

INVOICE

Phoenix Chemical Laboratory, Inc.

FUEL AND LUBRICANT TECHNOLOGISTS

3953 W. SHAKESPEARE AVENUE

CHICAGO, IL 60647-3497

TELEPHONE 773-772-3577

FAX NO. 773-772-3778

October 30, 2014

National Transportation Safety Board

Laboratory No. 14 10 22 10

Attn: John Brannen

Sample Marked: Fuel, Truck Sample

For: John Brannen,

Distillation (ASTM D86)

Karl Fischer Water

Particle Weight

Existent Gum, Air Jet

Total:

Balance charged to VISA

Balance due:

\$

\$

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RECEIVED FROM: National Transportation Safety Board



Attn: John Brannen

SAMPLE OF Fuel

LABORATORY NO. 14 10 22 10

MARKED Truck Sample

Page 2 of 2

Karl Fischer Water, ppm 167

Particle Weight, mg/L

Total 0.40

Non-Combustible 0.05

Existent Gum, Air Jet, mg/100 mL

Unwashed 13.4

Heptane Washed <0.2

Conclusions:

The water content, particulate content and existent gum content of the sample are acceptable. The boiling range indicates that the sample is moderately weathered although not sufficiently so to suggest significant contamination.



Arthur A. Krawetz

Phoenix Chemical Laboratory, Inc.

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SAMPLE OF Fuel

LABORATORY NO. 14 10 22 10

MARKED Truck Sample

Distillation °F, (ASTM D86)

	% Evaporated °F	Required by ASTM D910 – 100 LL
Initial Boiling Point	108	
5	121	
10	137	167 max.
20	159	
30	182	
40	194	167 min
50	204	221 max
60	209	
70	217	
80	221	
90	225	275 max
95	296	
Final Boiling Point	348	
10%+50% Evaporated	362	275 min
Recovery, %	98.0	97.0 min
Residue, %	0.3	1.5 max
Loss, %	1.7	1.5 max