



PANAIR LABORATORY, INC.

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

LABORATORY NO. 3194F-1
AWB NO. 378-05132982
CUSTOMER CIG Petroleum
TEST COMPLETED 11/23/16
SAMPLED FROM R14

FUEL OIL ANALYSIS

ORIGIN Grand Cayman	FUEL TYPE Diesel	CUSTOMER CIG Petroleum
DATE SAMPLED 11-9-16	RECEIVED AT LAB 11/18/16	TEST COMPLETED 11/23/16
REFINER --	REFINER'S DESIGNATION ULS Diesel #2	SAMPLED FROM R14

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

DISTILLATION (D 86)

% RECOVERY	C
IBP	173.7
10	202.9
20	216.7
30	230.6
40	244.5
50	258.1
60	272.5
70	286.6
80	302.0
90	322.0
95	337.9
END POINT	351.0
RECOVERY	98.5 %
RESIDUE	1.2 %
LOSS	0.3 %

APPEARANCE, VISUAL	Clear
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)	51.0
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)	38.51
SPECIFIC GRAVITY @ 60 F/ 60 F	0.8323
DENSITY @ 15 C	0.8319
POUNDS PER GALLON @ 60 F	6.91
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)	7
VISCOSITY, KINEMATIC @ 50 C mm2/sec. (D 445)	_____
VISCOSITY, KINEMATIC @ 40C mm2/sec. (D 445)	2.365
WATER BY DISTILLATION, % WGT. (D 95)	_____
WATER AND SEDIMENT, % VOL. (D 1796)	_____
WATER AND SEDIMENT, % VOL (D 2709)	0.005
NITROGEN, % WGT.	_____
HYDROGEN, % WGT.	_____

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)	_____ (by ICP method)

ND = NONE DETECTED

CARL E. JOHNSON, PRESIDENT



PANAIR LABORATORY, INC.

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

GASOLINE ANALYSIS REPORT

LABORATORY NO. 13000G-1
AWB NO. 378-05132982
CUSTOMER CIG Petroleum Inspectors
TEST COMPLETED 11-23-16
SAMPLED FROM R14

ORIGIN Grand Cayman	FUEL TYPE Mogas	CUSTOMER CIG Petroleum Inspectors
DATE SAMPLED 11-9-16	RECEIVED AT LAB 11-18-16	TEST COMPLETED 11-23-16
REFINER -----	REFINER'S DESIGNATION Mogas	SAMPLED FROM R14

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

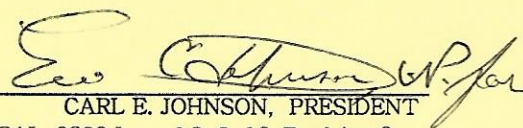
API GRAVITY @ 60 (D4052)	<u>56.05</u>
SPECIFIC GRAVITY @ 60 F (CONV.)	<u>0.7545</u>
APPEARANCE (D4176)	_____
OLEFINS, % VOL. (D 1319)	_____
AROMATICS, % VOL. (D1319)	_____
COLOR VISUAL	_____
CORROSION, COPPER STRIP (D 130)	<u>1a</u>
DOCTOR TEST (IP 30)	_____
EXISTENT GUM, MG/100 ML (D 381/ IP 131)	<u>4</u>
WASHED GUM, MG/100 ML (D 381)	<u>< 1</u>
FREEZE POINT, C (D 2386)	_____
VAPOR LOCK INDEX (D323)	_____
DRIVEABILITY (D4814)	_____
OCTANE NUMBER, MOTOR (D 2700)	<u>88.4</u>
OCTANE SENSITIVITY (RON - MON)	_____
OCTANE NUMBER, RESEARCH (D 2699)	<u>98.8</u>
ANTI-KNOCK INDEX (R+ M/2)	<u>93.6</u>
OXIDATION STABILITY @ 100 C, MINUTES (D 525)	_____
PARTICULATE MATTER, MG/L, (D 5452)	<u>0.92</u>
FILTER MEMBRANE COLOR RATING (D 5452)	<u>B-2</u>
THRUPUT, LITERS	<u>0.977</u>
PHOSPHOROUS CONTENT, MG/L (D 3231)	_____
POTENTIAL GUM, MG/100 ML (D 873)	_____
MANGANESE, mg/L (D 3831)	<u>< 0.3</u>
SULFUR, mg / kg (ppm) (D 2622)	_____
TETRAETHYLLEAD CONTENT, g/U.S. gal. (D 3237/ IP 362)	_____
LEAD CONTENT g/Liter (D3237)	_____
SILVER CORROSION (D4814 annex)	_____
VAPOR PRESSURE (LB REID/kPa) (D 5191)	<u>* 9.47 / 65.2</u>
BENZENE, % VOL. (D3606)	_____

ASTM (D 86)

DISTILLATION	C
IBP	31.8
10% Evaporated	48.4
50% Evap.	118.2
90% Evap.	166.8
END POINT	204.9
RECOVERY	<u>98.6</u> %
RESIDUE	<u>1.0</u> %
LOSS	<u>0.4</u> %

Product complies with ASTMD4814 for Mogas test results shown if box is checked for Distillation Classes A and AA.

*Vapor Pressure slightly high for corresponding Distillation classes, however this may enhance easier starting in cooler weather.


 CARL E. JOHNSON, PRESIDENT
 PAL-0238 Issued 3-3-16, Revision 2