

OIL ANALYSIS REPORT

Sample Rating Trend

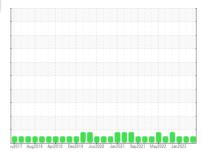
NORMAL



G.LOPES CONSTRUCTION INC./On-Road
Machine Id
306
Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104704	PCA0083225	PCA0090663
Sample Date		Client Info		30 Aug 2023	25 Apr 2023	25 Jan 2023
Machine Age	mls	Client Info		380000	364000	356000
Oil Age	mls	Client Info		317000	309000	309000
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method	7 0.0	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	14	22	17
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	<1
Lead	ppm	ASTM D5185m	>40	2	2	2
Copper	ppm	ASTM D5185m	>330	5	6	4
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m	710	<1	0	0
Cadmium		ASTM D5185m		0	0	0
				()	()	
	ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	0	current	history1	history2
ADDITIVES Boron Barium		method ASTM D5185m ASTM D5185m	0	current 7	history1 <1 0	history2 4 0
ADDITIVES Boron Barium Molybdenum	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 7 0 57	history1 <1 0 58	history2 4 0 59
ADDITIVES Boron Barium Molybdenum Manganese	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 7 0 57 <1	history1 <1 0 58 <1	history2 4 0 59 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	current 7 0 57 <1 931	history1 <1 0 58 <1 863	history2 4 0 59 <1 1005
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070	current 7 0 57 <1 931 1217	history1 <1 0 58 <1 863 1012	history2 4 0 59 <1 1005 1178
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150	current 7 0 57 <1 931 1217 988	history1 <1 0 58 <1 863 1012 948	history2 4 0 59 <1 1005 1178 1008
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150	current 7 0 57 <1 931 1217 988 1238	history1 <1 0 58 <1 863 1012 948 1168	history2 4 0 59 <1 1005 1178 1008 1322
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 7 0 57 <1 931 1217 988 1238 3807	history1 <1 0 58 <1 863 1012 948 1168 3080	history2 4 0 59 <1 1005 1178 1008 1322 3644
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 7 0 57 <1 931 1217 988 1238 3807 current	history1 <1 0 58 <1 863 1012 948 1168 3080 history1	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 7 0 57 <1 931 1217 988 1238 3807 current	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16	history2 4 0 59 <1 1005 1178 1008 1322 3644
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	current 7 0 57 <1 931 1217 988 1238 3807 current 4	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	current 7 0 57 <1 931 1217 988 1238 3807 current	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	current 7 0 57 <1 931 1217 988 1238 3807 current 4	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1 2 history1	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	current 7 0 57 <1 931 1217 988 1238 3807 current 4 2 <1	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1 2	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	current 7 0 57 <1 931 1217 988 1238 3807 current 4 2 <1 current 2.3 8.0	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1 2 history1	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1 1 history2 2.8 8.0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	current 7 0 57 <1 931 1217 988 1238 3807 current 4 2 <1 current 2.3	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1 2 history1 3.9	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1 1 history2 2.8
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 limit/base	current 7 0 57 <1 931 1217 988 1238 3807 current 4 2 <1 current 2.3 8.0	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1 2 history1 3.9 10.2	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1 1 history2 2.8 8.0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20 >30	current 7 0 57 <1 931 1217 988 1238 3807 current 4 2 <1 current 2.3 8.0 23.2	history1 <1 0 58 <1 863 1012 948 1168 3080 history1 16 <1 2 history1 3.9 10.2 26.2	history2 4 0 59 <1 1005 1178 1008 1322 3644 history2 3 <1 1 history2 2.8 8.0 22.6



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No.

Lab Number

Unique Number Test Package

: 05942415 : 10633027 : MOB 2

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: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 05 Sep 2023 : PCA0104704 : 06 Sep 2023 Diagnosed : Wes Davis

Diagnostician

0.0

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

G LOPES CONSTRUCTION

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