

Area (34718UA) Machine Id 828100

Component Diesel Engine Fluid 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 from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC) TEST	RESULT	S			
Sample Status				SEVERE	SEVERE	ABNORMAL
Fuel	%	ASTM D3524	>5	e 25.5	5 .4	6 .6

Customer Id: GFL652 Sample No.: GFL0098180 Lab Number: 06065393 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

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 from the component if this has not already been 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



06 Jan 2024 Diag: Doug Bogart

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. 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. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.Cylinder, crank, or cam shaft wear is indicated. There is an abnormal amount of solids and carbon present in the oil. There is a moderate amount of fuel present in the oil. The oil is no longer serviceable due to the presence of contaminants.



view report

12 Dec 2023 Diag: Doug Bogart

We advise that you check the fuel injection system. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of fuel present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

04 Oct 2023 Diag: Don Baldridge



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.Cylinder, crank, or cam shaft wear is indicated. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.





OIL ANALYSIS REPORT

Area (34718UA) Machine Id 828100

Component Diesel Engine Fluid

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

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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 INFORM		method	limit/base	current	history1	nistory2
Sample Number		Client Info		GFL0098180	GFL0108328	GFL0098187
Sample Date		Client Info		16 Jan 2024	06 Jan 2024	12 Dec 2023
Machine Age	hrs	Client Info		12059	12030	11870
Oil Age	hrs	Client Info		12059	12030	11870
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL
oumpie otatao					011111	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
	0	mathad	limit/booo	ourropt	biotorut	biotory ()
	5	methoa	iimii/base	current	nistory i	nistory2
Iron	ppm	ASTM D5185m	>100	31	1 32	72
Chromium	ppm	ASTM D5185m	>20	1	8	4
Nickel	ppm	ASTM D5185m	>4	<1	4	2
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	16	10
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	1	4	2
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
		method	limit/base	current	historv1	history2
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	Method ASTM D5185m	limit/base	current 9	history1 10	history2 12
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0	current 9 0	history1 10 0	history2 12 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60	current 9 0 58	history1 10 0 58	history2 12 0 52
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0	current 9 0 58 <1	history1 10 0 58 2	history2 12 0 52 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010	current 9 0 58 <1 982	history1 10 0 58 2 863	history2 12 0 52 <1 910
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070	ourrent 9 0 58 <1 982 1103	history1 10 0 58 2 863 991	history2 12 0 52 <1 910 1086
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150	ourrent 9 0 58 <1 982 1103 1090	history1 10 0 58 2 863 991 988	history2 12 0 52 <1 910 1086 1008
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270	ourrent 9 0 58 <1 982 1103 1090 1311	history1 10 0 58 2 863 991 988 1139	history2 12 0 52 <1 910 1086 1008 1131
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060	current 9 0 58 <1 982 1103 1090 1311 3381	history1 10 0 58 2 863 991 988 1139 2634	history2 12 0 52 <1 910 1086 1008 1131 2910
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current	history1 10 0 58 2 863 991 988 1139 2634 history1	history2 12 0 52 <1 910 1086 1008 1131 2910 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 Limit/base >25	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6	history1 10 0 58 2 863 991 988 1139 2634 history1 9	history2 12 0 52 <1 910 1086 1008 1131 2910 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2	history1 10 0 58 2 863 991 988 1139 2634 history1 9 8	history2 12 0 52 <1 910 1086 1008 1131 2910 history2 5 3
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	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4	history1 10 0 58 2 863 991 988 1139 2634 history1 9 8 12	history2 12 0 52 <1 910 1086 1008 1131 2910 history2 5 3 10
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4	history1 10 0 58 2 863 991 988 1139 2634 history1 9 8 12 ▲ 5.4	history2 12 0 52 <1 910 1086 1008 1131 2910 history2 5 3 10 ▲ 6.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5	history1 10 0 58 2 863 991 988 1139 2634 history1 9 8 12 ▲ 5.4	history2 12 0 52 <1 910 1086 1008 1131 2910 history2 5 3 10 ▲ 6.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 2060 225 >20 >20 >5 limit/base	o 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5 current	history1 10 0 58 2 863 991 988 1139 2634 history1 9 8 12 ▲ 5.4	history2 12 0 52 <1 910 1086 1008 1131 2910 bistory2 5 3 10 ▲ 6.6 bistory2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	method ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >20 >5 limit/base >3	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5 current 1.5	history1 10 0 58 2 863 991 988 1139 2634 9 8 12 5.4	history2 12 0 52 <1 910 1086 1008 1131 2910 bistory2 5 3 10 ▲ 6.6 bistory2 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5 current 1.5 6.8	history1 10 0 58 2 863 991 988 1139 2634 9 8 12 5.4 history1 6 21.1	history2 12 0 52 <1 910 1086 1008 1131 2910 bistory2 5 3 10 ▲ 6.6 bistory2 3 11.0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7844	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20 >30	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5 current 1.5 6.8 20.2	history1 10 0 58 2 863 991 988 1139 2634 9 8 12 5.4 history1 6 21.1 37.6	history2 12 0 52 <1 910 1086 1008 1131 2910 bistory2 5 3 10 ▲ 6.6 bistory2 3 11.0 23.7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAC	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >20 >5 limit/base >3 >20 >30	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5 current 1.5 6.8 20.2	history1 10 0 58 2 863 991 988 1139 2634 history1 9 8 12 ▲ 5.4 history1 ▲ 5.4 history1 ▲ 6 21.1 37.6 history1	history2 12 0 52 <1 910 1086 1008 1131 2910 bistory2 5 3 10 ▲ 6.6 bistory2 3 11.0 23.7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation CVidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7415 method *ASTM D7414	limit/base 0 0 60 0 1010 1070 1150 1270 2060 limit/base >20 >5 limit/base >3 >20 >30 limit/base	ourrent 9 0 58 <1 982 1103 1090 1311 3381 current 6 2 4 25.5 current 1.5 6.8 20.2 current	history1 10 0 58 2 863 991 988 1139 2634 9 8 12 5.4 history1 6 21.1 37.6 32.0	history2 12 0 52 <1 910 1086 1008 1131 2910 bistory2 5 3 10 ▲ 6.6 bistory2 3 11.0 23.7 bistory2 15.8



OIL ANALYSIS REPORT

VISUAL





Base Number (mg)

0.0

ul28/

Jan16/24.

: 19 Jan 2024

: 23 Jan 2024

Jan6/24

Dec12/23





 Unique Number
 : 10836775
 Diagnostician
 : Wes Davis

 Certificate L2367
 Test Package
 : FLEET (Additional Tests: PercentFuel)

 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)

Jul31/23

0ct4/23

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

Recieved

Diagnosed

Feb6/23

: GFL0098180

: 06065393

cSt (100°C)

12

10

Laboratory

Sample No.

Lab Number

ul28/22

Report Id: GFL652 [WUSCAR] 06065393 (Generated: 01/23/2024 11:29:27) Rev: 1

Submitted By: TECHNICIAN ACCOUNT

Dec12/23

GFL Environmental - 652 - Fredericksburg Hauling

Jul31/23

0ct4/23

Feb 6/23

US 22408

Jan 16/24

T:

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an 6/24

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