



PANAIR LABORATORY, INC.

4301 N.W.72 AVE., MIAMI, FL 33166 (305) 594-9055 FAX (305) 477-9137

GASOLINE ANALYSIS REPORT

LABORATORY NO.

12755G

AWB NO.

001-28158001

ORIGIN Grand Cayman	FUEL TYPE Mogas	CUSTOMER J&R Industrial Serv.
DATE SAMPLED 1/23/15	RECEIVED AT LAB 2/3/15	TEST COMPLETED 2/4/15
REFINER	REFINER'S DESIGNATION Mogas	SAMPLED FROM 89 gasoline compt. #1 of tank

THIS REPORT RELATES ONLY TO THE SAMPLE TESTED AND DOES NOT GUARANTEE THE BULK OF THE MATERIAL TO BE OF EQUAL QUALITY.

API GRAVITY @ 60 (D4052)

57.43

SPECIFIC GRAVITY @ 60 F (CONV.)

0.7490

APPEARANCE (D4176)

OLEFINS, % VOL. (D 1319)

ODOR

COLOR VISUAL

1a

CORROSION, COPPER STRIP (D 130)

DOCTOR TEST (IP 30)

1

EXISTENT GUM, MG/100 ML (D 381/ IP 131)

1

WASHED GUM, MG/100 ML (D 381)

FREEZE POINT, C (D 2386)

VAPOR LOCK INDEX (D323)

DRIVEABILITY (D4814)

83.8

OCTANE NUMBER, MOTOR (D 2700)

OCTANE SENSITIVITY (RON - MON)

95.9

OCTANE NUMBER, RESEARCH (D 2699)

89.8

ANTI-KNOCK INDEX (R+ M/2)

OXIDATION STABILITY @ 100 C, MINUTES (D 525)

0.67

PARTICULATE MATTER, MG/L, (D 5452)

B-2

FILTER MEMBRANE COLOR RATING (D 5452)

0.802

THRUPUT, LITERS

PHOSPHOROUS CONTENT, MG/L (D 3231)

POTENTIAL GUM, MG/100 ML (D 873)

0.3

MANGANESE, mg/L (D 3831)

SULFUR mg / kg. (D4294)

TETRAETHYLLEAD CONTENT, g/U.S. gal. (D 3237/ IP 362)

LEAD CONTENT g/Liter (CONV.)

9.65/66.5


SILVER CORROSION (D4814 annex)

VAPOR PRESSURE (LB REID/kPa) (D 5191)

ASTM (D 86)

DISTILLATION	C
IBP	33.9
10% Evaporated	49.3
50% Evap.	105.2
90% Evap.	166.3
END POINT	209.3
RECOVERY	97.5 %
RESIDUE	1.1 %
LOSS	1.4 %

☐ Product complies with ASTM D4814 for Mogas test results shown if box is checked


CARL E. JOHNSON, PRESIDENT
PAL-0238 Issued 10-21-13, Revision 1



PANAIR LABORATORY, INC.

4301 N.W.72 AVE., MIAMI, FL 33166 (305) 594-9055 FAX (305) 477-9137

GASOLINE ANALYSIS REPORT

LABORATORY NO.

12756G

AWB NO.

001-28158001

ORIGIN Grand Cayman	FUEL TYPE Mogas	CUSTOMER J&R Industrial Serv.
DATE SAMPLED 1/23/15	RECEIVED AT LAB 2/3/15	TEST COMPLETED 2/4/15
REFINER	REFINER'S DESIGNATION Mogas	SAMPLED FROM 93 gasoline compt. #5 of truck

THIS REPORT RELATES ONLY TO THE SAMPLE TESTED AND DOES NOT GUARANTEE THE BULK OF THE MATERIAL TO BE OF EQUAL QUALITY.

ASTM (D 86)

DISTILLATION	C
IBP	33.1
10% Evaporated	50.0
50% Evap.	115.3
90% Evap.	163.5
END POINT	199.3
RECOVERY	97.5 %
RESIDUE	1.0 %
LOSS	1.5 %

☐ Product complies with ASTMD4814 for Mogas test results shown if box is checked

API GRAVITY @ 60 (D4052)

56.01

SPECIFIC GRAVITY @ 60 F (CONV.)

0.7546

APPEARANCE (D4176)

OLEFINS, % VOL. (D 1319)

ODOR

COLOR VISUAL

CORROSION, COPPER STRIP (D 130)

1a

DOCTOR TEST (IP 30)

3

EXISTENT GUM, MG/100 ML (D 381/ IP 131)

2

WASHED GUM, MG/100 ML (D 381)

FREEZE POINT, C (D 2386)

VAPOR LOCK INDEX (D323)

DRIVEABILITY (D4814)

OCTANE NUMBER, MOTOR (D 2700)

87.2

OCTANE SENSITIVITY (RON - MON)

OCTANE NUMBER, RESEARCH (D 2699)

98.7

ANTI-KNOCK INDEX (R+M/2)

93.0

OXIDATION STABILITY @ 100 C, MINUTES (D 525)

PARTICULATE MATTER, MG/L, (D 5452)

0.45

FILTER MEMBRANE COLOR RATING (D 5452)

B-1

THRUPUT, LITERS

0.762

PHOSPHOROUS CONTENT, MG/L (D 3231)

POTENTIAL GUM, MG/100 ML (D 873)

MANGANESE, mg/L (D 3831)

0.5

SULFUR mg / kg. (D4294)


TETRAETHYLLEAD CONTENT, g/U.S. gal. (D 3237/ IP 362)

LEAD CONTENT g/Liter (CONV.)

SILVER CORROSION (D4814 annex)

9.51/65.5

VAPOR PRESSURE (LB REID/kPa) (D 5191)


CARL E. JOHNSON, PRESIDENT
PAL-0238 Issued 10-21-13, Revision 1



PANAIR LABORATORY, INC.

4301 N.W. 72 AVE. MIAMI, FL 33166 (305) 594-9055

FUEL OIL ANALYSIS

ORIGIN Grand Cayman	FUEL TYPE Diesel	LABORATORY NO. 2555F
DATE SAMPLED 1-23-15	RECEIVED AT LAB 2-3-15	AWB NO. 001-2815 8001
REFINER -----	REFINER'S DESIGNATION Diesel	CUSTOMER J & R Industrial Services
		TEST COMPLETED
		SAMPLED FROM Tank # 2 of Truck

This report relates to the sample tested and does not guarantee the bulk of the material to be of equal

DISTILLATION (D 86)

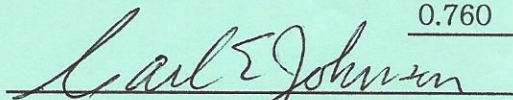
APPEARANCE, VISUAL	Clear and Bright *
ASH, % WGT. (D 482)	
ASPHALTENES, % WGT. (IP 143)	
CARBON RESIDUE CONRADSON (ON 10% B), WGT. (D 189)	
CARBON RESIDUE RAMSBOTTOM (ON 10% B), WGT. (D524)	
CETANE INDEX (D 976)	49.5
CETANE NUMBER (D 613)	
CLOUD POINT F/C (D 2500)	
COPPER CORROSION (3 HRS 122 F/ 212 F) (D 130)	
COLOR, ASTM (D 1500)	
FLASH POINT PENSKY-MARTENS F /C (D 93)	
NET CALORIFIC VALUE, BTU/LB (D240)	
NET CALORIFIC VALUE, BTU/ US gal.,	
GRAVITY, API @ 60 F (D 4052)	35.87
SPECIFIC GRAVITY @ 60 F/ 60 F	0.8454
DENSITY @ 15 C	0.8450
POUNDS PER GALLON @ 60 F	7.02
NEUTRALIZATION NUMBER mg KOH/gm (D 974)	
OXIDATION STABILITY, mg/100 ml. (D 2274)	
POUR POINT F /C(D 97)	
SEDIMENT BY EXTRACTION, % MASS (D 473)	
SEDIMENT BY HOT FILTRATION, % MASS (IP 375)	
SULFUR, % WGT., XRAY (D 4294)	
SULFUR, mg / Kg, XRAY (D 2622)	8.1 (ppm)
VISCOSITY, KINEMATIC @ 50 C mm2/sec. (D 445)	
VISCOSITY, KINEMATIC @ 40C mm2/sec. (D 445)	2.663
WATER BY DISTILLATION, % WGT. (D 95)	
WATER AND SEDIMENT, % VOL. (D 1796)	
WATER AND SEDIMENT, % VOL (D 2709)	0
SUSPENDED SEDIMENT mg/100 ml. (D6217)	0.20
THRUPUT, LITERS	0.760

% RECOVERY	C
IBP	167.5
10	209.8
20	227.7
30	242.2
40	255.0
50	267.9
60	280.2
70	292.9
80	307.1
90	326.2
95	344.1
END POINT	355.0
RECOVERY	98.0 %
RESIDUE	1.5 %
LOSS	0.5 %

Lubricity, HFRR, (D6079)

WEAR SCAR DIAMETER, micron	
MAJOR AXIS, um	
MINOR AXIS, um	
TEST DATE MM/DD/YR	
Nitrogen, % wgt. (Combustion)	
Hydrogen, % wgt. (Combustion)	
BioDiesel Content, % vol. (prEN 14078, mod.) mod.= lab-blended oil standards	
Aromatics, % vol. (D1319)	
Electrical Conductivity, (D2624), ps/m @ Centigrade	
Particle Count, microns.....	Particles/mL
> or = 4	
> or = 6	
> or = 14	
> or = 21	
> or = 25	
> or = 30	
ISO Code >= 4/6/14 (ISO 4406)	

* Appearance (D4176) Pass / 1


CARL E. JOHNSON, PRESIDENT
PAL-0207 Issued 10-17-14, Revision 1