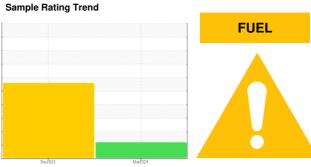


# **OIL ANALYSIS REPORT**

#### Samp



Machine Id 141 (S/N 73591295)

**Diesel Engine** 

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

# DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

## Contamination

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

#### Fluid Condition

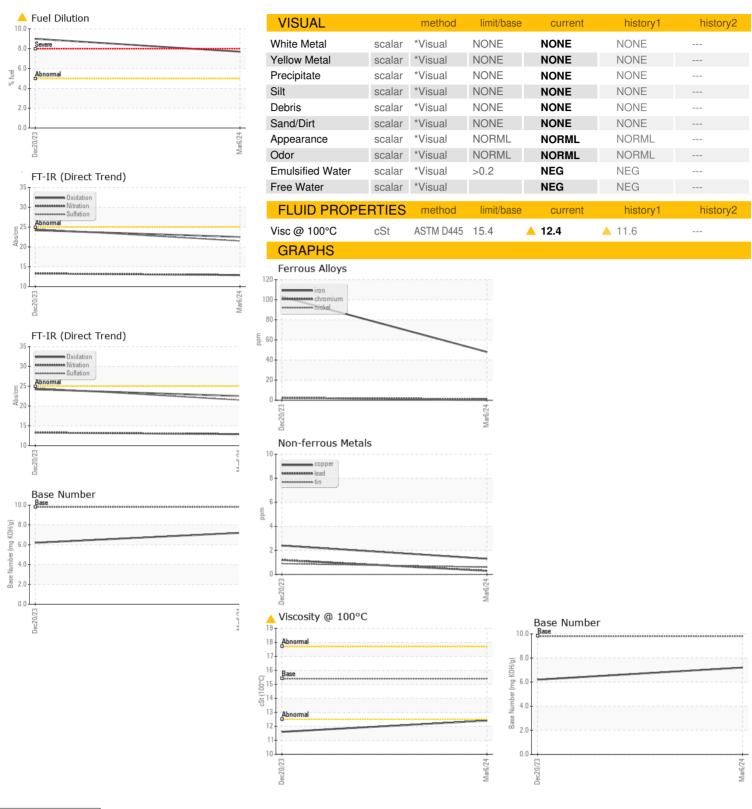
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

GAL)			Dec2023	Mar2024		
	=					
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093084	PCA0093081	
Sample Date		Client Info		06 Mar 2024	20 Dec 2023	
Machine Age	mls	Client Info		629928	618566	
Oil Age	mls	Client Info		11362	23920	
Oil Changed		Client Info		Changed	Changed	
Sample Status				ABNORMAL	SEVERE	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	48	<b>△</b> 103	
Chromium	ppm	ASTM D5185m	>20	1	2	
Nickel	ppm	ASTM D5185m	>4	0	2	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	3	6	
Lead	ppm	ASTM D5185m	>40	<1	1	
Copper	ppm	ASTM D5185m	>330	1	2	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm				history1	history2
Boron	ppm	ASTM D5185m	0	7	32	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	7 0	32 <1	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	7 0 59	32 <1 57	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	0	7 0	32 <1	
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	7 0 59 <1	32 <1 57 1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	7 0 59 <1 802 1170	32 <1 57 1 285	  
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	7 0 59 <1 802	32 <1 57 1 285 1557	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	7 0 59 <1 802 1170 970	32 <1 57 1 285 1557 834	   
Boron 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 ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270	7 0 59 <1 802 1170 970	32 <1 57 1 285 1557 834 1026	
Boron 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 ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	7 0 59 <1 802 1170 970 1169 3341	32 <1 57 1 285 1557 834 1026 2541	   
Boron 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 ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	7 0 59 <1 802 1170 970 1169 3341 current	32 <1 57 1 285 1557 834 1026 2541 history1	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	7 0 59 <1 802 1170 970 1169 3341 current	32 <1 57 1 285 1557 834 1026 2541 history1 ▲ 26	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	7 0 59 <1 802 1170 970 1169 3341 current 8	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	7 0 59 <1 802 1170 970 1169 3341 current 8 2 <1	32 <1 57 1 285 1557 834 1026 2541 history1  26 4 4	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	7 0 59 <1 802 1170 970 1169 3341  current 8 2 <1 7.7	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4 4 ■ 9.0	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	7 0 59 <1 802 1170 970 1169 3341 current 8 2 <1 1 7.7	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4 4 9.0 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	7 0 59 <1 802 1170 970 1169 3341 current 8 2 <1 ▲ 7.7	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4 4 9.0 history1 0.6	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5	7 0 59 <1 802 1170 970 1169 3341 current 8 2 <1 ▲ 7.7 current 0.5 12.9	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4 4 ■ 9.0 history1 0.6 13.3	history2 history2
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 D7624 *ASTM D76145	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20 >30	7 0 59 <1 802 1170 970 1169 3341 current 8 2 <1 1 ↑ 7.7 current 0.5 12.9 21.5	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4 4 ■ 9.0 history1 0.6 13.3 24.5	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm	ASTM D5185m ASTM D78185m ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415 method	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >5 limit/base >3 >20 >30 limit/base	7 0 59 <1 802 1170 970 1169 3341	32 <1 57 1 285 1557 834 1026 2541 history1  ▲ 26 4 4 ■ 9.0 history1  0.6 13.3 24.5 history1	history2 history2

Contact/Location: CRIS BUSH - MCCPAR



## **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

Lab Number : 06161158

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0093084 Unique Number: 10996581

Received **Tested** Diagnosed

: 26 Apr 2024 : 29 Apr 2024 Test Package : FLEET ( Additional Tests: PercentFuel )

: 29 Apr 2024 - Wes Davis

US 38242 Contact: CRIS BUSH cbush@mccartneyproduce.com T: (731)642-2362

**MCCARTNEY PRODUCE** 

459 CULLEY DR

PARIS, TN

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: MCCPAR [WUSCAR] 06161158 (Generated: 04/29/2024 16:38:47) Rev: 1

Contact/Location: CRIS BUSH - MCCPAR