

**Report By:**

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**Report: TAB Report**  
**Function: Test, Adjust, & Balance**  
**Date: 01/21/2026**  
**Completed By: National TAB**

**PROJECT**  
**01-19-26 QT #0785 BUFORD, GA**

2900 BUFORD DR

BUFORD, GA

**Client**

QUIKTRIP  
4705 SOUTH 129TH EAST AVENUE  
TULSA, OK 74134

# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

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## Project Summary

### Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

### RTU's (Roof Top Units)

Each of the RTU's was measured with a flow hood to establish total flow. The total flow was then adjusted via the VFD so that airflow fell within design tolerances. All diffusers on the kitchen RTU were balanced to the engineer's design flow. The diffusers on the sales floor were only adjusted when there were noticeable issues present like drafting or dampers that were found completely closed. The Hoods On outside air rate was set by first establishing the typical QT set point at the Emerson controller and then making manually adjustments on the roof. The hoods off airflow setpoint was found by adjusting the damper position at the Emerson controller until the design airflow was achieved. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. After completion of TAB all overrides were released.

### Kitchen Exhaust Hood & Associated Fans

The kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow.

### Restroom Exhaust Fans

The restroom exhaust fans were measured with a flow hood. The total flow was balanced for the fan with the exception of the new grille over the combi-oven, which was balanced to the listed design.

### Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

### AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HOOD ON OA		HOOD OFF OA		HOOD ON EXHAUST		HOOD OFF EXHAUST	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU 1	SALES	800	784	350	364				
RTU-2	SALES	800	825	350	337				
RTU-3	BOH/KITCHEN	800	798	350	358				
EF-1	RR/JANITOR					750	727	750	727
EF-3	HOOD					1350	1298	0	0
<b>TOTALS</b>		<b>2400</b>	<b>2407</b>	<b>1050</b>	<b>1059</b>	<b>2100</b>	<b>2025</b>	<b>750</b>	<b>727</b>

#### HOODS ON

##### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2407
TOTAL EXHAUST	2100	2025
<b>NET AIRFLOW</b>	<b>300</b>	<b>382</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0148
SIDE	0.0173
REAR	0.0044
<b>AVERAGE</b>	<b>0.0122</b>

#### HOODS OFF

##### NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1059
TOTAL EXHAUST	750	727
<b>NET AIRFLOW</b>	<b>300</b>	<b>332</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0133
SIDE	0.0148
REAR	0.0053
<b>AVERAGE</b>	<b>0.0111</b>

NOTES:

## CheckList List

- 01: RTU's/AHU's
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests



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CheckList Information

**Name :** 01: RTU's/AHU's **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 01/08/2026 - Trinity Dodds - National TAB  
**Completed Date :** 01/21/2026 - Sagar Patel - National TAB

CheckList Item Details

RTU's/AHU's

Evaporator coils are clean? Pass

Comment:

Condenser coils are clean? Pass

Comment:

Gas piping is installed and valves are turned on? N/A

Comment:

Unit free of noticeable noise and vibration Pass

Comment:



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**CheckList Information**

**Name :** 02: Exhaust Fans **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 01/08/2026 - Trinity Dodds - National TAB

**Completed Date :** 01/21/2026 - Sagar Patel - National TAB

**CheckList Item Details**

EF's

Hinge kit installed installed on hood fan?	Pass
--------------------------------------------	------

Comment:

Flex conduit is long enough so that fan can be completely tilted back?	Pass
------------------------------------------------------------------------	------

Comment:

No major leakage around the fan base	Pass
--------------------------------------	------

Comment:

Unit is free of noise and vibration	Pass
-------------------------------------	------

Comment:



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**CheckList Information**

**Name :** 03: Hoods **Status :** Completed  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB  
**Created Date :** 01/08/2026 - Trinity Dodds - National TAB  
**Completed Date :** 01/21/2026 - Sagar Patel - National TAB

**CheckList Item Details**

**HOODS**

---

**Hood is free of alarms?** Pass

**Comment:**

---

**Hood is free of damage?** Pass

**Comment:**

---

**End panels are installed per prototype?** Pass

**Comment:**

---



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**CheckList Information**

**Name :** 04: Final Tests **Status :** Completed

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

**Created Date :** 01/08/2026 - Trinity Dodds - National TAB

**Completed Date :** 01/21/2026 - Sagar Patel - National TAB

**CheckList Item Details**

**FINAL CHECKS**

**HOOD CAPTURE TEST**

**List kitchen equipment turned on for testing**

**Comment:**

Fryer and Oven

**List smoke candle type used**

**Comment:**

45 Second Smoke Emitter

**Smoke test capture % - Perimeter of hood**

**Comment:**

100%

**Smoke test capture % - Top of cooking surface**

**Comment:**

100%

**WITNESS**

**Date test was completed**

01/21/2026

**Comment:**

Video

---

**TAB tech name / Firm**

**Comment:**

Sagar Patel / National TAB Intelligence

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**Site super name / Firm**

**Comment:**

Not on Site

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**Owner representative name / Firm (if Applicable)**

**Comment:**

N/A

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**BUILDING PRESSURE**

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**Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)**

Pass

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**Comment:**

---



# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202107-ANEK21691
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	N/L
Frame	N/L
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4302
SF RPM	-	1261
OA CFM (Hoods On)	800	784
OA CFM (Hoods Off)	350	364
RL Voltage	-	139 VFD
RL Amperage	-	7.16 VFD
VFD Max SetPt	-	43 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.46"
Fan Suction SP	-	-0.64"
Fan Discharge SP	-	0.43"
Total ESP	-	1.10"
Fan Total SP	-	1.07"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 01/21/2026

**Unit Data - PHOTO LOG**



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# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	202107-ANEK21692
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	N/L
Frame	N/L
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4183
SF RPM	-	1261
OA CFM (Hoods On)	800	825
OA CFM (Hoods Off)	350	337
RL Voltage	-	139 VFD
RL Amperage	-	7.15 VFD
VFD Max SetPt	-	43 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.44"
Fan Suction SP	-	-0.62"
Fan Discharge SP	-	0.41"
Total ESP	-	1.06"
Fan Total SP	-	1.03"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 01/21/2026

**Unit Data - PHOTO LOG**



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# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202107-ANEK21693
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

Motor Data	
	Actual
Motor MFG	N/L
Frame	N/L
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4069
SF RPM	-	1480
OA CFM (Hoods On)	800	798
OA CFM (Hoods Off)	350	358
RL Voltage	-	171 VFD
RL Amperage	-	8.27 VFD
VFD Max SetPt	-	48 Hz
VFD Min SetPt	-	24 Hz
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.72"
Fan Suction SP	-	-0.93"
Fan Discharge SP	-	0.68"
Total ESP	-	
Fan Total SP	-	

General	
	Actual
Fan Rotation Correct	
Unit Filters Clean	
Condensate Drain Installed	

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## Unit Data - PHOTO LOG



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# National TAB

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## AHU/RTU

**Diffuser Supply (GRD)**

**RT-3/BOH/KITCHEN**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	SUPPORT SERVICE	SI	12"	800	1	651	677	742	92.8
SGRD2	SUPPORT SERVICE	SI	12"	800	1	768	814	761	95.1
SGRD3	SUPPORT SERVICE	SI	12"	800	1	826	823	798	99.8
SGRD4	SUPPORT SERVICE	SI	12"	800	1	652	724	724	90.5
SGRD5	DOCK	ES	10"	500	1	524	523	523	104.6
SGRD6	WORKROOM	ES	8"	250	1	253	248	248	99.2
SGRD7	WORKROOM	ES	8"	250	1	303	273	273	109.2
Total				4200		3977	4082	4069	96.88%

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# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

## System/Unit: FAN - Exhaust

Asset: EF1

AREA:RESTROOMS/JANITOR

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR50HFA
Serial Num	-	4991234
Type	-	DOWBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	HSSSA
Frame	-	N/L
Horsepower	-	0.5
Motor Rpm	-	1625
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.4
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	750	727
Fan Rotation	-	CCW
System SetPt	-	LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	-	0.34"
Fan Inlet SP	-	-0.34"
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 01/21/2026

Notes:

[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 01/21/2026

**Unit Data - PHOTO LOG**



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# National TAB

Project:01-19-26 QT #0785 BUFORD, GA

Diffuser Ret/Exh (GRD)

## EF1/RESTROOMS/JANITOR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD4	SUPPORT SERVICE	RI	8"	150	1	191	153	153	102.0
Total				150		191	153	153	102%

Completed By: Sagar Patel on 01/21/2026



# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

## System/Unit: FAN - Exhaust

Asset: EF3

AREA:KITCHEN HD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8225572
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELECO GREEN
Frame	-	N/L
Horsepower	1/2	0.5
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.8
Service Factor	-	N/L

Test Data		
	Design	Actual
CFM	1350	1298
Fan RPM	-	1180
Fan Rotation	-	CCW
Motor RPM	-	1180
System SetPt	-	52.6 Hz (65% on MSC))
RL Voltage	-	208
RL Amperage	-	1.8
Total ESP	-	0.43"
Fan Inlet SP	-	-0.43"
Fan Discharge SP	-	ATM

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## Unit Data - PHOTO LOG



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# National TAB

Project: 01-19-26 QT #0785 BUFORD, GA

## System/Unit: Kitchen Hood Type I

Asset: HD1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8225572
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	108"	108"
Hood Width	60"	60"

Test Data Exhaust		
	Design	Actual
Filter Type	-	CAPTRATE SOLO FILTER
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	96
Filter2 FPM	-	108
Filter3 FPM	-	107
Filter4 FPM	-	109
Filter5 FPM	-	111
Filter6 FPM	-	97
Filter Ave FPM(corr)	-	104
CFM	1350	1298

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	OVEN

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**Unit Data - PHOTO LOG**



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