

BOILER INSTALL REPORT

141 E 56th Street, New York NY.

FITCH FUEL CATALYST

Prepared by:

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Purpose: Measure effect of Fitch Fuel Catalyst on emissions and boiler efficiency.

Fitch Fuel Catalyst – 1 pieces Model FHD5-UL manufactured by APSI installed by Abilene Inc.

Property Managers: Building Management Inc.

Boiler type: 1 x Federal FST 150 **Oil type:** #6

Test Personnel: Alec Volyand Abilene Inc.

Data: Degree day data collected from KNYEW45, Hunter College East Central Park. Fuel deliveries provided by Building Management Inc.

Record of Events

1. April 11, 2011

Baseline Emissions and efficiency data recorded.
Fitch Catalyst installed and system operated for 30 minutes.
Boiler combustion efficiency recorded.

2. September 13, 2011

DAR inspection found CO2 above required limits of 14% even though there was no smoke and efficiency was 88%. The boiler was adjusted accordingly with a minor loss in efficiency

Combustion & emissions measurements	Baseline data 7/05/2011	With Fitch 7/05/2011	DAR Set back CO2 9/13/11	% Change
Net stack temperature	465	447	440	-5.4%
CO2 %	12.5%	15.1%	14.0%	12.0%
Efficiency %	83.0%	88.0%	85.0%	2.4%
1/15/10 to 4/4/11 base. 11/14/11 to 5/9/12 Fitch	Gallons Per Degree day	7.11	5.76	-19.0%
Estimated gallons saved for Fitch period		3,901	At \$3.15/ gal	\$12,288
Estimated savings on annual 33,000 gallons use		6,266	At \$3.15/ gal	\$19,738

Conclusions – Results from Fitch Install

1. Boiler combustion efficiency improved by 2.4 %
2. Approximate cost of product/ installation \$7,000
3. Estimated annual fuel savings 6,266 gallons – Approx \$19,738 at \$3.15/ gallon
4. Return on investment 282%
5. CO2 carbon footprint reduced by 152,000 pounds