

# **PROBLEM SUMMARY**

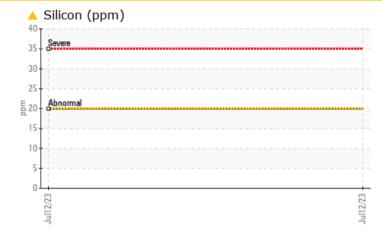
PETRO CANADA DURON SHP 15W40 (--- GAL)

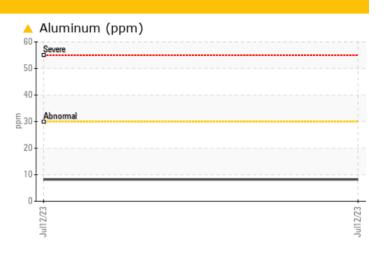
Sample Rating Trend
DIRT

### COMPONENT CONDITION SUMMARY

Machine Id 728081 Component Diesel Engine

Fluid





#### RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

PROBLEMAI	IC IES	I RESULI	S		
Sample Status				ABNORMAL	 
Aluminum	ppm	ASTM D5185m	>30	<u> </u>	 
Silicon	ppm	ASTM D5185m	>20	<u> </u>	 

Customer Id: GFL958 Sample No.: GFL0085363 Lab Number: 05902785 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

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

RECOMMENDE	D ACTIONS			
Action	Status	Date	Done By	Description
Check Dirt Access			?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

### HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

Sample Rating Trend

DIRT



Component Diesel Engine

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

N SHF 15040 (-	- GAL)			Jul2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0085363		
Sample Date		Client Info		12 Jul 2023		
Machine Age	hrs	Client Info		12331		
Oil Age	hrs	Client Info		606		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	58		
Chromium	ppm	ASTM D5185m	>5	2		
Nickel	ppm	ASTM D5185m	>2	1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>30	<mark> </mark> 8		
Lead	ppm	ASTM D5185m	>30	0		
Copper	ppm	ASTM D5185m	>150	3		
Tin	ppm	ASTM D5185m	>5	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	8		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	60	55		
Manganese	ppm	ASTM D5185m	0	<1		
Magnesium	ppm	ASTM D5185m	1010	900		
Calcium	ppm	ASTM D5185m	1070	1165		
Phosphorus	ppm	ASTM D5185m	1150	980		
Zinc	ppm	ASTM D5185m	1270	1238		
Sulfur	ppm	ASTM D5185m	2060	2961		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Ciliaan						
Silicon	ppm	ASTM D5185m	>20	<mark>/</mark> 20		
Sodium	ppm ppm	ASTM D5185m		7		
			>20 >20			
Sodium	ppm	ASTM D5185m		7		
Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	>20	7 5		
Sodium Potassium INFRA-RED	ppm ppm	ASTM D5185m ASTM D5185m method	>20 limit/base	7 5 current	  history1	history2
Sodium Potassium INFRA-RED Soot %	ppm ppm %	ASTM D5185m ASTM D5185m method *ASTM D7844	>20 limit/base >3	7 5 current 1	  history1 	 history2 
Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	>20 limit/base >3 >20	7 5 current 1 13.7	 history1 	 history2  
Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	>20 limit/base >3 >20 >30	7 5 current 1 13.7 27.5	 history1  	 history2 

### DIAGNOSIS

#### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

#### 📥 Wear

All component wear rates are normal.

#### Contamination

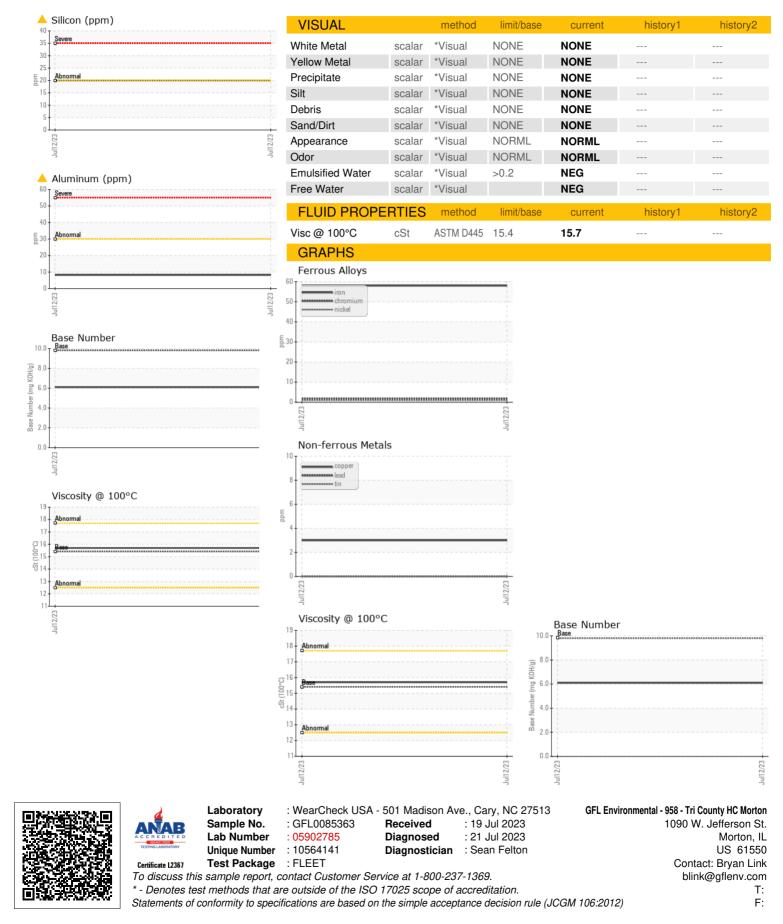
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

#### Fluid Condition

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.



# **OIL ANALYSIS REPORT**



Submitted By: Also GFL958,958A, 958B - Bryan Link