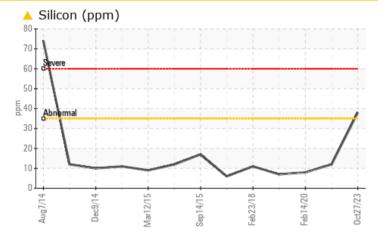


Machine Id 2571

Component Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (40 GAL)

### COMPONENT CONDITION SUMMARY



### RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status				ABNORMAL	NORMAL	NORMAL	
Silicon	ppm	ASTM D5185m	>35	<mark>  3</mark> 8	12	8	

Customer Id: GFL074 Sample No.: GFL0097205 Lab Number: 05994083 Test Package: FLEET



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

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

### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

### **HISTORICAL DIAGNOSIS**

### 08 Aug 2023 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.

### 14 Feb 2020 Diag: Doug Bogart



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.

11 Apr 2019 Diag: Wes Davis

#### NORMAL



Resample at the next service interval to monitor. No other corrective action is recommended at this time.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



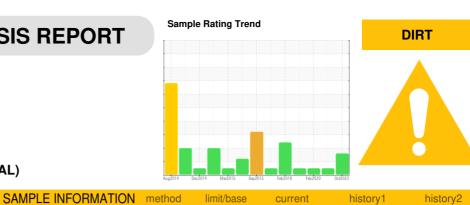


view report

### Report Id: GFL074 [WUSCAR] 05994083 (Generated: 11/01/2023 12:20:22) Rev: 1



## **OIL ANALYSIS REPORT**



# Machine Id 2571

Component

**Diesel Engine** Fluid

## PETRO CANADA DURON SHP 15W40 (40 GAL)

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal.

### Fluid Condition

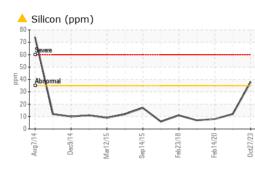
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

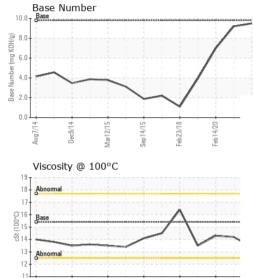
SAMIFLE INFURI		methou	IIIIII/Dase	current	Thistory I	TIStory2
Sample Number		Client Info		GFL0097205	GFL0083040	GFL0003947
Sample Date		Client Info		27 Oct 2023	08 Aug 2023	14 Feb 2020
Machine Age	hrs	Client Info		19170	0	12849
Oil Age	hrs	Client Info		0	0	595
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINAT		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0 NEG	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	8	3	18
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	6
Lead	ppm	ASTM D5185m	>150	0	0	16
Copper	ppm	ASTM D5185m	>90	3	<1	2
Tin	ppm	ASTM D5185m	>5	0	0	0
Antimony	ppm	ASTM D5185m				3
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
				U	0	Ū
ADDITIVES		method	limit/base	current	history1	history2
	ppm		limit/base			
ADDITIVES	ppm ppm	method ASTM D5185m		current	history1	history2
ADDITIVES Boron		method ASTM D5185m	0	current 2	history1 6	history2 97
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0	current 2 0	history1 6 0	history2 97 0
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 2 0 56	history1 6 0 59	history2 97 0 119
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 2 0 56 0	history1 6 0 59 0	history2 97 0 119 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	2 0 56 0 442	history1 6 0 59 0 707	history2 97 0 119 <1 707
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	0 0 60 0 1010 1070	current           2           0           56           0           442           1641	history1 6 0 59 0 707 1178	history2 97 0 119 <1 707 1626
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	0 0 60 0 1010 1070 1150	current           2           0           56           0           442           1641           1149	history1 6 0 59 0 707 1178 961	history2 97 0 119 <1 707 1626 612
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	0 0 60 0 1010 1070 1150 1270	current           2           0           56           0           442           1641           1149           1200	history1 6 0 59 0 707 1178 961 1124	history2 97 0 119 <1 707 1626 612 837
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	0 0 60 0 1010 1070 1150 1270	current           2           0           56           0           442           1641           1149           1200           3301	history1 6 0 59 0 707 1178 961 1124 3051	history2 97 0 119 <1 707 1626 612 837 1953
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	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	0 0 60 0 1010 1070 1150 1270 2060	Current 2 0 56 0 442 1641 1149 1200 3301 	history1 6 0 59 0 707 1178 961 1124 3051 	history2 97 0 119 <1 707 1626 612 837 1953 
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	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	0 0 60 1010 1070 1150 1270 2060	current           2           0           56           0           442           1641           1149           1200           3301              current	history1 6 0 59 0 707 1178 961 1124 3051  history1	history2         97         0         119         <1         707         1626         612         837         1953            history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	0 0 60 1010 1070 1150 1270 2060	current         2         0         56         0         442         1641         1149         1200         3301            current         38	history1           6           0           59           0           707           1178           961           1124           3051              history1           12	history2           97           0           119           <1           707           1626           612           837           1953              history2           8
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b>	method           ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 imit/base >35 >20	current         2         0         56         0         442         1641         1149         1200         3301            current         38         2	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1	history2           97           0           119           <1           707           1626           612           837           1953              history2           8           5           0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	method           ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 iimit/base >35	Current         2         0         56         0         442         1641         1149         1200         3301            current         38         2         4         current	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1         <1         history1	history2         97         0         119         <1         707         1626         612         837         1953            history2         8         5         0         history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	method           ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 iimit/base >35 >20 iimit/base >7.5	2         0         56         0         442         1641         1149         1200         3301            current         38         2         4         current         0.2	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1         <1         0.1	history2         97         0         119         <1         707         1626         612         837         1953            history2         8         5         0         history2         0.5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	method           ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 iimit/base >35	Current         2         0         56         0         442         1641         1149         1200         3301            current         38         2         4         current	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1         <1         history1	history2         97         0         119         <1         707         1626         612         837         1953            history2         8         5         0         history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 Iimit/base >35 >20 Iimit/base >7.5 >20 >30	Current         2         0         56         0         442         1641         1149         1200         3301            current         38         2         4         current         0.2         5.0         18.1	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1         <1         0.1         4.0         16.5	history2         97         0         119         <1         707         1626         612         837         1953            history2         8         5         0         history2         0.5         13.1         28.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D7844           *ASTM D7844           *ASTM D7415           method	0 0 0 1010 1070 1150 1270 2060 imit/base >35 20 imit/base >7.5 >20 >30 imit/base	Current         2         0         56         0         442         1641         1149         1200         3301            current         ▲         38         2         4         current         0.2         5.0         18.1         current	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1         12         <1         history1         0.1         4.0         16.5         history1	history2           97           0           119           <1           707           1626           612           837           1953              history2           8           5           0           history2           0           13.1           28.1           history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 Iimit/base >35 >20 Iimit/base >7.5 >20 >30	Current         2         0         56         0         442         1641         1149         1200         3301            current         38         2         4         current         0.2         5.0         18.1	history1         6         0         59         0         707         1178         961         1124         3051            history1         12         <1         <1         0.1         4.0         16.5	history2         97         0         119         <1         707         1626         612         837         1953            history2         8         5         0         history2         0.5         13.1         28.1

Submitted By: JOSH MALONEY



## **OIL ANALYSIS REPORT**





Sep14/15 -

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Aug7/14 .

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Dec9/14

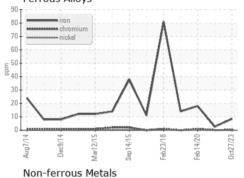
Mar12/15

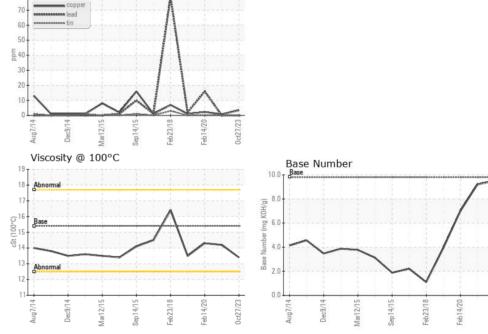
Feb14/20 -

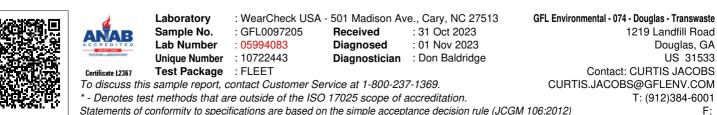
8

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	14.2	14.3
GRAPHS						

Ferrous Alloys







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

Submitted By: JOSH MALONEY

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