4	0.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	4.5	4.5

### Dilution Calibration Data

Set Point	Dilution flow rate (scm)	Source gas flow rate (scm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	----	----
High point	4915	84.4	800.7	800.7	0.0	800.3	798.7	1.6	1.0005	1.0025
Mid point	4957	42.2	400.4	400.4	0.0	400.2	398.2	2.0	1.0004	1.0055
Low point	4978	21.1	200.2	200.2	0.0	199.1	196.4	2.7	1.0055	1.0193
As left zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	----	----
As left span	4915	84.4	800.7	396.6	404.1	798.1	396.6	401.4	1.0033	1.0000
Average Correction Factor									1.0021	1.0091

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.1	----	----
High GPT point	797.0	393.6	403.4	406.6	0.9921	100.8%
Mid GPT point	797.0	591.3	205.7	209.6	0.9814	101.9%
Low GPT point	797.0	689.3	107.7	111.0	0.9703	103.1%
Average Correction Factor					0.9813	101.9%

Notes:

No maintenance done. Span adjusted.

Calibration Performed By:

Melissa Lemay



# Wood Buffalo Environmental Association

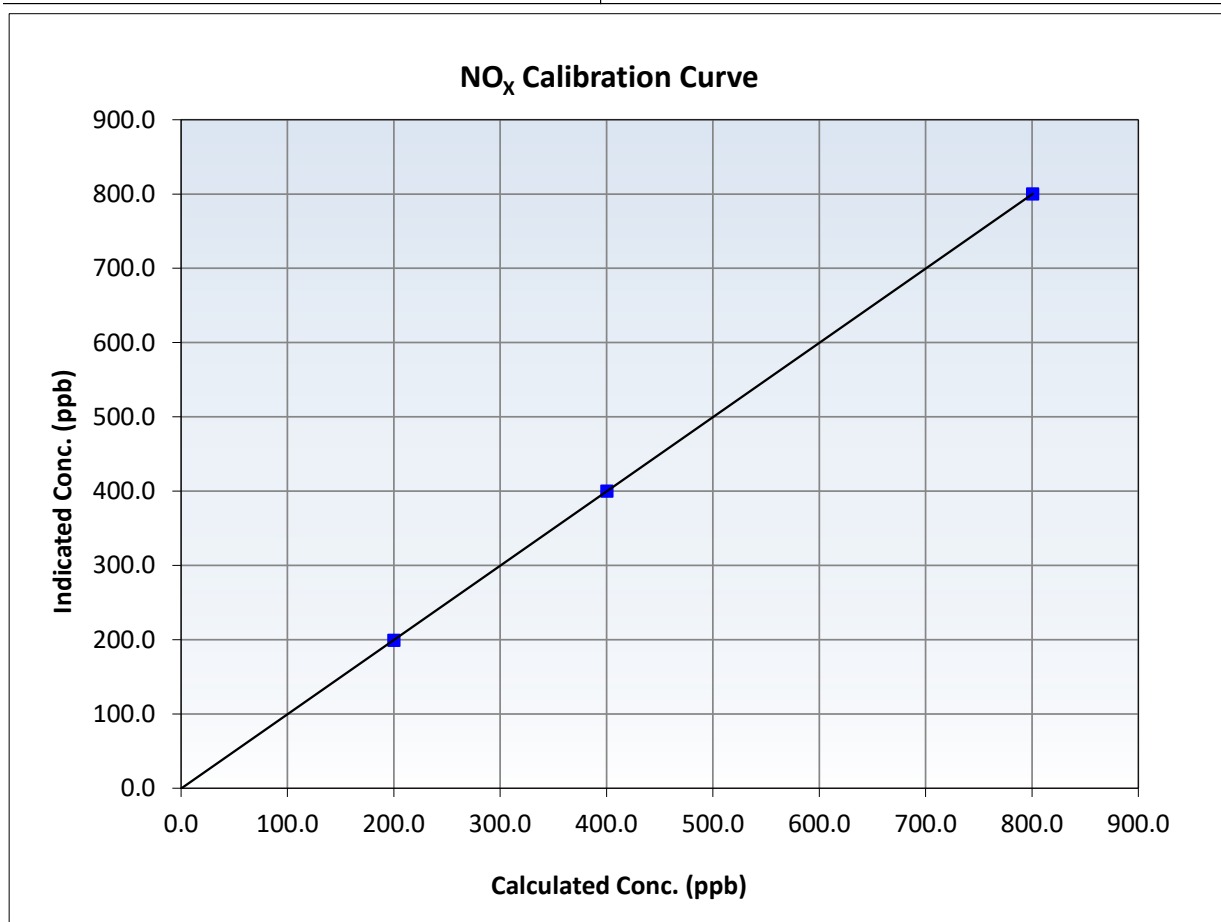
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 27, 2026
Station Name:	Hangingshore Expansion	Station Number:	AMS 34
Start Time (MST):	6:20	End Time (MST):	10:42
Analyzer make:	Teledyne API T200	Analyzer serial #:	7029

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999998	≥0.995
800.7	800.3	1.0005	Slope	1.000010	0.90 - 1.10
400.4	400.2	1.0004	Intercept	-0.448005	+/-20
200.2	199.1	1.0055			





# Wood Buffalo Environmental Association

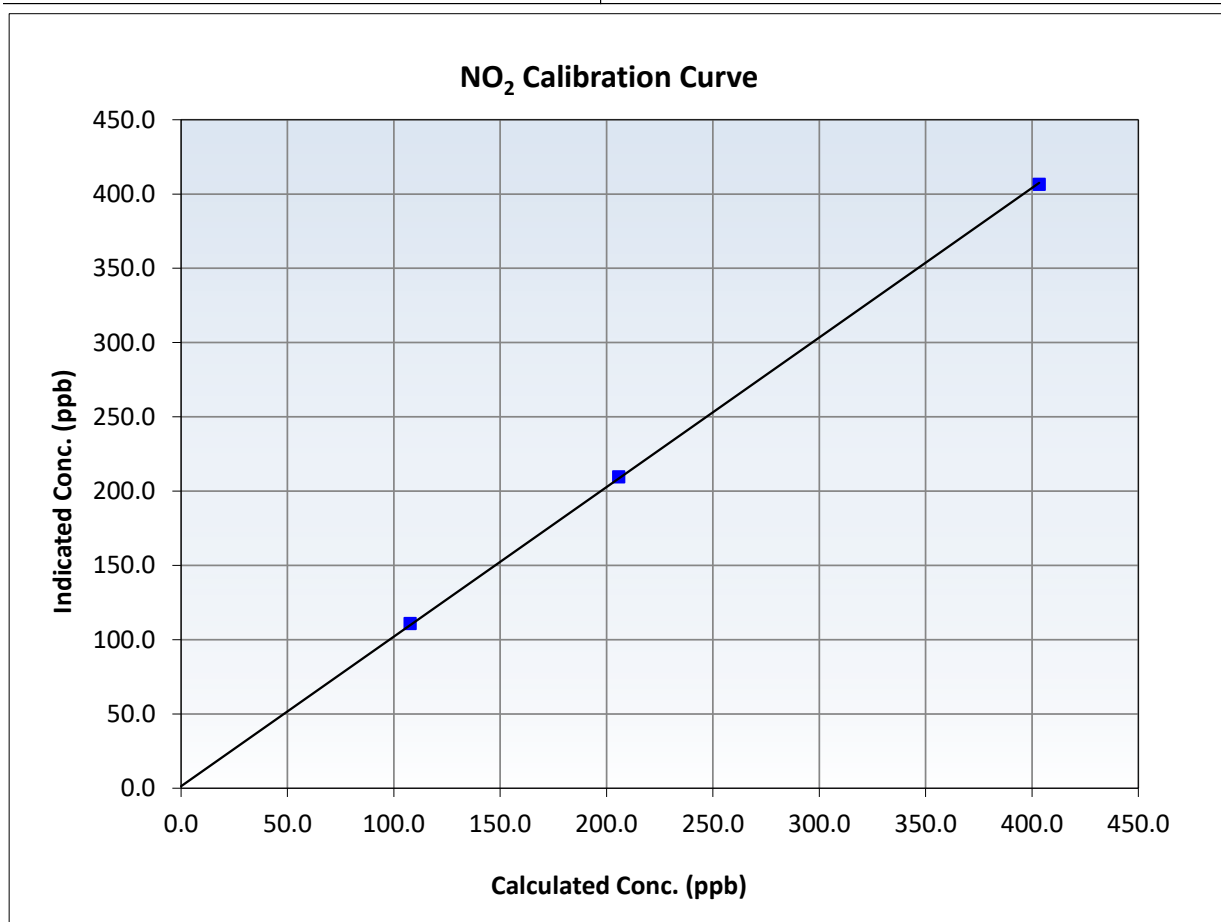
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 27, 2026
Station Name:	Hangingstone Expansion	Station Number:	AMS 34
Start Time (MST):	6:20	End Time (MST):	10:42
Analyzer make:	Teledyne API T200	Analyzer serial #:	7029

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999936	≥0.995
403.4	406.6	0.9921	Slope	1.006835	0.90 - 1.10
205.7	209.6	0.9814	Intercept	1.350245	+/-20
107.7	111.0	0.9703			





# Wood Buffalo Environmental Association

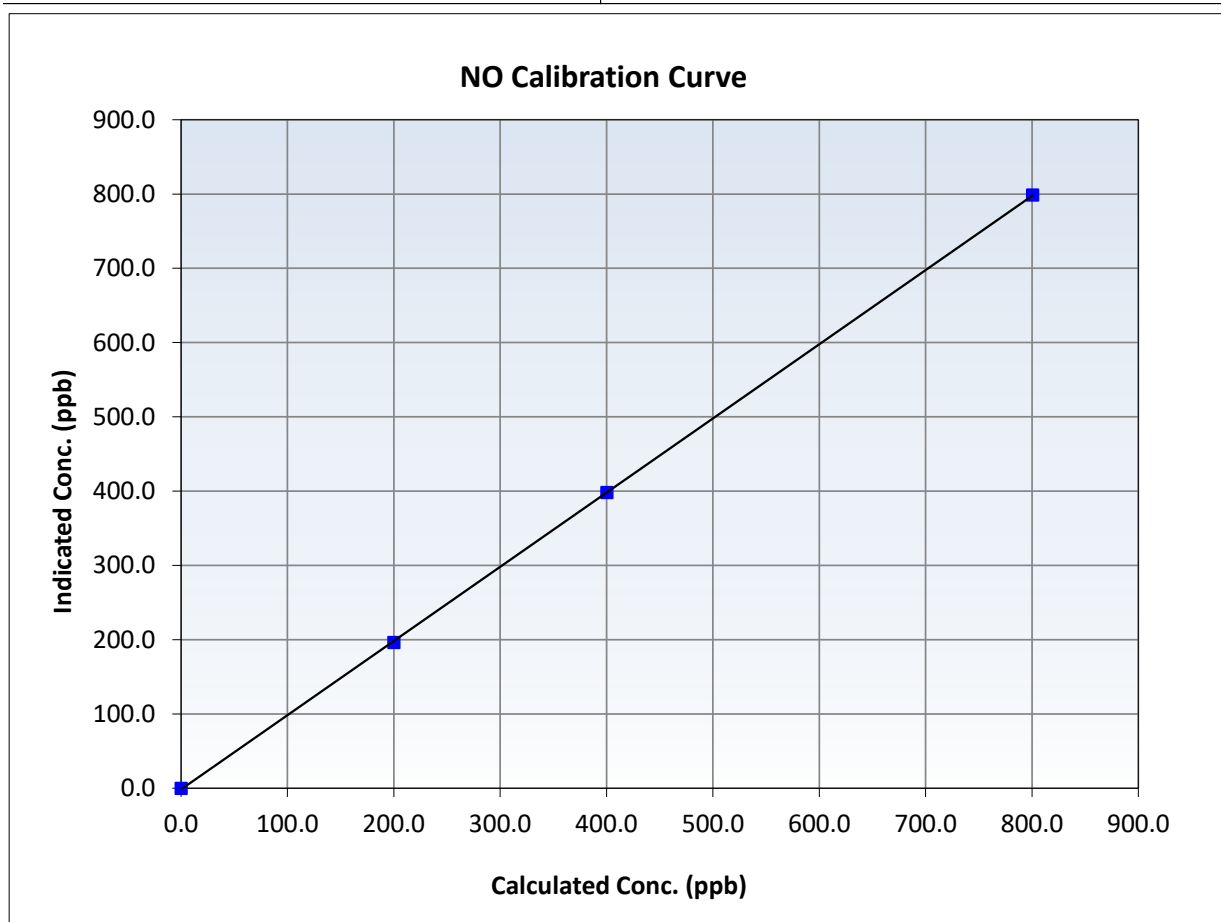
## NO Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 27, 2026
Station Name:	Hangingshore Expansion	Station Number:	AMS 34
Start Time (MST):	6:20	End Time (MST):	10:42
Analyzer make:	Teledyne API T200	Analyzer serial #:	7029

### Calibration Data

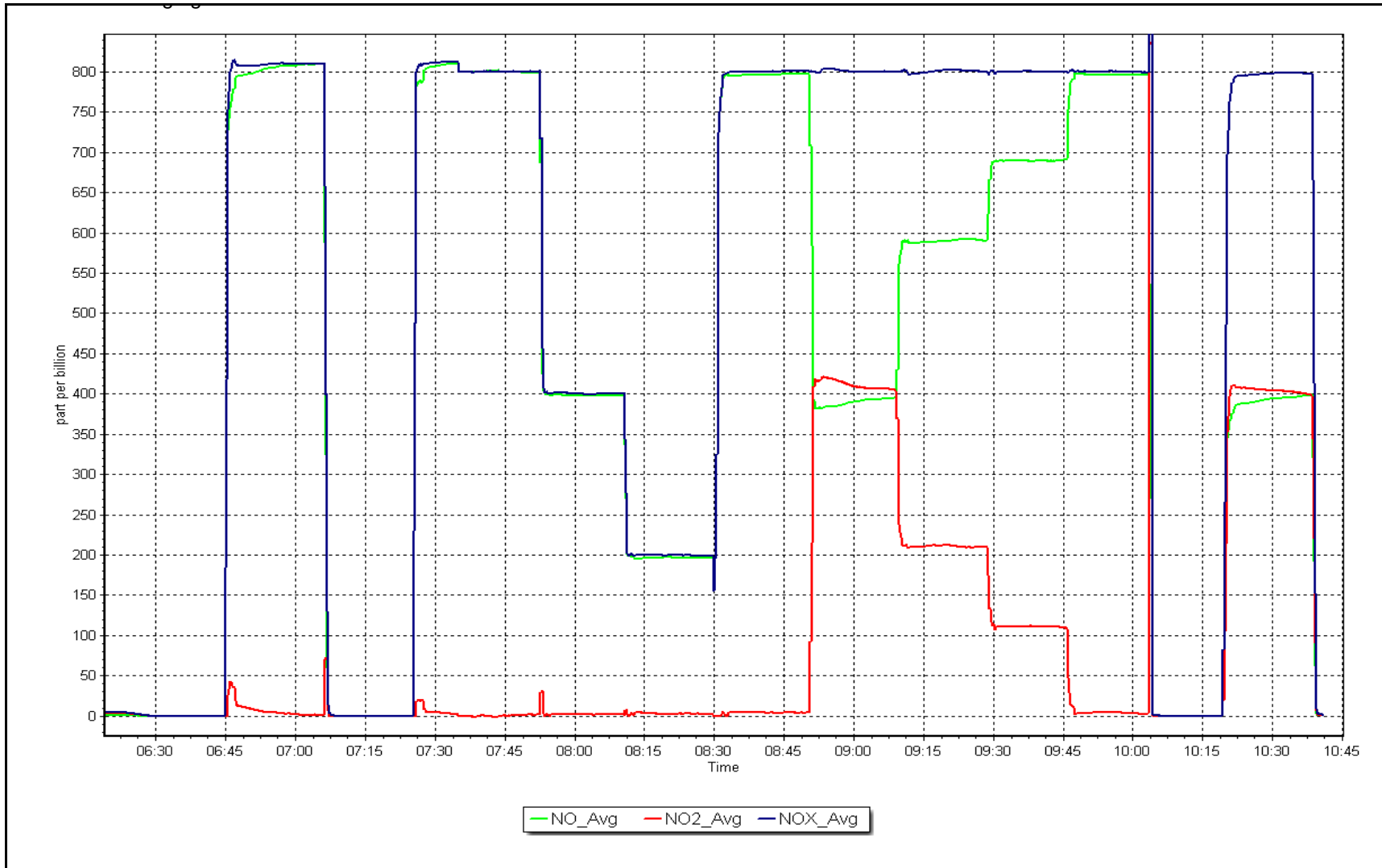
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999981	<span style="color: red;">≥0.995</span>
800.7	798.7	1.0025	Slope	0.998725	<span style="color: red;">0.90 - 1.10</span>
400.4	398.2	1.0055	Intercept	-1.547973	<span style="color: red;">+/-20</span>
200.2	196.4	1.0193			



NO<sub>x</sub> Calibration Plot

Date: May 21, 2026

Location: Hangingstone Expansion





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS505**  
**SAWBONES BAY**  
**MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Sawbones Bay	Station number:	AMS 505
Calibration Date:	May 13, 2026	Last Cal Date:	April 17, 2026
Start time (MST):	10:37	End time (MST):	13:37
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.05	ppm	Cal Gas Exp Date:	April 9, 2033
Cal Gas Cylinder #:	EB0063977			
Removed Cal Gas Conc:	50.05	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:	EB0063977		Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	3807
Zero Air Gen Model:	Teledyne API T701H		Serial Number:	690

### Analyzer Information

Analyzer make:	Thermo 43i	Serial Number:	0710321323
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.001249	1.003553	Backgd or Offset:	22.7	22.9
Calibration intercept:	0.404080	0.523472	Coeff or Slope:	1.111	1.111

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4920	79.8	798.8	802.0	0.996
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	802.2	Previous response	800.2	*% change	0.2%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		* = > +/-5% change initiates investigation	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4920	79.8	798.8	802.0	0.996
Mid point	4960	39.9	399.4	401.3	0.995
Low point	4980	20.0	200.2	202.3	0.990
As left zero	5000	0.0	0.0	0.0	----
As left span	4920	79.8	798.8	804.0	0.994
Average Correction Factor:					0.994

Notes: Changed inlet filter after as founds. No adjustments made.

Calibration Performed By: Braiden Boutillier



# Wood Buffalo Environmental Association

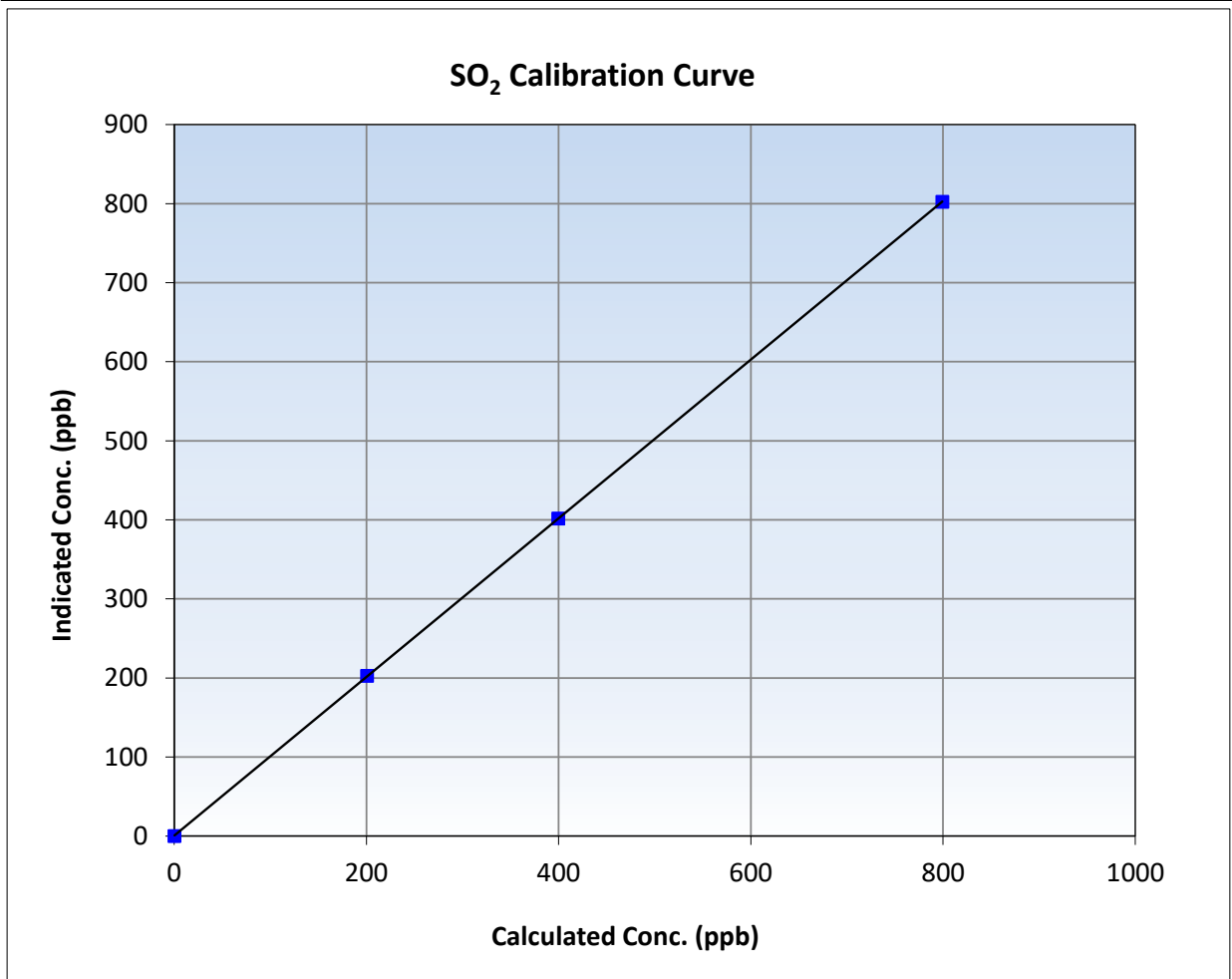
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 13, 2026	Previous Calibration:	April 17, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:37	End Time (MST):	13:37
Analyzer make:	Thermo 43i	Analyzer serial #:	0710321323

### Calibration Data

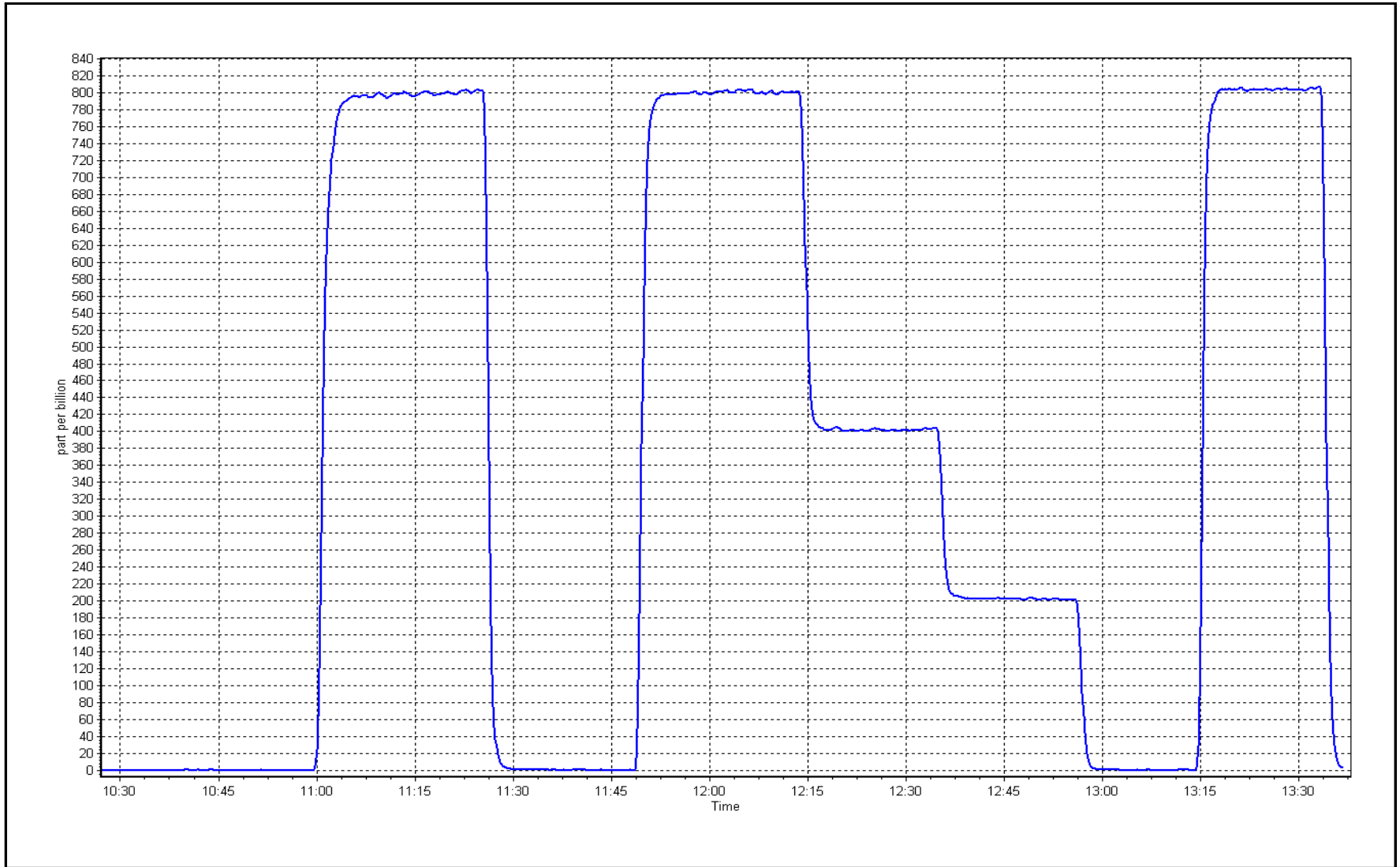
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	<u>Limits</u>	
0.0	-0.1	----	Correlation Coefficient	0.999997	<b>≥0.995</b>
798.8	802.0	0.9960	Slope	1.003553	<b>0.90 - 1.10</b>
399.4	401.3	0.9953	Intercept	0.523472	<b>+/-30</b>
200.2	202.3	0.9896			



SO2 Calibration Plot

Date: May 13, 2026

Location: Sawbones Bay





# Wood Buffalo Environmental Association

## H2S Calibration Report

### Station Information

Station Name:	Sawbones Bay	Station number:	AMS 505
Calibration Date:	May 22, 2026	Last Cal Date:	April 16, 2026
Start time (MST):	10:47	End time (MST):	17:08
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.26 ppm	Cal Gas Exp Date:	March 19, 2027
Cal Gas Cylinder #:	DT0034141		
Removed Cal Gas Conc:	5.26 ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	NA	Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700	Serial Number:	3807
ZAG Make/Model:	Teledyne API T701H	Serial Number:	690

### Analyzer Information

Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12113311965
Converter make:	Global 150	Converter serial #:	2022-224
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.988307	1.002745	Backgd or Offset:	1.19	1.18
Calibration intercept:	0.380000	-0.200000	Coeff or Slope:	1.087	1.071

### H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.2	----
As found High point	4925	76.0	79.9	82.2	0.970
As found Mid point	4962	38.0	40.0	40.8	0.975
As found Low point	4981	19.0	20.0	20.6	0.961
New cylinder response					
Baseline Corr As found:	82.4	Prev response:	79.38	*% change:	3.7%
Baseline Corr 2nd AF pt:	41.0	AF Slope:	1.029686	AF Intercept:	-0.163284
Baseline Corr 3rd AF pt:	20.8	AF Correlation:	0.999979	<i>* = &gt; +/-5% change initiates investigation</i>	

### H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4924	76.0	80.0	80.2	0.997
Mid point	4962	38.0	40.0	39.3	1.017
Low point	4981	19.0	20.0	20.1	0.994
As left zero	5000	0.0	0.0	0.1	----
As left span	4925	76.0	79.9	79.4	1.007
SO2 Scrubber Check	4920	79.8	798.0	0.0	----
Date of last scrubber change:				Ave Corr Factor	1.003
Date of last converter efficiency test:					

Notes: Changed inlet filter after as founds. SO2 scrubber check done and passed. Adjusted span.

Calibration Performed By: Braiden Boutilier



# Wood Buffalo Environmental Association

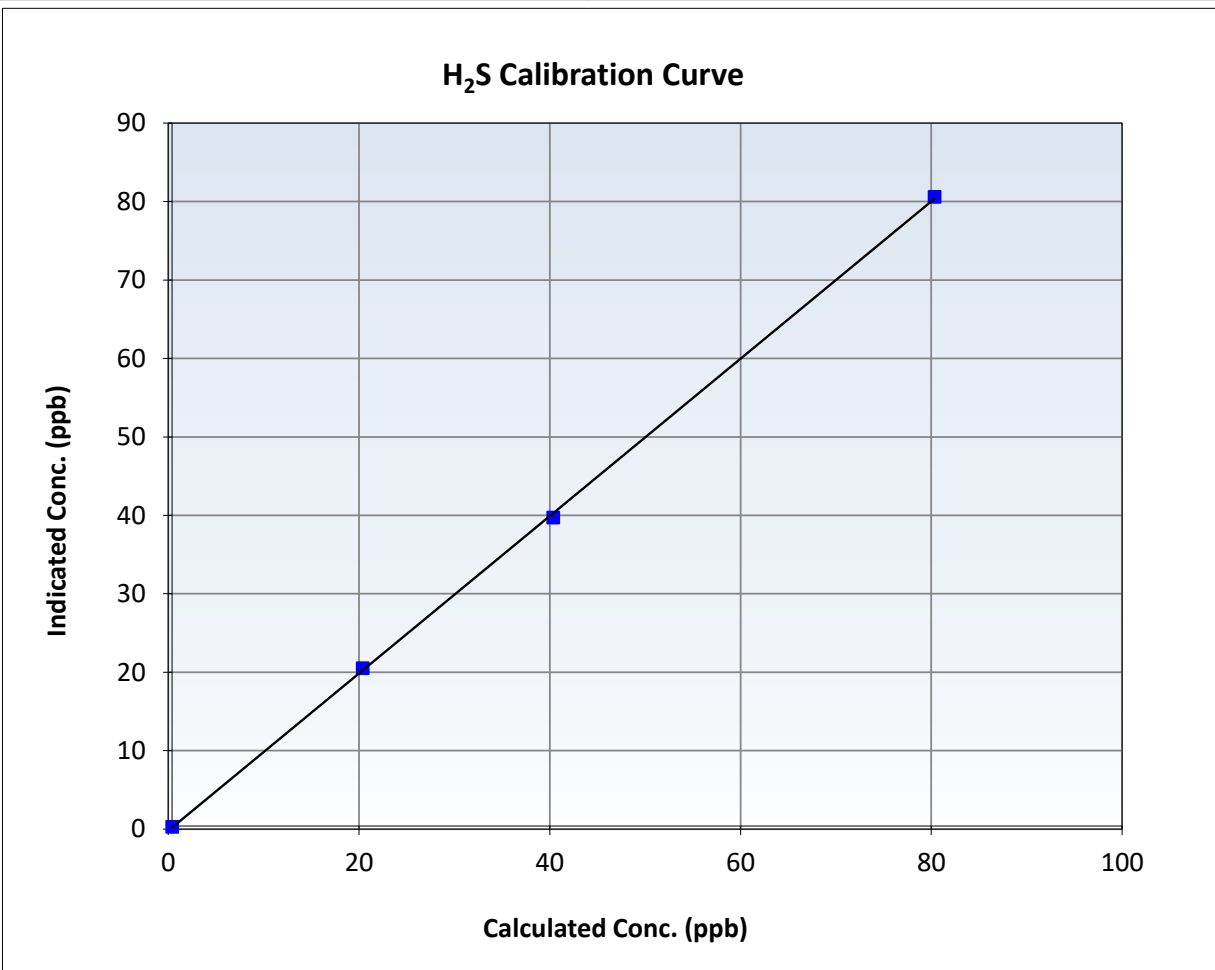
## H2S Calibration Summary

### Station Information

Calibration Date:	May 22, 2026	Previous Calibration:	April 16, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:47	End Time (MST):	17:08
Analyzer make:	Thermo 43iQTL	Analyzer serial #:	12113311965

### Calibration Data

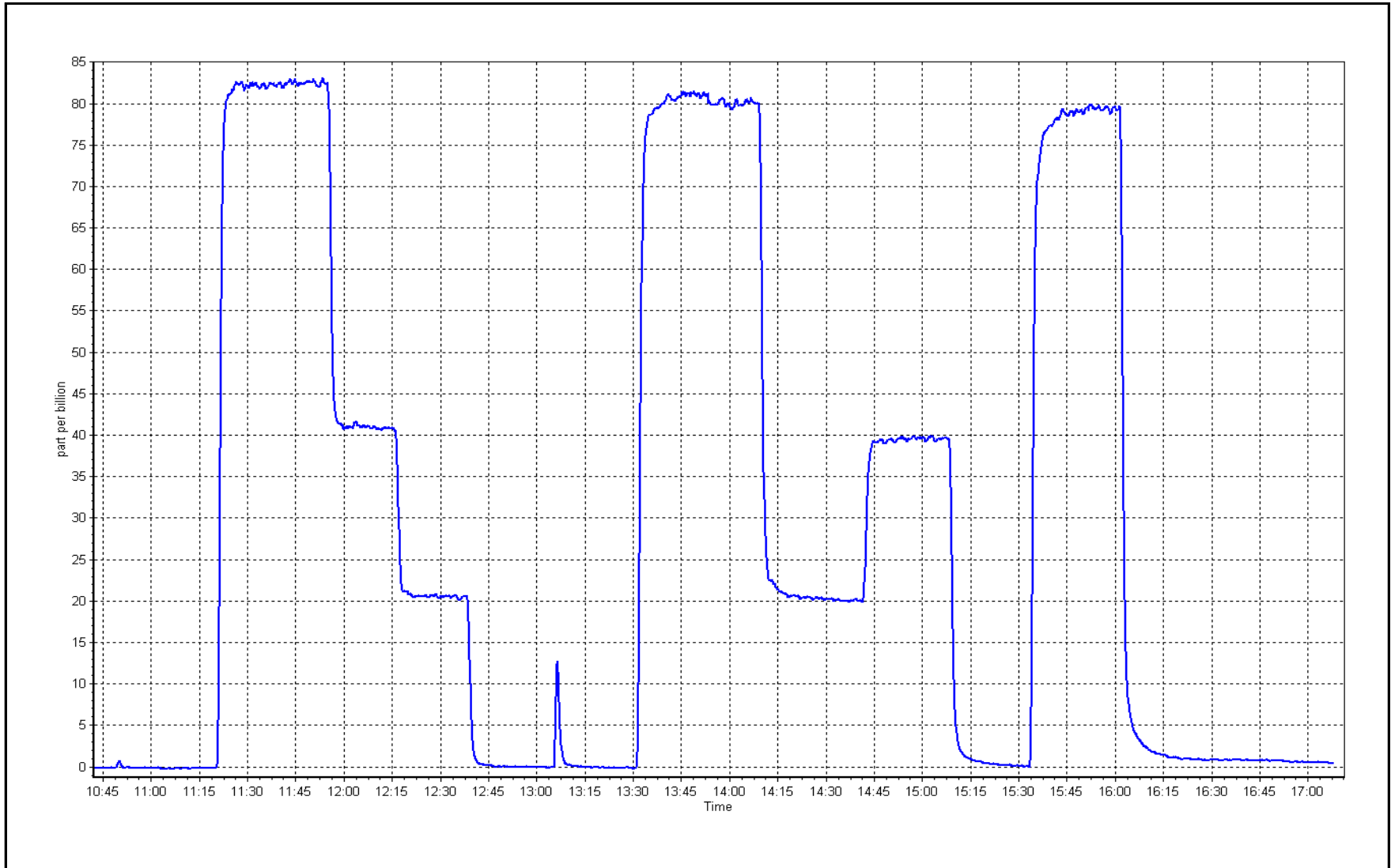
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999866	$\geq 0.995$
80.0	80.2	0.9969	Slope	1.002745	$0.90 - 1.10$
40.0	39.3	1.0172	Intercept	-0.200000	$\pm 3$
20.0	20.1	0.9944			



H2S Calibration Plot

Date: May 22, 2026

Location: Sawbones Bay





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Sawbones Bay  
 Station number: AMS 505  
 Calibration Date: May 28, 2026  
 Last Cal Date: April 16, 2026  
 Start time (MST): 10:30  
 End time (MST): 15:53  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0009786  
 NOX Cal Gas Conc: 60.10 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 60.10 ppm  
 NOX gas Diff:  
 Calibrator Model: API T700  
 ZAG make/model: API T701H  
 Cal Gas Expiry Date: January 5, 2032  
 NO Cal Gas Conc: 60.00 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 60.00 ppm  
 NO gas Diff:  
 Serial Number: 3807  
 Serial Number: 690

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.1	-0.2	0.1	----	----
AF High point	4933	66.7	801.8	800.4	1.3	779.7	777.3	2.4	1.0282	1.0295
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 805.8 ppb		NO = 804.6 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -3.3%	
Baseline Corr 1st pt	NO <sub>x</sub> = 779.8 ppb		NO = 777.5 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -3.5%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: API T200  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 4259

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	1.004154	1.000863
NO <sub>x</sub> Cal Offset:	0.650656	1.229871
NO Cal Slope:	1.005540	1.000745
NO Cal Offset:	-0.248551	0.330016
NO <sub>2</sub> Cal Slope:	1.035654	0.996569
NO <sub>2</sub> Cal Offset:	-1.265205	0.467712

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.936	0.957	NO bkgnd or offset:	0.3	-5.4
NOX coeff or slope:	0.935	0.956	NOX bkgnd or offset:	0.6	-4.4
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	3.8	3.8

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>x</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	0.0	-0.1	0.1	----	----
High point	4933	66.7	801.8	800.4	1.3	803.0	801.0	2.0	0.9985	0.9993
Mid point	4967	33.3	400.2	399.6	0.7	402.7	400.9	1.8	0.9939	0.9967
Low point	4983	16.7	200.7	200.4	0.3	203.2	201.0	2.2	0.9879	0.9971
As left zero	5000	0.0	0.0	0.0	0.0	2.8	3.0	-0.1	----	----
As left span	4933	66.7	801.8	405.7	396.1	800.0	405.7	394.5	1.0022	1.0000
Average Correction Factor									0.9934	0.9977

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	NO <sub>2</sub> Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	0.1	----	----
High GPT point	801.0	405.6	396.7	395.5	1.0031	99.7%
Mid GPT point	801.0	624.3	178.0	178.7	0.9963	100.4%
Low GPT point	801.0	714.5	87.8	87.9	0.9993	100.1%
Average Correction Factor					0.9995	100.0%

Notes: Changed inlet filter after as founds. Adjusted span. Second high NO reference point used in GPT calculations.

Calibration Performed By: Braiden Boutilier



# Wood Buffalo Environmental Association

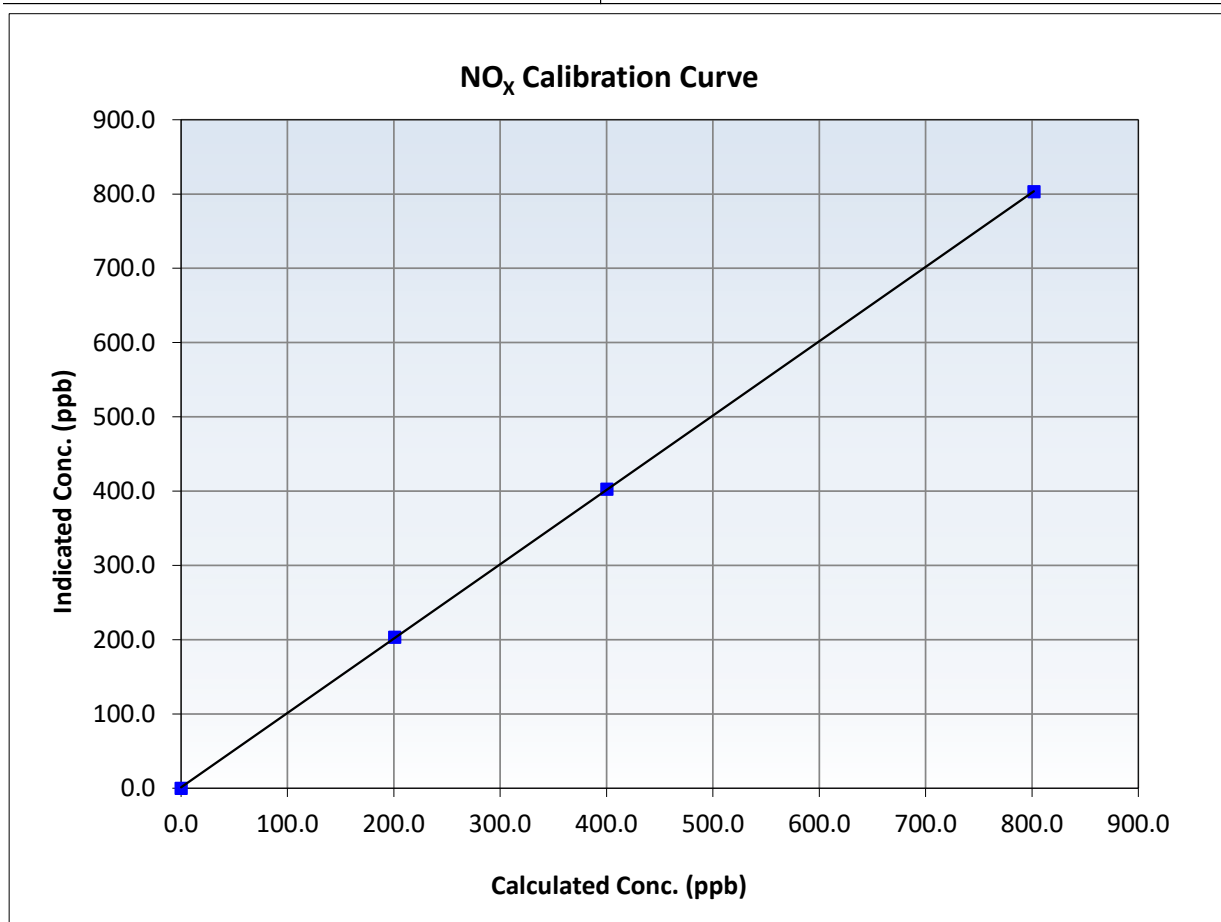
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 16, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:30	End Time (MST):	15:53
Analyzer make:	API T200	Analyzer serial #:	4259

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.0	----	Correlation Coefficient	0.999989	≥0.995
801.8	803.0	0.9985	Slope	1.000863	0.90 - 1.10
400.2	402.7	0.9939	Intercept	1.229871	+/-20
200.7	203.2	0.9879			





# Wood Buffalo Environmental Association

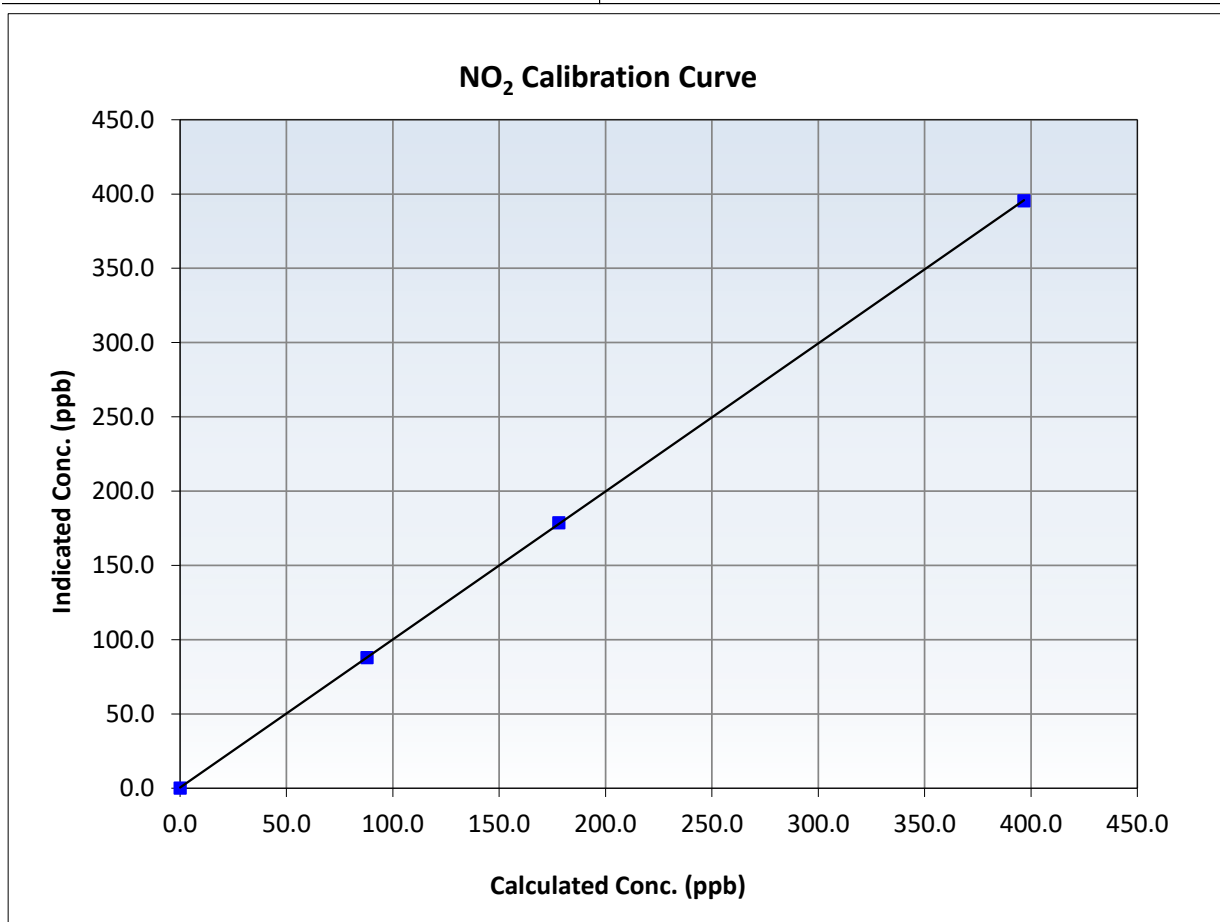
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 16, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:30	End Time (MST):	15:53
Analyzer make:	API T200	Analyzer serial #:	4259

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999989	≥0.995
396.7	395.5	1.0031	Slope	0.996569	0.90 - 1.10
178.0	178.7	0.9963	Intercept	0.467712	+/-20
87.8	87.9	0.9993			





# Wood Buffalo Environmental Association

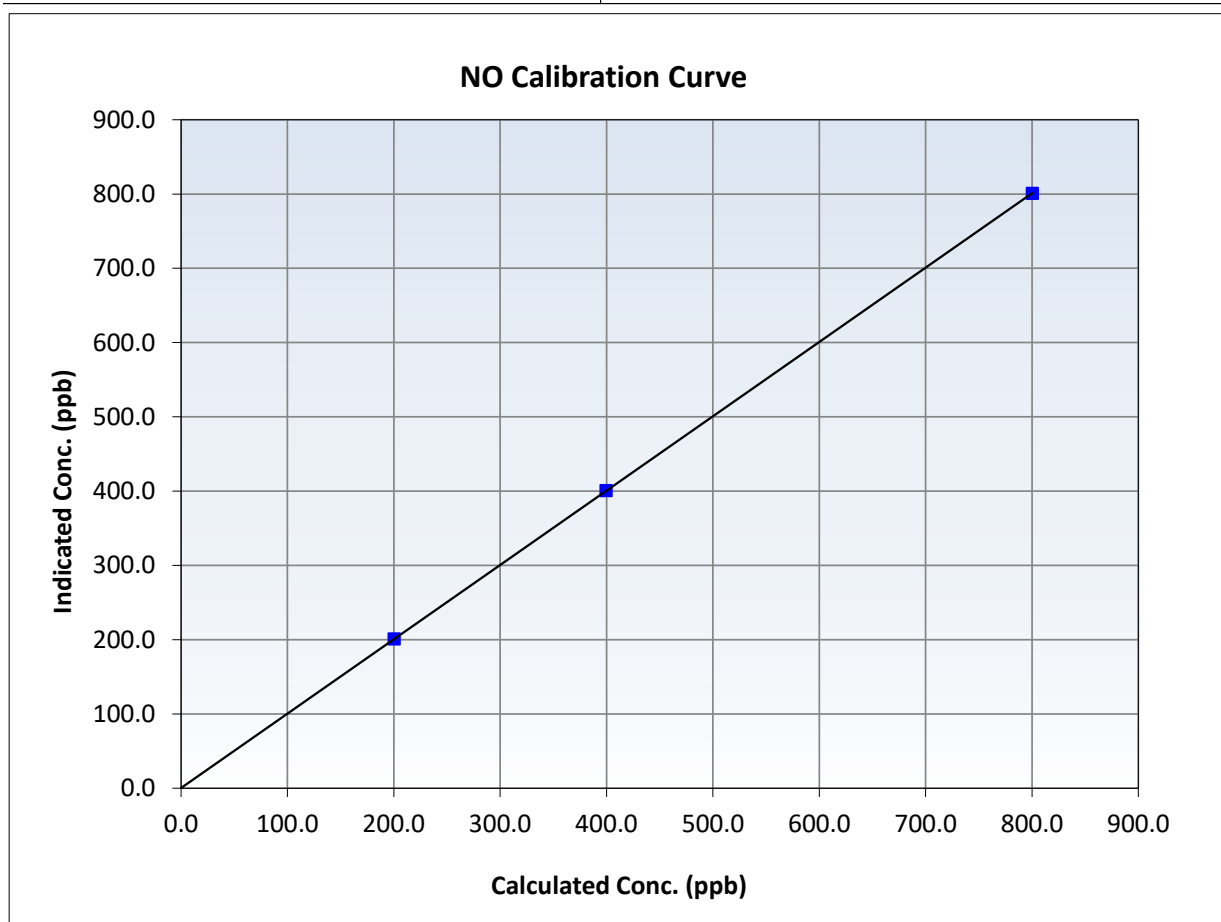
## NO Calibration Summary

### Station Information

Calibration Date:	May 28, 2026	Previous Calibration:	April 16, 2026
Station Name:	Sawbones Bay	Station Number:	AMS 505
Start Time (MST):	10:30	End Time (MST):	15:53
Analyzer make:	API T200	Analyzer serial #:	4259

### Calibration Data

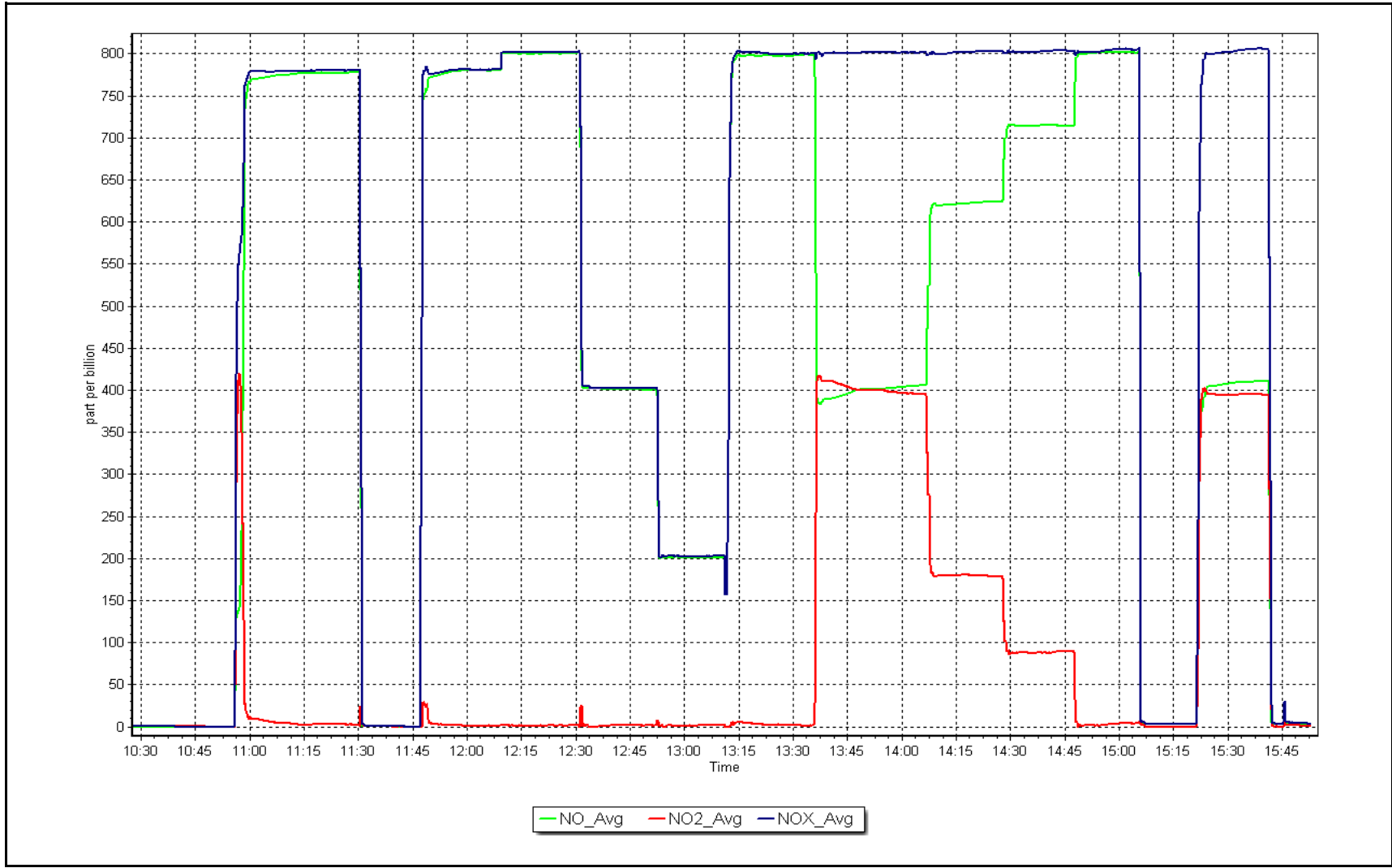
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.1	----	Correlation Coefficient	0.999998	<span style="color: red;">≥0.995</span>
800.4	801.0	0.9993	Slope	1.000745	<span style="color: red;">0.90 - 1.10</span>
399.6	400.9	0.9967	Intercept	0.330016	<span style="color: red;">+/-20</span>
200.4	201.0	0.9971			



NO<sub>x</sub> Calibration Plot

Date: May 28, 2026

Location: Sawbones Bay





## WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY  
MONITORING PROGRAM  
CALIBRATION REPORT

**AMS507**  
**KIRBY SOUTH**  
**MAY 2026**

Operations, Data Collection,  
QA/QC, Data Validation and Reporting by:  
Wood Buffalo Environmental Association  
Fort McMurray, Alberta

June 30, 2026



# Wood Buffalo Environmental Association

## SO<sub>2</sub> Calibration Report

### Station Information

Station Name:	Kirby South	Station number:	AMS 507
Calibration Date:	May 14, 2026	Last Cal Date:	April 8, 2026
Start time (MST):	10:56	End time (MST):	13:59
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	50.74	ppm	Cal Gas Exp Date:	October 9, 2023
Cal Gas Cylinder #:	<u>CC255918</u>			
Removed Cal Gas Conc:	50.74	ppm	Rem Gas Exp Date:	
Removed Gas Cyl #:			Diff between cyl:	
Calibrator Model:	Teledyne API T700		Serial Number:	2445
Zero Air Gen Model:	Teledyne API T701H		Serial Number:	880

### Analyzer Information

Analyzer make:	Thermo 43iQ-TLE	Serial Number:	1182340007
Analyzer Range:	0 - 1000 ppb		

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	1.010523	1.000691	Backgd or Offset:	31.1	31.8
Calibration intercept:	-0.611969	0.227979	Coeff or Slope:	1.134	1.119

### SO<sub>2</sub> As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	-0.4	----
As found High point	4921	78.8	799.7	812.2	0.984
As found Mid point					
As found Low point					
New cylinder response					
Baseline Corr As found:	812.6	Previous response	807.5	*% change	0.6%
Baseline Corr 2nd AF pt:	NA	AF Slope:		AF Intercept:	
Baseline Corr 3rd AF pt:	NA	AF Correlation:		<i>* = &gt; +/-5% change initiates investigation</i>	

### SO<sub>2</sub> Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	-0.1	----
High point	4921	78.8	799.7	800.5	0.999
Mid point	4961	39.4	399.8	399.9	1.000
Low point	4980	19.7	199.9	201.0	0.995
As left zero	5000	0.0	0.0	-0.3	----
As left span	4921	78.8	799.7	803.0	0.996
Average Correction Factor:					0.998

Notes: Inlet filter adjusted after as founds, span adjusted.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

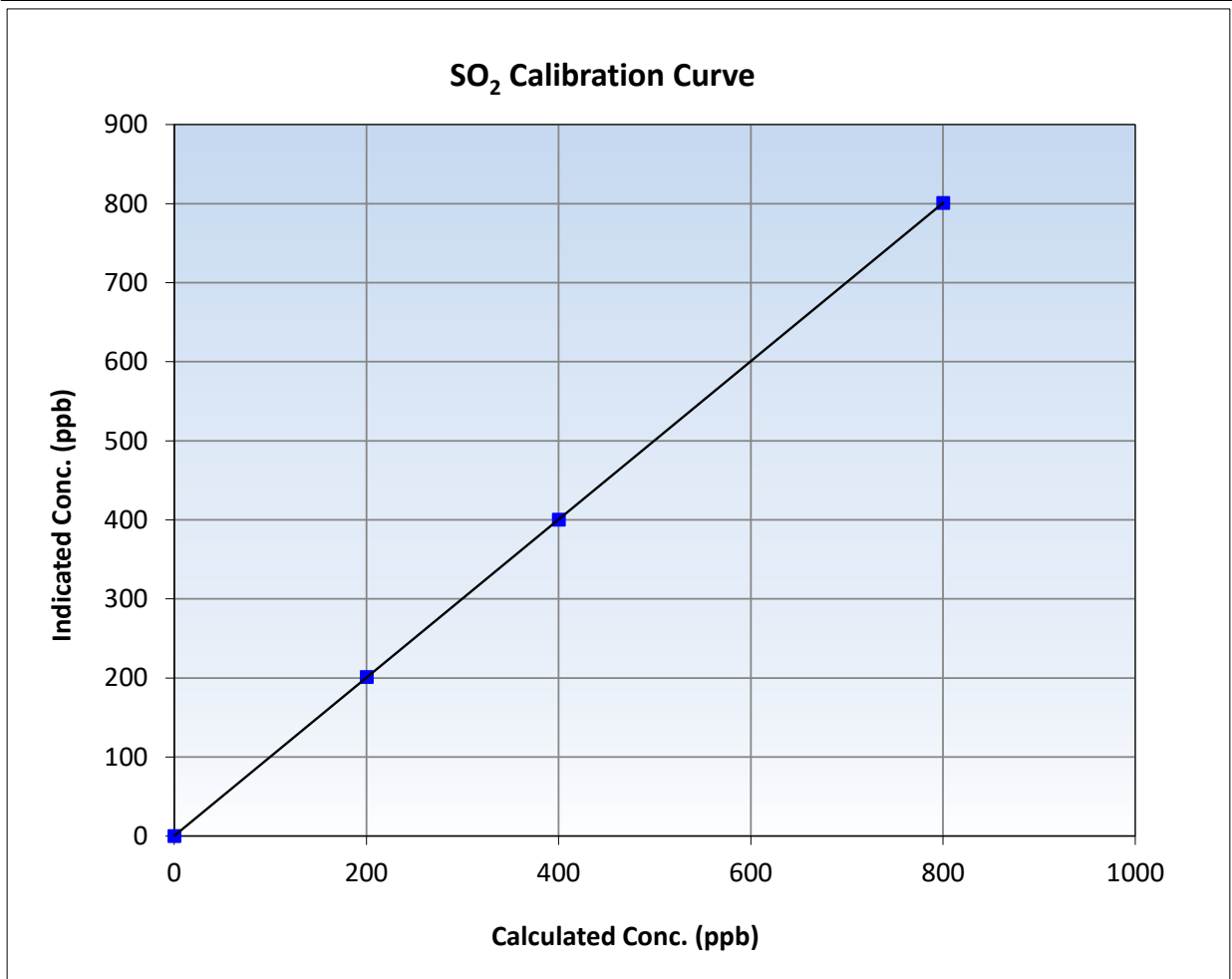
## SO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 8, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	10:56	End Time (MST):	13:59
Analyzer make:	Thermo 43iQ-TLE	Analyzer serial #:	1182340007

### Calibration Data

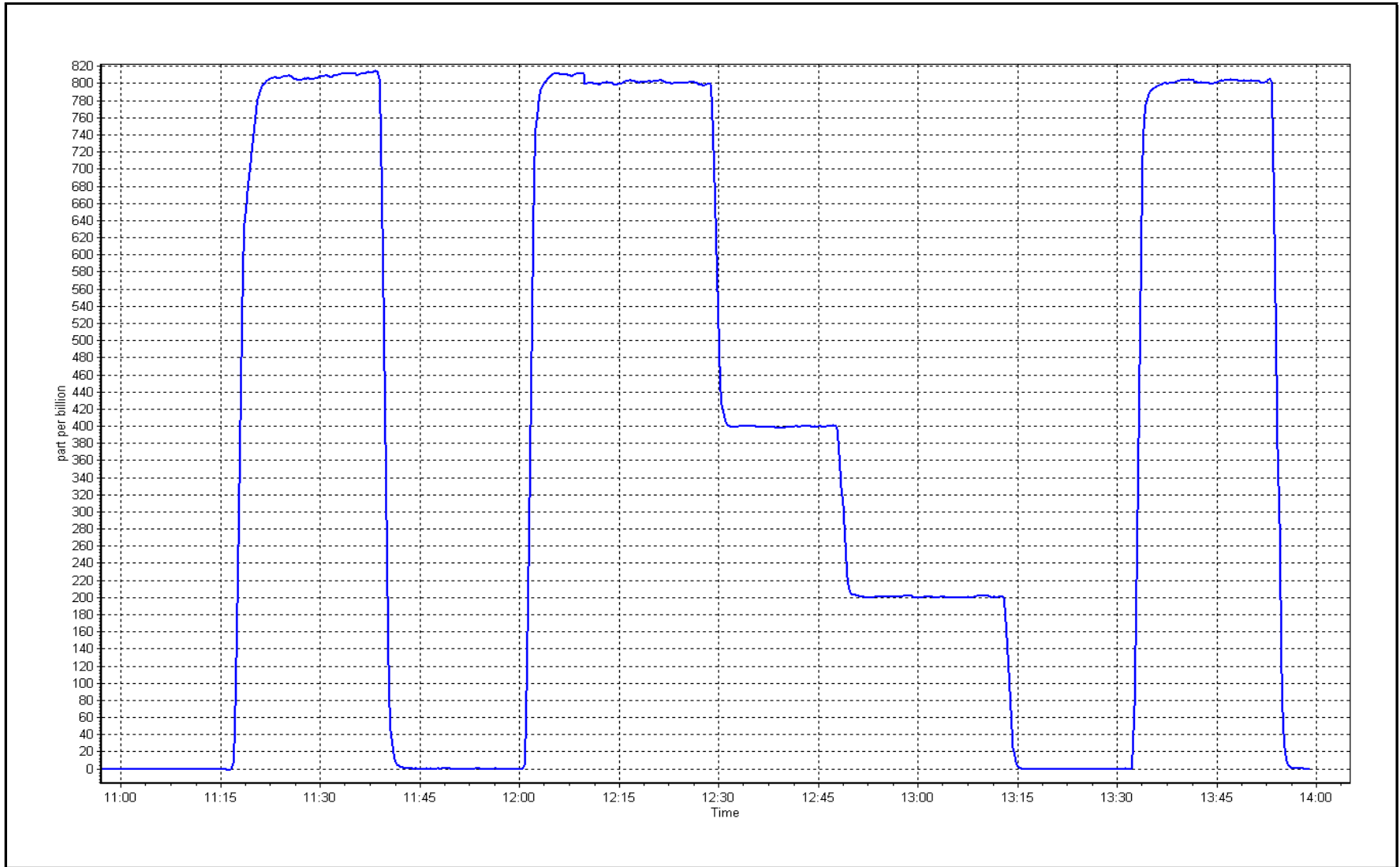
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	-0.1	----	Correlation Coefficient	0.999998	<b>≥0.995</b>
799.7	800.5	0.9990	Slope	1.000691	<b>0.90 - 1.10</b>
399.8	399.9	0.9997	Intercept	0.227979	<b>+/-30</b>
199.9	201.0	0.9947			



SO2 Calibration Plot

Date: May 14, 2026

Location: Kirby South





# Wood Buffalo Environmental Association

## H2S Calibration Report

### Station Information

Station Name:	Kirby South	Station number:	AMS 507
Calibration Date:	May 21, 2026	Last Cal Date:	April 17, 2026
Start time (MST):	9:55	End time (MST):	14:00
Reason:	Routine		

### Calibration Standards

Cal Gas Concentration:	5.05	ppm	Cal Gas Exp Date:	November 15, 2026
Cal Gas Cylinder #:	<u>DT0019762</u>			
Removed Cal Gas Conc:	5.05	ppm	Rem Gas Exp Date:	NA
Removed Gas Cyl #:	n/a		Diff between cyl:	
Calibrator Make/Model:	Teledyne API T700		Serial Number:	2445
ZAG Make/Model:	Teledyne API T701H		Serial Number:	880

### Analyzer Information

Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1150840012
Converter make:	Global	Converter serial #:	2022-197
Analyzer Range	0 - 100 ppb	Converter Temp:	325 degC

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
Calibration slope:	0.980669	0.985813	Backgd or Offset:	1.70	1.71
Calibration intercept:	0.080000	0.000000	Coeff or Slope:	1.072	1.072

### H2S As Found Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Baseline Adjusted Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90-1.10</i>
As found zero	5000	0.0	0.0	0.0	----
As found High point	4921	79.2	80.0	81.1	0.986
As found Mid point	4960	39.6	40.0	40.2	0.995
As found Low point	4980	19.8	20.0	19.9	1.005
New cylinder response					
Baseline Corr As found:	81.1	Prev response:	78.53	*% change:	3.2%
Baseline Corr 2nd AF pt:	40.2	AF Slope:	1.014959	AF Intercept:	-0.220000
Baseline Corr 3rd AF pt:	19.9	AF Correlation:	0.999965	* = > +/-5% change initiates investigation	

### H2S Calibration Data

Set Point	Dilution air flow rate (sccm)	Source gas flow rate (sccm)	Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Calibrator zero	5000	0.0	0.0	0.1	----
High point	4921	79.2	80.0	78.9	1.014
Mid point	4960	39.6	40.0	39.4	1.015
Low point	4980	19.8	20.0	19.6	1.020
As left zero	5000	0.0	0.0	0.2	----
As left span	4921	79.2	80.0	78.1	1.024
SO2 Scrubber Check	4919	80.0	800.2	0.0	----
Date of last scrubber change:	July 25, 2023		Ave Corr Factor		1.016
Date of last converter efficiency test:	September 18, 2025		102.4% efficiency		

Notes: Inlet filter changed after as founds, scrubber check passed, no adjustments made.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

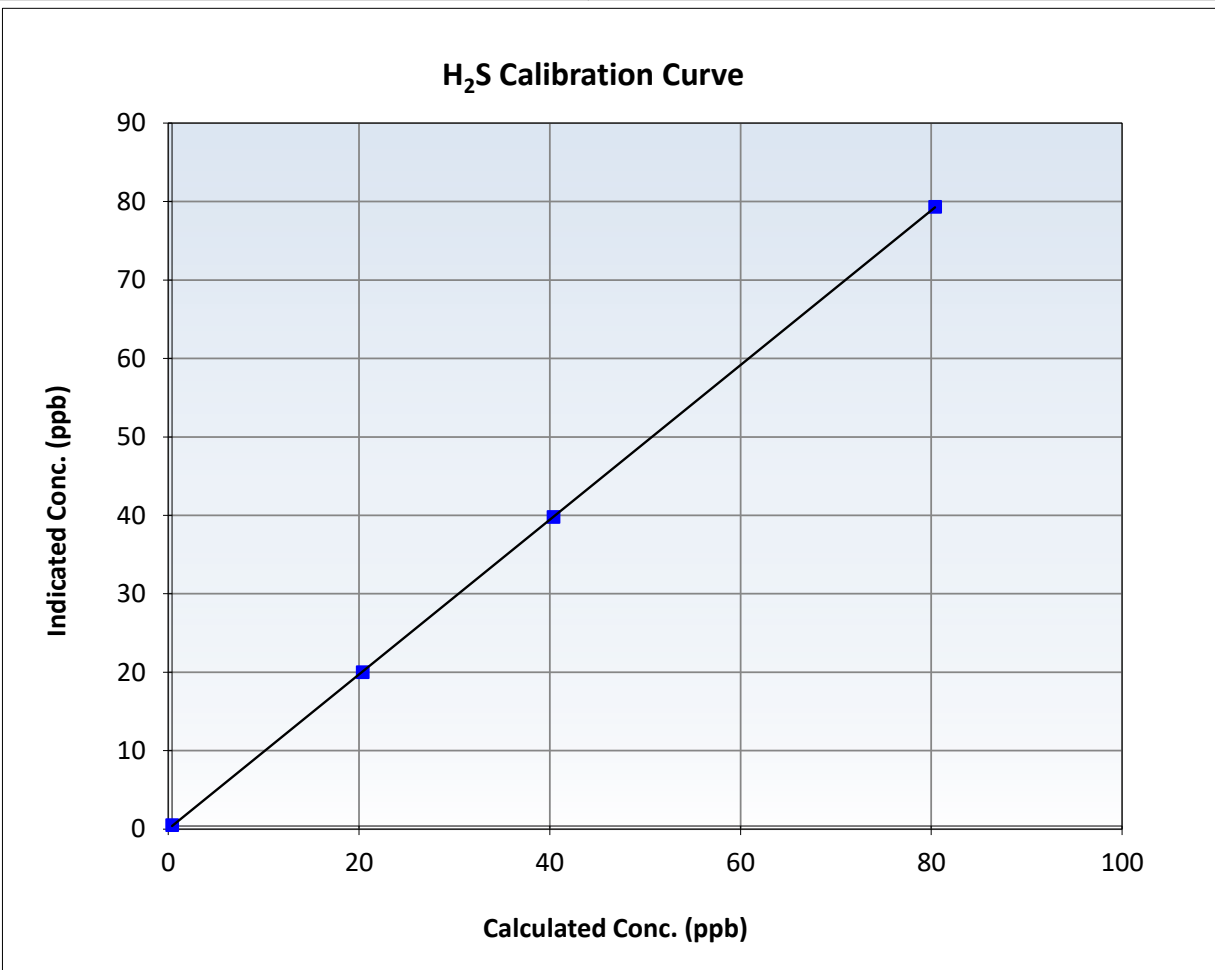
## H2S Calibration Summary

### Station Information

Calibration Date:	May 21, 2026	Previous Calibration:	April 17, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	9:55	End Time (MST):	14:00
Analyzer make:	Thermo 43i-TLE	Analyzer serial #:	1150840012

### Calibration Data

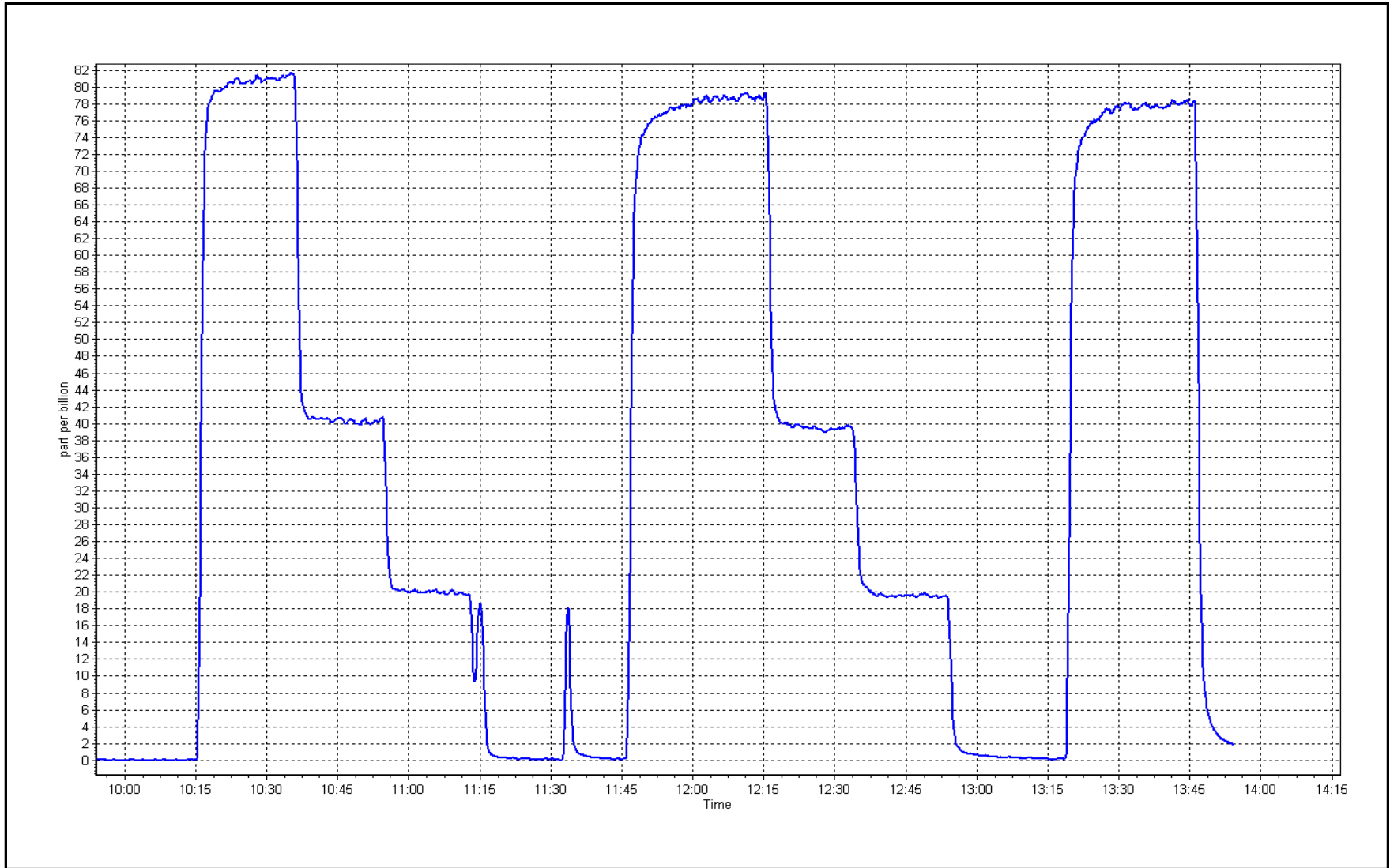
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.0	0.1	----	Correlation Coefficient	0.999992	$\geq 0.995$
80.0	78.9	1.0138	Slope	0.985813	$0.90 - 1.10$
40.0	39.4	1.0151	Intercept	0.000000	$\pm 3$
20.0	19.6	1.0203			



H2S Calibration Plot

Date: May 21, 2026

Location: Kirby South







# Wood Buffalo Environmental Association

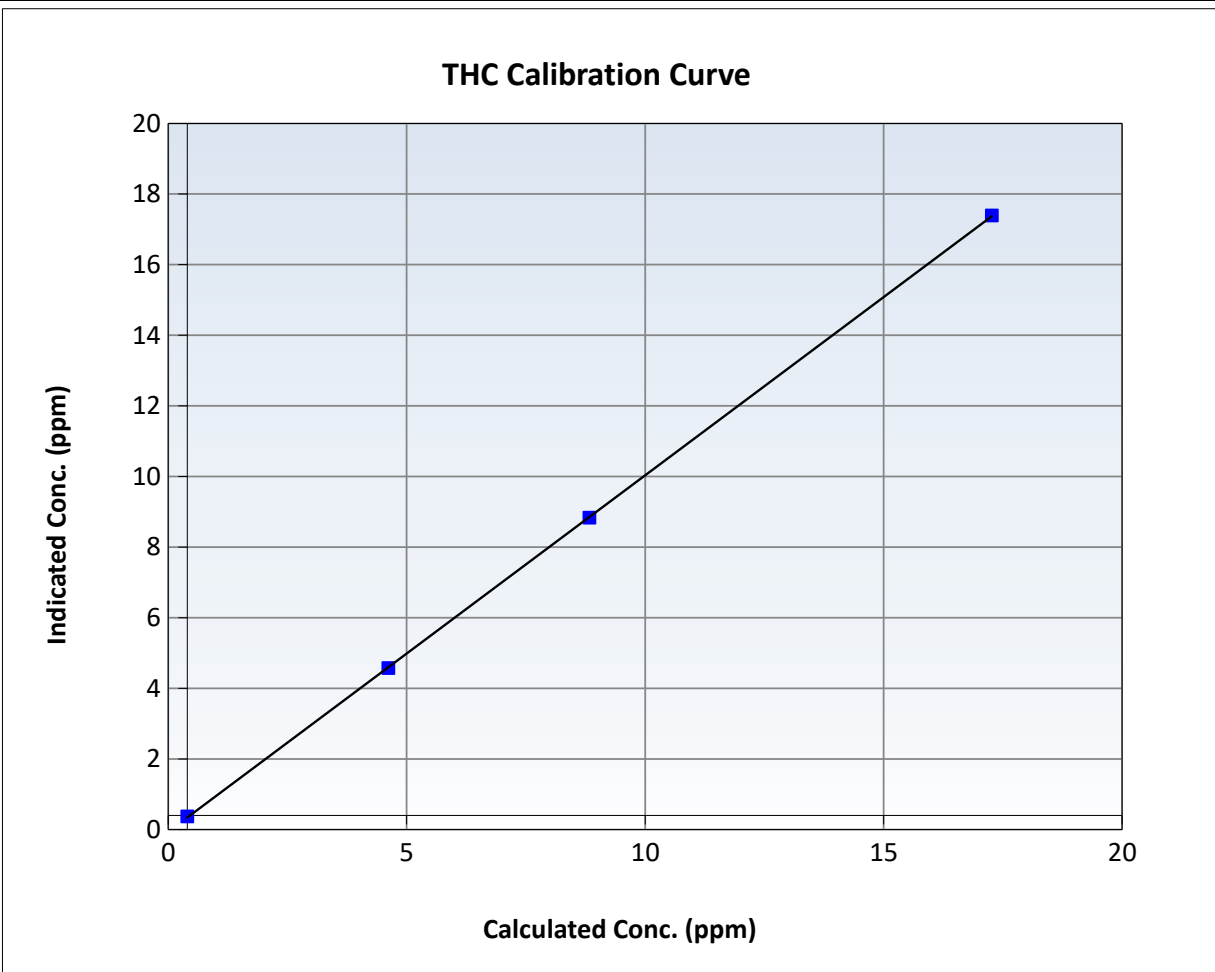
## THC Calibration Summary

### Station Information

Calibration Date:	May 14, 2026	Previous Calibration:	April 8, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	10:56	End Time (MST):	13:59
Analyzer make:	Thermo 51i-LT	Analyzer serial #:	1182340005

### Calibration Data

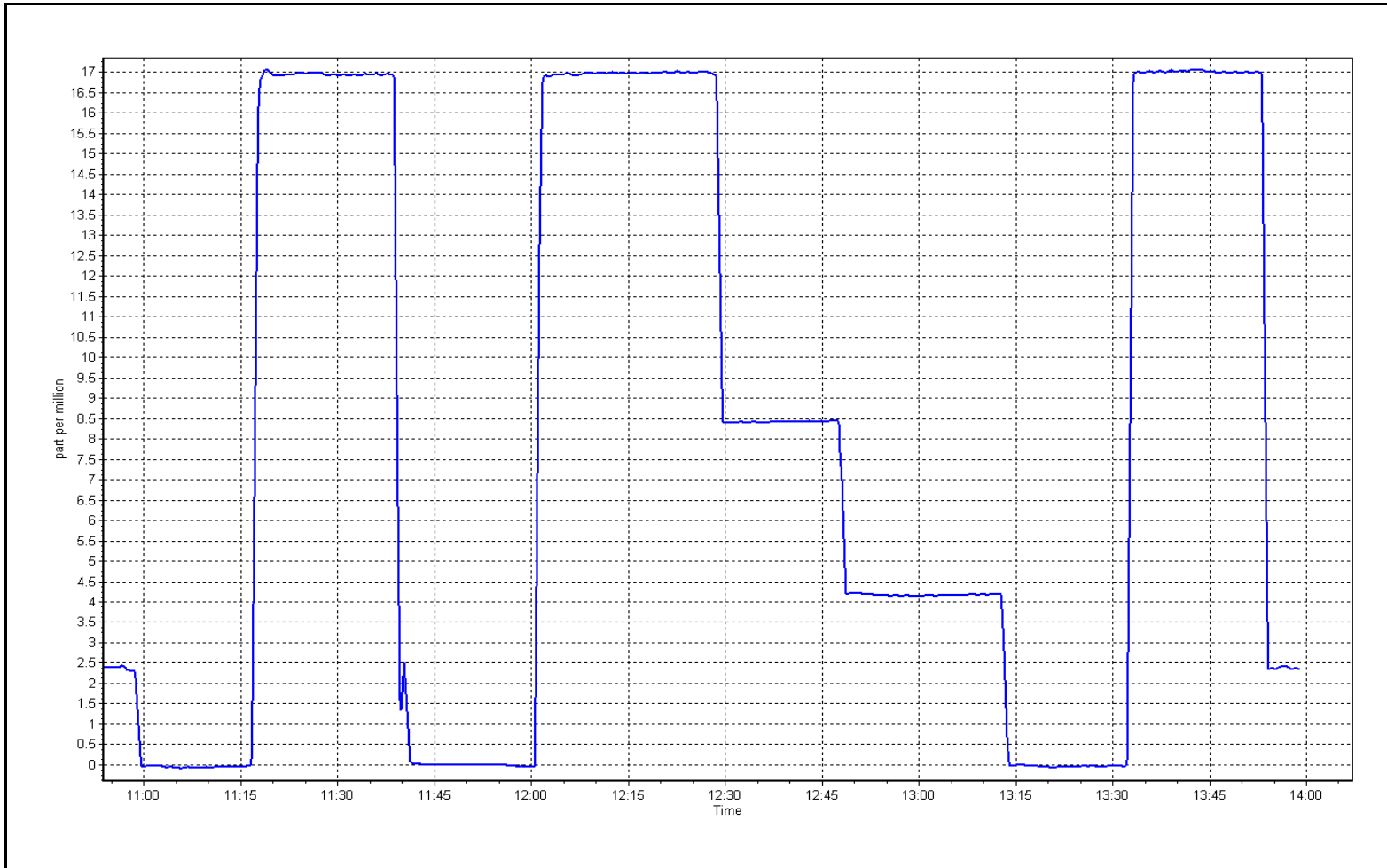
Calculated Concentration (ppm) (Cc)	Indicated Concentration (ppm) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<u>Limits</u>
0.00	-0.03	----	Correlation Coefficient	0.999986	<span style="color: red;">≥0.995</span>
16.87	16.99	0.9929	Slope	1.009566	<span style="color: red;">0.90 - 1.10</span>
8.43	8.43	1.0000	Intercept	-0.057831	<span style="color: red;">+/-1.5</span>
4.22	4.18	1.0097			



THC Calibration Plot

Date: May 14, 2026

Location: Kirby South





# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Station Information

Station Name: Kirby South  
 Station number: AMS 507  
 Calibration Date: May 25, 2026  
 Last Cal Date: April 17, 2026  
 Start time (MST): 10:18  
 End time (MST): 15:01  
 Reason: Routine

### Calibration Standards

NO Gas Cylinder #: DT0019572  
 NOX Cal Gas Conc: 60.00 ppm  
 Removed Cylinder #: NA  
 Removed Gas NOX Conc: 60.00 ppm  
 NOX gas Diff:  
 Calibrator Model: Teledyne API T700  
 ZAG make/model: Teledyne API T701H  
 Cal Gas Expiry Date: January 5, 2032  
 NO Cal Gas Conc: 59.90 ppm  
 Removed Gas Exp Date: NA  
 Removed Gas NO Conc: 59.90 ppm  
 NO gas Diff:  
 Serial Number: 2445  
 Serial Number: 880

### As Found Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NO <sub>x</sub> concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>x</sub> concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>x</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Baseline Adjusted NO Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>
As found zero	5000	0.0	0.0	0.0	0.0	-0.5	0.0	-0.5	----	----
AF High point	4933	66.8	801.6	800.3	1.3	794.0	786.2	7.8	1.0090	1.0179
AF Mid point										
AF Low point										
New cyl resp										
Previous Response	NO <sub>x</sub> = 798.3 ppb		NO = 792.5 ppb			<i>* = &gt; +/-5% change initiates investigation</i>		*Percent Change	NO <sub>x</sub> = -0.5%	
Baseline Corr 1st pt	NO <sub>x</sub> = 794.5 ppb		NO = 786.2 ppb			<u>As Found Statistics</u>		*Percent Change	NO = -0.8%	
Baseline Corr 2nd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO <sub>x</sub> r <sup>2</sup> :	Nx SI:	Nx Int:	
Baseline Corr 3rd pt	NO <sub>x</sub> = NA ppb		NO = NA ppb			As found	NO r <sup>2</sup> :	NO SI:	NO Int:	
						As found	NO <sub>2</sub> r <sup>2</sup> :	NO <sub>2</sub> SI:	NO <sub>2</sub> Int:	

### As Found GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO <sub>2</sub> concentration (ppb) (Cc)	Indicated NO <sub>2</sub> concentration (ppb) (Ic)	Baseline Adjusted NO <sub>2</sub> Correction factor (Cc/(Ic-AFzero)) <i>Limit = 0.90 - 1.10</i>	Converter Efficiency <i>Limit = 96-104%</i>
As Found GPT zero						
As found high GPT point						
As found mid GPT point						
As found low GPT point						



# Wood Buffalo Environmental Association

## NO<sub>x</sub> \ NO \ NO<sub>2</sub> Calibration Report

### Analyzer Information

Analyzer Make: Thermo 42i  
 NOX Range (ppb): 0 - 1000 ppb

Serial Number: 1173480006

### Calibration Statistics

	<u>Start</u>	<u>Finish</u>
NO <sub>x</sub> Cal Slope:	0.996951	1.001698
NO <sub>x</sub> Cal Offset:	-0.913617	-1.353594
NO Cal Slope:	0.992346	1.000529
NO Cal Offset:	-1.693676	-1.933627
NO <sub>2</sub> Cal Slope:	0.985703	0.983671
NO <sub>2</sub> Cal Offset:	1.562237	0.847410

### Instrument Settings

	<u>Start</u>	<u>Finish</u>		<u>Start</u>	<u>Finish</u>
NO coeff or slope:	0.715	0.725	NO bkgnd or offset:	8.1	8.1
NOX coeff or slope:	0.999	0.996	NOX bkgnd or offset:	8.7	8.8
NO2 coeff or slope:	1.000	1.000	Reaction cell Press:	143.2	142.6

### Dilution Calibration Data

Set Point	Dilution flow rate (sccm)	Source gas flow rate (sccm)	Calculated NOx concentration (ppb) (Cc)	Calculated NO concentration (ppb) (Cc)	Calculated NO2 concentration (ppb) (Cc)	Indicated NOx concentration (ppb) (Ic)	Indicated NO concentration (ppb) (Ic)	Indicated NO2 concentration (ppb) (Ic)	NOx Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	NO Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>
Cal zero	5000	0.0	0.0	0.0	0.0	-0.4	0.1	-0.5	----	----
High point	4933	66.8	801.6	800.3	1.3	802.2	799.8	2.2	0.9993	1.0006
Mid point	4967	33.4	400.8	400.1	0.7	399.4	397.4	2.1	1.0035	1.0069
Low point	4983	16.7	200.4	200.1	0.3	198.6	196.2	2.3	1.0091	1.0197
As left zero	5000	0.0	0.0	0.0	0.0	-0.5	0.1	-0.6	----	----
As left span	4933	66.8	801.6	406.4	395.2	793.8	406.4	387.4	1.0099	1.0000
Average Correction Factor									1.0040	1.0091

### GPT Calibration Data

O3 Setpoint (ppb)	Indicated NO Reference concentration (ppb)	Indicated NO Drop concentration (ppb)	Calculated NO2 concentration (ppb) (Cc)	Indicated NO2 concentration (ppb) (Ic)	NO2 Correction factor (Cc/Ic) <i>Limit = 0.95-1.05</i>	Converter Efficiency <i>Limit = 96-104%</i>
Cal zero	----	----	0.0	-0.5	----	----
High GPT point	798.1	404.7	394.7	388.5	1.0161	98.4%
Mid GPT point	798.1	629.9	169.5	168.6	1.0056	99.4%
Low GPT point	798.1	714.7	84.7	85.2	0.9946	100.5%
Average Correction Factor					1.0054	99.5%

Notes: Inlet filter changed after as founds and span adjusted.

Calibration Performed By: Jason Brooks



# Wood Buffalo Environmental Association

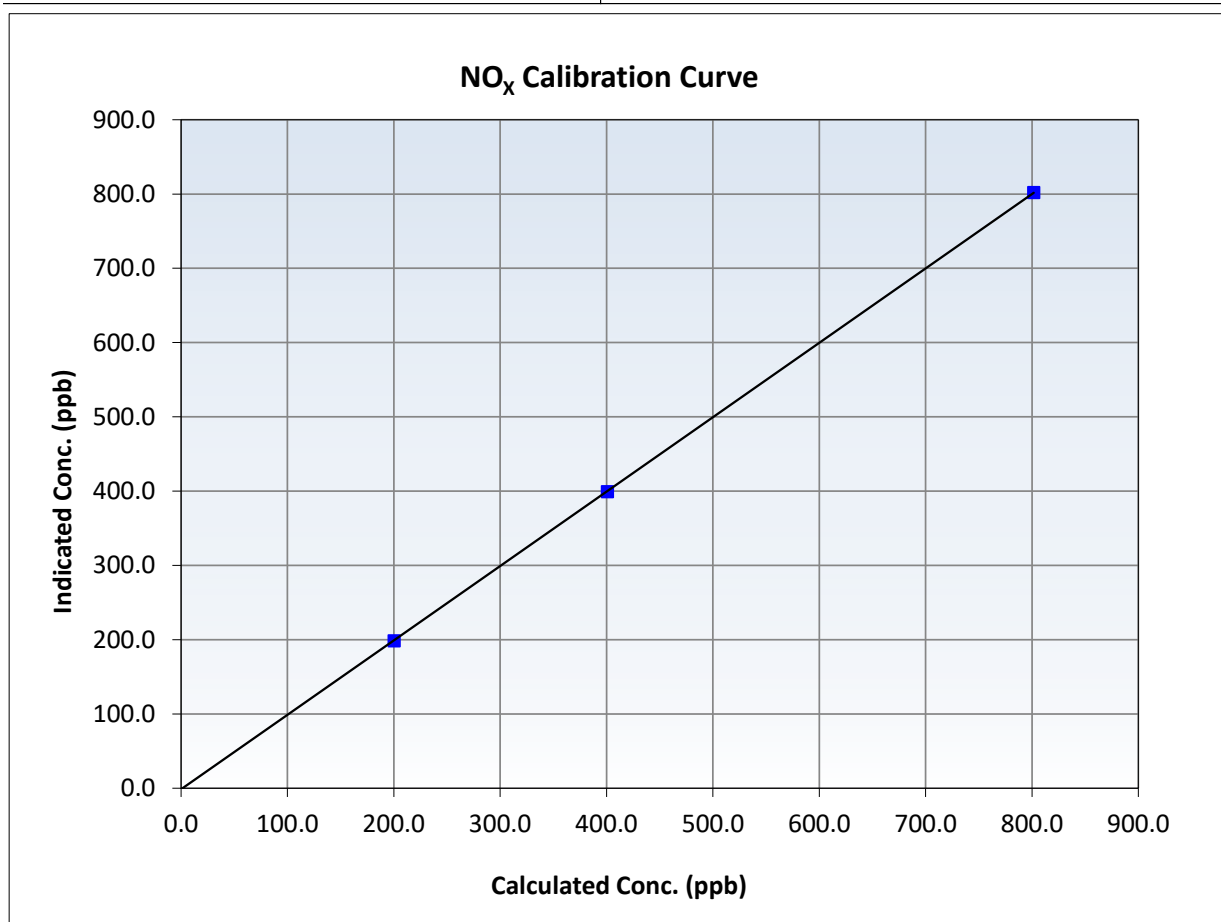
## NO<sub>x</sub> Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 17, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	10:18	End Time (MST):	15:01
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.4	----	Correlation Coefficient	0.999993	≥0.995
801.6	802.2	0.9993	Slope	1.001698	0.90 - 1.10
400.8	399.4	1.0035	Intercept	-1.353594	+/-20
200.4	198.6	1.0091			





# Wood Buffalo Environmental Association

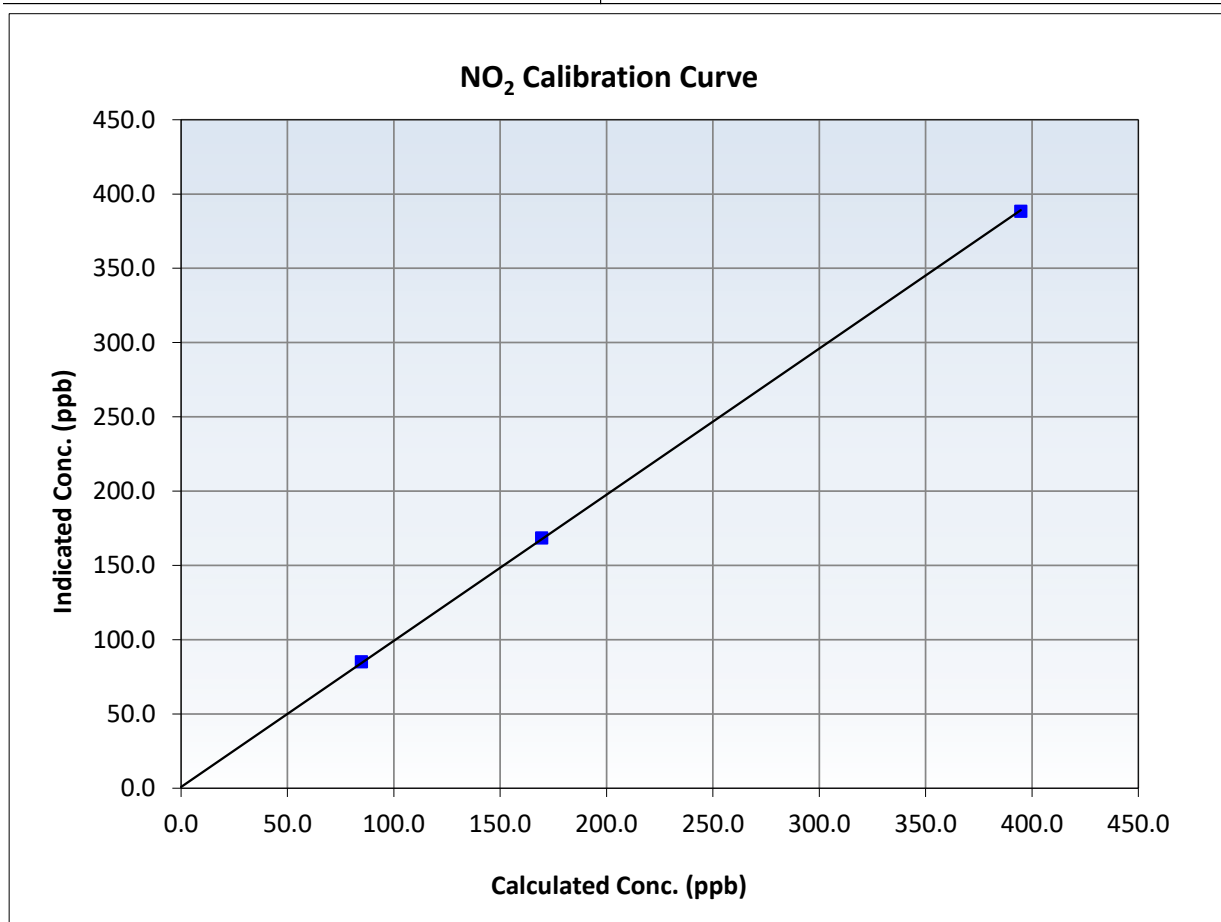
## NO<sub>2</sub> Calibration Summary

### Station Information

Calibration Date:	May 25, 2026	Previous Calibration:	April 17, 2026
Station Name:	Kirby South	Station Number:	AMS 507
Start Time (MST):	10:18	End Time (MST):	15:01
Analyzer make:	Thermo 42i	Analyzer serial #:	1173480006

### Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	-0.5	----	Correlation Coefficient	0.999950	<i>≥0.995</i>
394.7	388.5	1.0161	Slope	0.983671	<i>0.90 - 1.10</i>
169.5	168.6	1.0056	Intercept	0.847410	<i>+/-20</i>
84.7	85.2	0.9946			





# Wood Buffalo Environmental Association

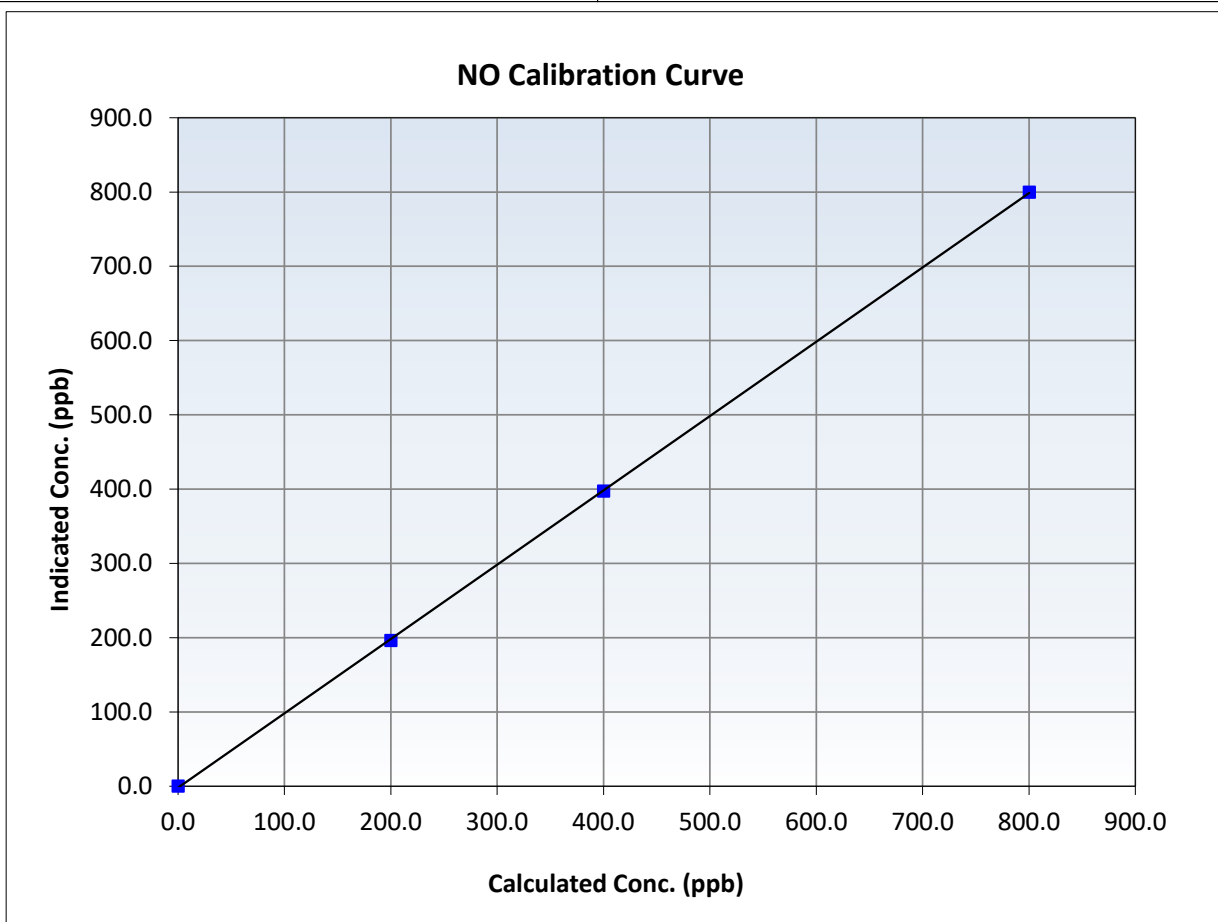
## NO Calibration Summary

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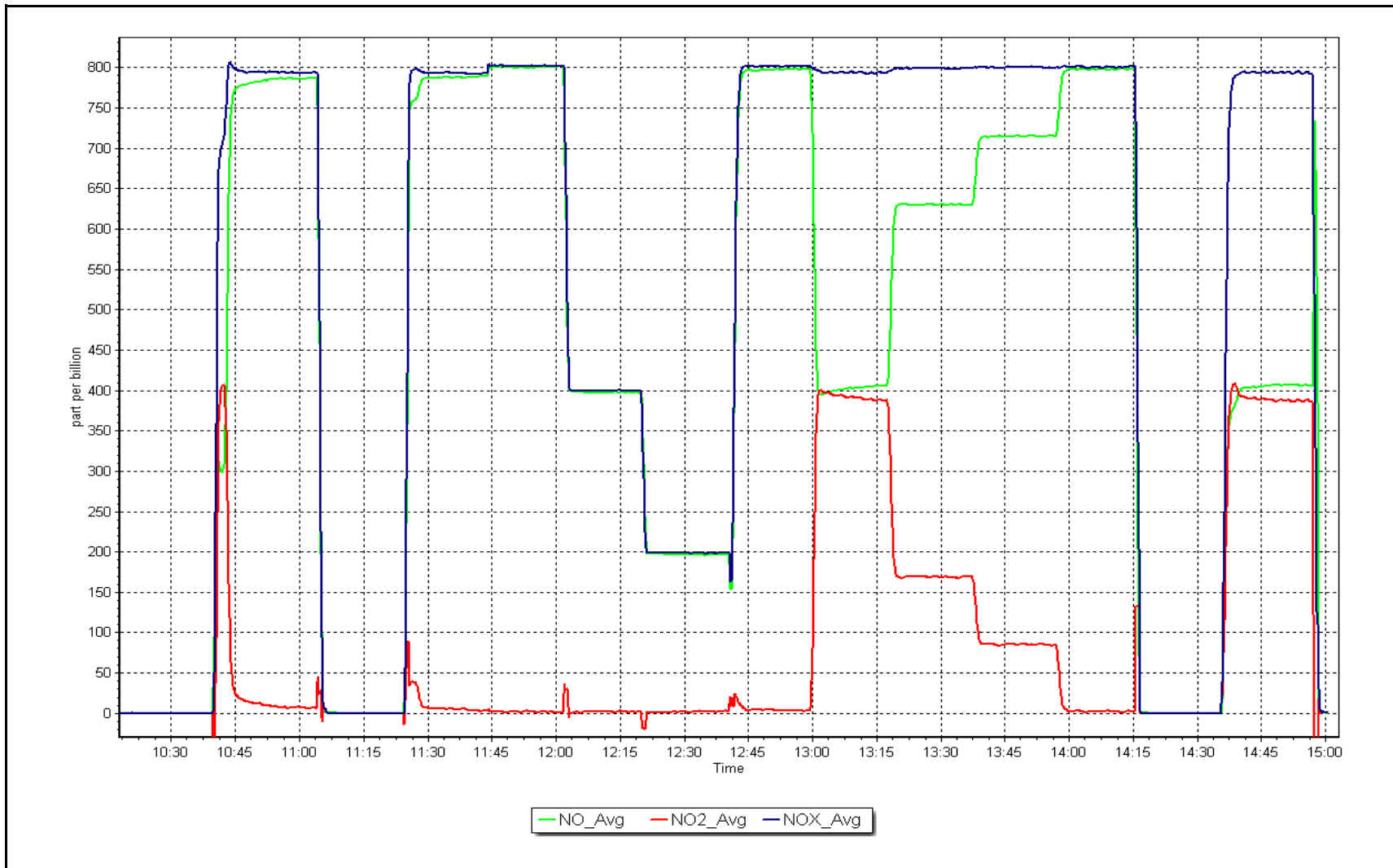
Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation		<i>Limits</i>
0.0	0.1	----	Correlation Coefficient	0.999971	<span style="color: red;">≥0.995</span>
800.3	799.8	1.0006	Slope	1.000529	<span style="color: red;">0.90 - 1.10</span>
400.1	397.4	1.0069	Intercept	-1.933627	<span style="color: red;">+/-20</span>
200.1	196.2	1.0197			



NO<sub>x</sub> Calibration Plot

Date: May 25, 2026

Location: Kirby South





End of Report