

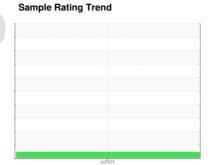
# **OIL ANALYSIS REPORT**



MACK 10073
Component

Component
Natural Gas Engine

PETRO CANADA DURON GEO LD 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

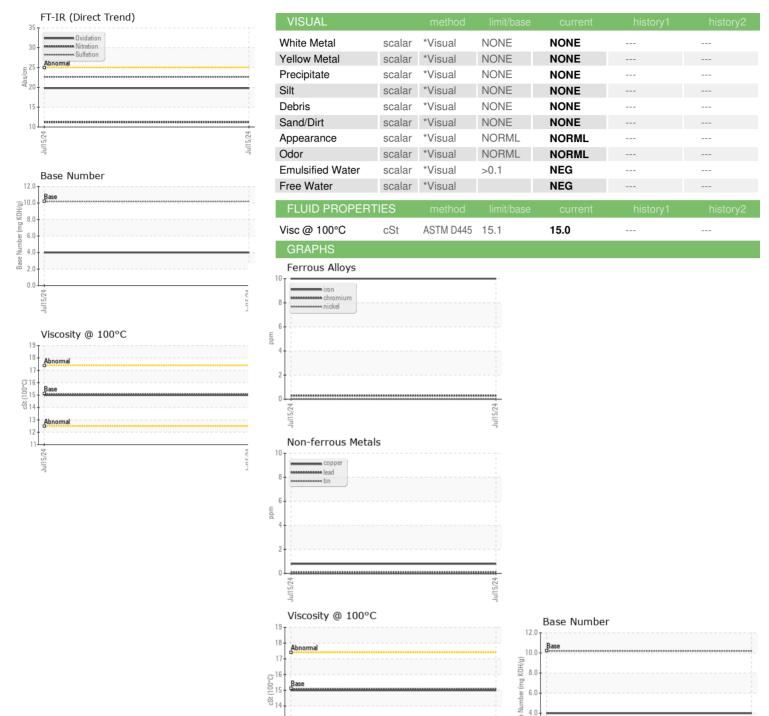
## **Fluid Condition**

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0007383		
Sample Date		Client Info		15 Jul 2024		
Machine Age	hrs	Client Info		8928		
Oil Age	hrs	Client Info		435		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>50	10		
Chromium	ppm	ASTM D5185m	>5	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m	>5	0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>25	2		
_ead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>150	<1		
Γin	ppm	ASTM D5185m	>4	<1		
/anadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	8		
Barium	ppm	ASTM D5185m	5	0		
Molybdenum	ppm	ASTM D5185m	50	53		
Manganese	ppm	ASTM D5185m	0	0		
Magnesium						
	ppm	ASTM D5185m	560	562		
Calcium	ppm	ASTM D5185m ASTM D5185m	560 1510	562 1653		
Calcium Phosphorus						
	ppm	ASTM D5185m	1510	1653		
Phosphorus Zinc	ppm	ASTM D5185m ASTM D5185m	1510 780	1653 689		
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1510 780 870	1653 689 973		
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1510 780 870 2040 limit/base	1653 689 973 2730		
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1510 780 870 2040 limit/base	1653 689 973 2730 current		
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1510 780 870 2040 limit/base	1653 689 973 2730 current	   history1	  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1510 780 870 2040 limit/base >25	1653 689 973 2730 current 9	   history1	  history2 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	1510 780 870 2040 limit/base >25 >20	1653 689 973 2730 current 9 13	  history1 	history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	1510 780 870 2040 limit/base >25 >20 limit/base	1653 689 973 2730 current 9 13 11	  history1   history1	history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method  *ASTM D5185m	1510 780 870 2040 limit/base >25 >20 limit/base	1653 689 973 2730 current 9 13 11	  history1   history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method *ASTM D7844 *ASTM D7624	1510 780 870 2040 limit/base >25 >20 limit/base	1653 689 973 2730 current 9 13 11 current 0 11.2	history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	1510 780 870 2040 limit/base >25 >20 limit/base	1653 689 973 2730 current 9 13 11 current 0 11.2 22.6	history1 history1 history1	history2 history2 history2



## **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number : 06239824 Unique Number : 11128658

: SBP0007383

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 17 Jul 2024

**Tested** : 18 Jul 2024 Diagnosed : 18 Jul 2024 - Wes Davis

0.0

59902 N 16TH ST OMAHA, NE US 68110 Contact: TROY BEAN

Test Package : FLEET Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

troy.bean@fccenvironmental.com T:

FCC ENVIRONMENTAL SERVICES NEBRASKA LLC

\* - 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)

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