



PANAIR LABORATORY, INC.

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

GASOLINE ANALYSIS REPORT

LABORATORY NO.

12902G-1

AWB NO.

001-78945440

ORIGIN Grand Cayman	FUEL TYPE Mogas	CUSTOMER CIG Petroleum Inspectorate
DATE SAMPLED 2/12/16	RECEIVED AT LAB 2/17/16	TEST COMPLETED 2/19/16
REFINER	REFINER'S DESIGNATION Pure 89	SAMPLED FROM R04

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)

56.70

SPECIFIC GRAVITY @ 60 F (CONV.)

0.7519

DENSITY, KG/M3 @15C

APPEARANCE (VISUAL)

BROMINE NO. (D 1159)

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 LIQUID RATIO = 20 @ C (D 4814)

NON-VOLATILE MATTER, MG/100 ML (D1353)

OCTANE NUMBER, MOTOR (D 2700)

84.4

LEAN RATING (CONVERSION) (D 2700)

OCTANE NUMBER, RESEARCH (D 2699)

95.4

ANTI-KNOCK INDEX (R+ M/2)

89.9

OXIDATION STABILITY @ 100 C, MINUTES (D 525)

PARTICULATE MATTER, MG/L, (D 5452)

FILTER MEMBRANE COLOR RATING (D 5452)

THRUPUT, LITERS

PHOSPHOROUS CONTENT, MG/L (D 3231)

POTENTIAL GUM, MG/100 ML (D 873)

VISIBLE LEAD PRECIPITATE, MG/100 ML (D 873)

SULFUR, mg/Kg (ppm), (D 2622)

TETRAETHYLLLEAD CONTENT, ML/LITER (D 3237/ IP 362)

LEAD CONTENT G/LITER (CONV.)

LEAD, IODINE MONOCHLORIDE, ML/GAL (D 3341)

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

8.04/55.3

ASTM (D 86)

DISTILLATION	C
IBP	35.1
10% Evaporated	55.5
50% Evap.	105.3
90% Evap.	151.5
END POINT	197.5
RECOVERY	97.9 %
RESIDUE	0.9 %
LOSS	1.2 %

Tests results shown meet
D-4814 specifications for

Vapor Pressure/Distillation
Classes A-C.

Suspended Sediment mg/L
(D6219) 1.13

Manganese mg/L
(D3831) 0.9


CARL E. JOHNSON, PRESIDENT
PAL-0230 Issued 3-2-05 Revision 1



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

GASOLINE ANALYSIS REPORT

LABORATORY NO. 12907G-1
AWB NO. 001-7894-5440
CUSTOMER CIG Petroleum Inspectorate
TEST COMPLETED 2/19/16
SAMPLED FROM R05

ORIGIN Grand Cayman	FUEL TYPE Mogas
DATE SAMPLED 2/4/16	RECEIVED AT LAB 2/17/16
REFINER	REFINER'S DESIGNATION Premium Motor Gasoline

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)	54.16
SPECIFIC GRAVITY @ 60 F (CONV.)	0.7622
DENSITY, KG/M3 @15C	
APPEARANCE (VISUAL)	
BROMINE NO. (D 1159)	
COLOR VISUAL	
CORROSION, COPPER STRIP (D 130)	1a
DOCTOR TEST (IP 30)	
EXISTENT GUM, MG/100 ML (D 381/ IP 131)	15
WASHED GUM, MG/100 ML (D 381)	<1
FREEZE POINT, C (D 2386)	
VAPOR LIQUID RATIO = 20 @ C (D 4814)	
NON-VOLATILE MATTER, MG/100 ML (D1353)	
OCTANE NUMBER, MOTOR (D 2700)	86.9
LEAN RATING (CONVERSION) (D 2700)	
OCTANE NUMBER, RESEARCH (D 2699)	98.2
ANTI-KNOCK INDEX (R+ M/2)	92.6
OXIDATION STABILITY @ 100 C, MINUTES (D 525)	
PARTICULATE MATTER, MG/L, (D 5452)	
FILTER MEMBRANE COLOR RATING (D 5452)	
THRUPUT, LITERS	
PHOSPHOROUS CONTENT, MG/L (D 3231)	
POTENTIAL GUM, MG/100 ML (D 873)	
VISIBLE LEAD PRECIPITATE, MG/100 ML (D 873)	
SULFUR, mg/Kg (ppm), (D 2622)	
TETRAETHYLLLEAD CONTENT, ML/LITER (D 3237/ IP 362)	
LEAD CONTENT G/LITER (CONV.)	
LEAD, IODINE MONOCHLORIDE, ML/GAL (D 3341)	
VAPOR PRESSURE (LB REID)/kPa (D 5191)	8.38/57.7

ASTM (D 86)

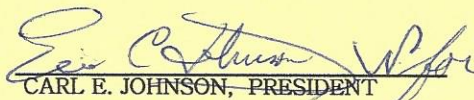
DISTILLATION	C
IBP	28.3
10% Evaporated	57.3
50% Evap.	115.3
90% Evap.	161.0
END POINT	210.6
RECOVERY	97.5 %
RESIDUE	1.0 %
LOSS	1.5 %

Tests results shown meet
D-4814 specifications for

Vapor Pressure/Distillation
Classes A-C

Suspended Sediment mg/L
(D6217) 0.43

Manganese mg/L
(D3831) 0.3


CARL E. JOHNSON, PRESIDENT
PAL-0230 Issued 3-2-05 Revision 1



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

GASOLINE ANALYSIS REPORT

LABORATORY NO.

12906G-1

AWB NO.

001-7894-5440

ORIGIN Grand Cayman	FUEL TYPE Mogas	CUSTOMER CIG Petroleum Inspectorate
DATE SAMPLED 2/4/16	RECEIVED AT LAB 2/17/16	TEST COMPLETED 2/19/16
REFINER	REFINER'S DESIGNATION Premium Motor Gasoline	SAMPLED FROM R06

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)

53.91

SPECIFIC GRAVITY @ 60 F (CONV.)

0.7632

DENSITY, KG/M3 @15C

APPEARANCE (VISUAL)

BROMINE NO. (D 1159)

COLOR VISUAL

CORROSION, COPPER STRIP (D 130)

1a

DOCTOR TEST (IP 30)

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

14

WASHED GUM, MG/100 ML (D 381)

<1

FREEZE POINT, C (D 2386)

VAPOR LIQUID RATIO = 20 @ C (D 4814)

NON-VOLATILE MATTER, MG/100 ML (D1353)

OCTANE NUMBER, MOTOR (D 2700)

87.2

LEAN RATING (CONVERSION) (D 2700)

OCTANE NUMBER, RESEARCH (D 2699)

98.5

ANTI-KNOCK INDEX (R+ M/2)

92.8

OXIDATION STABILITY @ 100 C, MINUTES (D 525)

PARTICULATE MATTER, MG/L (D 5452)

FILTER MEMBRANE COLOR RATING (D 5452)

THRUPUT, LITERS

PHOSPHOROUS CONTENT, MG/L (D 3231)

POTENTIAL GUM, MG/100 ML (D 873)

VISIBLE LEAD PRECIPITATE, MG/100 ML (D 873)

SULFUR, mg/Kg (ppm), (D 2622)

TETRAETHYLLLEAD CONTENT, ML/LITER (D 3237/ IP 362)

LEAD CONTENT G/LITER (CONV.)

LEAD, IODINE MONOCHLORIDE, ML/GAL (D 3341)

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

8.67/59.7

ASTM (D 86)

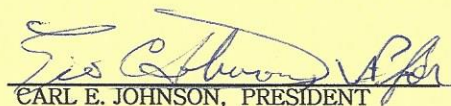
DISTILLATION	C
IBP	34.5
10% Evaporated	56.9
50% Evap.	116.3
90% Evap.	163.1
END POINT	211.9
RECOVERY	97.3 %
RESIDUE	1.1 %
LOSS	1.6 %

Tests results shown meet
D-4814 specifications for

Vapor Pressure/Distillation
Classes A-B

Suspended Sediment mg/L
(D6217) 1.08

Maganese mg/L
(D3831) 0.7


CARL E. JOHNSON, PRESIDENT

PAL-0230 Issued 3-2-05 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. 2912F
DATE SAMPLED 2/12/16	RECEIVED AT LAB 2/17/16	AWB NO. 001/7894-5440
REFINER	REFINER'S DESIGNATION Diesel	CUSTOMER CIG Petroleum Inspectorate
		TEST COMPLETED 2/24/16
		SAMPLED FROM R07

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

ASH, % WGT (D 482)

ASPHALTENES, % WGT. (IP 143)

CARBON RESIDUE CONRADSON, % WGT. (D 189)

CARBON RESIDUE RAMSBOTTOM (ON 10% B), WGT. (D524)

CETANE INDEX (D 976)

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)

GROSS CALORIFIC VALUE, BTU/LB (D240)

NET CALORIFIC VALUE (CALCULATED)

GRAVITY, API @ 60 F (D 4052)

SPECIFIC GRAVITY @ 60 F/ 60 F

DENSITY @ 15 C

POUNDS PER GALLON @ 60 F

COMPATABILITY SPOT RATING (D4740)

CCAI CALCULATION

POUR POINT F /C (D 97)

SEDIMENT BY EXTRACTION, % MASS (D 473)

SEDIMENT BY HOT FILTRATION, % MASS (D4870)

SULFUR, % WGT., XRAY (D 4294)

SULFUR, mg / Kg (ppm), XRAY, (D 2622)

VISCOSITY, KINEMATIC @ 50 C mm2/sec. (D 445)

VISCOSITY, KINEMATIC @ 40C mm2/sec. (D 445)

WATER BY DISTILLATION, % WGT. (D 95)

WATER AND SEDIMENT, % VOL. (D 1796)

WATER AND SEDIMENT, % VOL (D 2709)

NITROGEN, % WGT.

HYDROGEN, %, WGT.

54.1

39.52

0.8274

0.8270

6.87

7

1.996

<0.005

% RECOVERY	C
IBP	166.0
10	200.4
20	219.0
30	234.4
40	248.6
50	261.4
60	273.2
70	284.9
80	298.7
90	316.5
95	331.4
END POINT	340.5
RECOVERY	98.1 %
RESIDUE	1.2 %
LOSS	0.7 %

ELEMENTS BY ATOMIC ABSORPTION, PPM

ALUMINUM (Al)	
CALCIUM (Ca)	
CHROMIUM (Cr)	
COPPER (Cu)	
IRON (Fe)	
LEAD (Pb)	
MAGNESIUM (Mg)	
MANGANESE (Mn)	
NICKEL (Ni)	
POTASSIUM (K)	
SILICON (Si)	
SODIUM (Na)	
Sodium+ Potassium	
VANADIUM (V)	
ZINC (Zn)	
LITHIUM (Li)	
PHOSPHORUS (P)	

ND = NONE DETECTED

(by ICP method)

CARL E. JOHNSON, PRESIDENT

PAL-0206, Issued 10-17-14, Revision 1