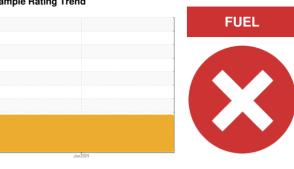




# **PROBLEM SUMMARY**



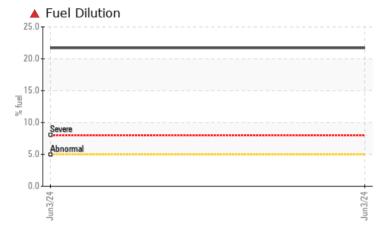
Machine Id

## 821

Component
Diesel Engine

#### Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

# COMPONENT CONDITION SUMMARY



## ▲ Viscosity @ 100°C

15		
14.	Abnormal	
13.		
-12	Base	 
2 11-		-
3 10.		
9.	Abnormal	 -
8.		_
7		1
/-	4.716	3/24
		Jun3/2

### RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE				
Fuel	%	ASTM D3524	>5	<b>4</b> 21.7				
Visc @ 100°C	cSt	ASTM D445	12.00	▲ 8.3				

Customer Id: GASMAN Sample No.: PCA0124612 Lab Number: 06226893 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		
Resample			?	We recommend an early resample to monitor this condition.		
Information Required			?	Please specify the component make and model with your next sample.		
Check Fuel/injector System			?	We advise that you check the fuel injection system.		

HISTORICAL DIAGNOSIS



# **OIL ANALYSIS REPORT**



Machine Id 821 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

### DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

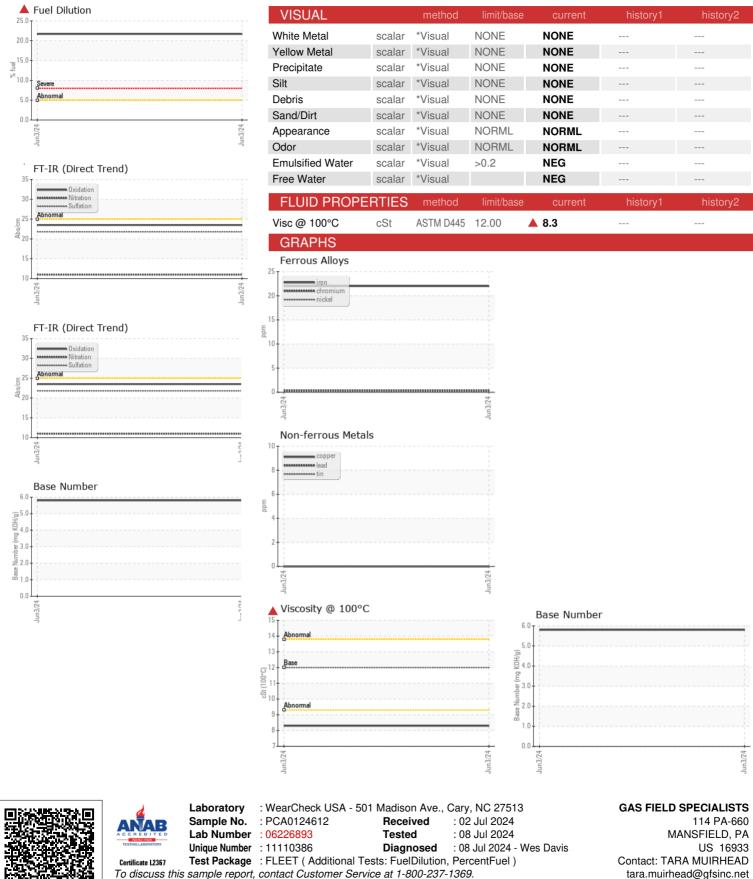
### Contamination

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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0124612		
Sample Date		Client Info		03 Jun 2024		
Machine Age	mls	Client Info		232010		
Oil Age	mls	Client Info		5000		
Oil Changed		Client Info		Changed		
Sample Status				SEVERE		
CONTAMINATI	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS	S .	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	22		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	2		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	0		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	0.00.000	ASTM D5185m	2	5		
DOIOII	ppm	ASTIVI DOTODITI	<u>_</u>	5		
Barium	ppm	ASTM D5185m	0	0		
				-		
Barium	ppm	ASTM D5185m	0	0		
Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 46		
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	0 46 <1		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	0 46 <1 778	 	 
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180	0 46 <1 778 864		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995	0 46 <1 778 864 861	  	
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180	0 46 <1 778 864 861 1000	   	   
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600	0 46 <1 778 864 861 1000 2908		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 <b>limit/base</b>	0 46 <1 778 864 861 1000 2908 current	     history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 <b>limit/base</b>	0 46 <1 778 864 861 1000 2908 <u>current</u> 6	     history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 limit/base >25 >20	0 46 <1 778 864 861 1000 2908 <u>current</u> 6 2	     history1	     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 limit/base >25 >20	0 46 <1 778 864 861 1000 2908 <u>current</u> 6 2 2 <1	     history1	     history2
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 ASTM D5185m	0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 -20 >5	0 46 <1 778 864 861 1000 2908 <u>current</u> 6 2 <1 € 21.7	      history1	      history2
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	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 >5 <b>limit/base</b>	0 46 <1 778 864 861 1000 2908 <u>current</u> 6 2 2 <1 € 21.7 <b>current</b>	     history1    i history1	     history2     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 >5 <b>imit/base</b> >3 >20	0 46 <1 778 864 861 1000 2908 <u>current</u> 6 2 2 <1 21.7 21.7 <u>current</u> 0.4	     history1    history1	     history2    history2
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	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 >5 <b>imit/base</b> >3 >20	0 46 <1 778 864 861 1000 2908 <b>current</b> 6 2 2 <1 € 21.7 <b>current</b> 0.4 11.0	       history1     history1	      history2    history2
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	ASTM D5185m ASTM D3524 <b>method</b> *ASTM D7844 *ASTM D7624 *ASTM D7415	0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 >5 <b>imit/base</b> >3 >20 >3	0 46 <1 778 864 861 1000 2908 Current 6 2 <1 21.7 Current 0.4 11.0 21.8	history1	      history2     history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 <b>method</b> *ASTM D7844 *ASTM D7624 *ASTM D7415	0 50 950 1050 995 1180 2600 <b>limit/base</b> >25 20 >5 <b>limit/base</b> >3 >20 >30 <b>limit/base</b>	0 46 <1 778 864 861 1000 2908 <b>current</b> 6 2 <1 ▲ 21.7 <b>current</b> 0.4 11.0 21.8 <b>current</b>	history1 history1 history1 history1 history1 history1 history1	i i



**OIL ANALYSIS REPORT** 

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)

Report Id: GASMAN [WUSCAR] 06226893 (Generated: 07/09/2024 18:55:46) Rev: 1

OIL

DIAGNOSTICS

Contact/Location: TARA MUIRHEAD - GASMAN

T:

F: