

PROBLEM SUMMARY

Sample Rating Trend





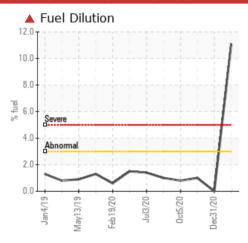


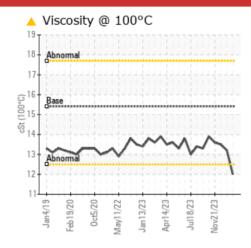
Machine Id **424045-402329**

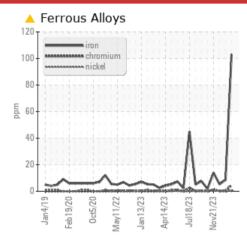
Component **Diesel Engine**

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

COMPONENT CONDITION SUMMARY







RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE	NORMAL	NORMAL		
Iron	ppm	ASTM D5185m	>120	103	8	5		
Fuel	%	ASTM D3524	>3.0	▲ 11.1	<1.0	<1.0		
Visc @ 100°C	cSt	ASTM D445	15.4	12.0	13.2	13.5		

Customer Id: GFL836 Sample No.: GFL0109785 Lab Number: 06102819 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Fluid			?	We recommend that you drain the oil and perform a filter service on this component if not already done.			
Change Filter			?	We recommend that you drain the oil and perform a filter service on this component if not already done.			
Resample			?	We recommend an early resample to monitor this condition.			
Check Fuel/injector System			?	We advise that you check the fuel injection system.			

HISTORICAL DIAGNOSIS

20 Jan 2024 Diag: Wes Davis





Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



02 Jan 2024 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

21 Nov 2023 Diag: Wes Davis

NORMAL



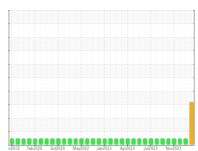
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend









424045-402329 Component

Diesel Engine

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

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear

Cylinder, crank, or cam shaft wear is indicated.

▲ Contamination

There is a high amount of fuel present in the oil.

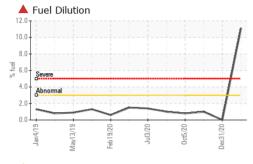
▲ Fluid Condition

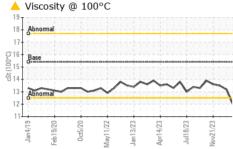
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

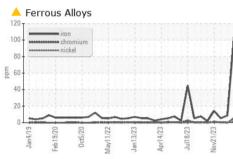
SAMPLE INFORMATION Imit lofo Current history1 history2 Sample Number Client Info 26 Feb 2024 20 Jan 2024 20 Ja					Jan2023 Apr2023 Jul2023 I		
Sample Date Client Info 26 Feb 2024 20 Jan 2024 02 Jan 2024	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
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Nitration Abs/cm *ASTM D7624 >20 16.5 8.0 7.1 Sulfation Abs/.1mm *ASTM D7415 >30 31.9 19.3 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 36.0 16.4 15.4	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0	5 0 59 1 891 1037 932 1174 2671 current 12 4 3	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0
Sulfation Abs/.1mm *ASTM D7415 >30 31.9 19.3 18.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 36.0 16.4 15.4	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m ASTM D3524	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0	5 0 59 1 891 1037 932 1174 2671 current 12 4 3 ▲ 11.1	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 36.0 16.4 15.4	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 >3.0	5 0 59 1 891 1037 932 1174 2671 current 12 4 3	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0 history1	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0
Oxidation	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	0 0 60 0 1010 1150 1270 2060 limit/base >25 >20 >3.0 limit/base	5 0 59 1 891 1037 932 1174 2671 current 12 4 3 11.1 current 1.7 16.5	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0 history1 0.2 8.0	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0 history2 0.2 7.1
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4 >20 >30	5 0 59 1 891 1037 932 1174 2671 current 12 4 3 ▲ 11.1 current 1.7 16.5 31.9	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0 history1 0.2 8.0 19.3	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0 history2 0.2 7.1 18.6
Base Number (BN) mg KOH/g ASTM D2896 9.8 4.7 7.2 7.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4 >20 >30	5 0 59 1 891 1037 932 1174 2671 current 12 4 3 ▲ 11.1 current 1.7 16.5 31.9	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0 history1 0.2 8.0 19.3	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0 history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4 >20 >30 limit/base	5 0 59 1 891 1037 932 1174 2671 current 12 4 3 11.1 current 1.7 16.5 31.9 current	2 0 52 <1 877 1049 881 1088 2405 history1 4 6 2 <1.0 history1 0.2 8.0 19.3	3 0 62 <1 936 1110 1024 1235 2937 history2 4 6 0 <1.0 history2 0.2 7.1 18.6 history2

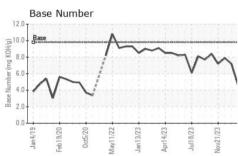


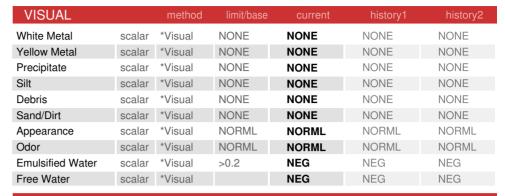
OIL ANALYSIS REPORT





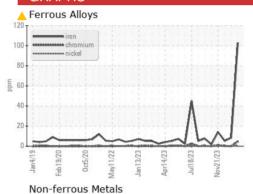


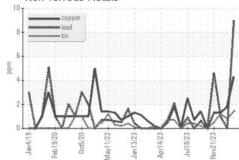


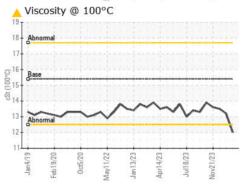


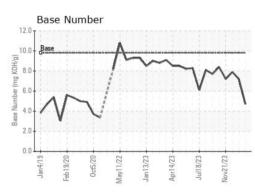
FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.0	13.2	13.5

GRAPHS













Laboratory Sample No. Lab Number : 06102819 Unique Number: 10901049

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: GFL0109785

Received **Tested**

: 28 Feb 2024 Diagnosed

: 04 Mar 2024 : 04 Mar 2024 - Jonathan Hester

GFL Environmental - 836 - Kansas City Hauling 7801 East Truman Road

Kansas City, MO US 64126 Contact: Loyce Stewart

loyce.stewart@gflenv.com T:

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)

Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel)

Report Id: GFL836 [WUSCAR] 06102819 (Generated: 03/04/2024 11:58:35) Rev: 1

Contact/Location: GFL823,834,836,837,840 - Loyce Stewart - GFL836

F: