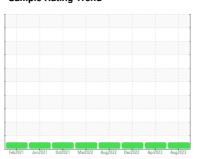


# **OIL ANALYSIS REPORT**

## Sample Rating Trend



NORMAL



Machine Id **2026832** 

Component **Diesel Engine** 

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

## Contamination

There is no indication of any contamination in the oil.

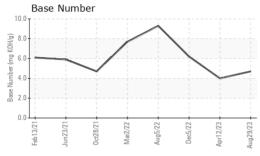
### **Fluid Condition**

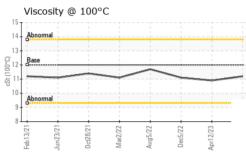
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

QTS)		Feb2021 J	Jun2021 Oct2021 Mar20	22 Aug2022 Dec2022 Apr2023	Aug2023	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101110	PCA0097142	PCA0085162
Sample Date		Client Info		29 Aug 2023	12 Apr 2023	05 Dec 2022
Machine Age	mls	Client Info		0	300099	263926
Oil Age	mls	Client Info		38056	18493	40000
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	36	34	30
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	4	2	4
Lead	ppm	ASTM D5185m	>40	<1	<1	1
Copper	ppm	ASTM D5185m	>330	5	8	9
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
	ppm	ASTM D5185m				
Boron		ASTM D5185m	2	0	0	3
Boron Barium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2	0 0	0	3
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	0 0 58	0 0 61	3 0 58
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	0 0 58 <1	0 0 61 <1	3 0 58 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	0 0 58 <1 938	0 0 61 <1 884	3 0 58 <1 851
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	0 0 58 <1 938 1088	0 0 61 <1 884 1142	3 0 58 <1 851 1146
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	0 0 58 <1 938 1088	0 0 61 <1 884 1142 978	3 0 58 <1 851 1146 887
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	2 0 50 0 950 1050 995 1180	0 0 58 <1 938 1088 964	0 0 61 <1 884 1142 978 1226	3 0 58 <1 851 1146 887 1075
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	2 0 50 0 950 1050 995 1180 2600	0 0 58 <1 938 1088 964 1241 3294	0 0 61 <1 884 1142 978 1226 2812	3 0 58 <1 851 1146 887 1075 3045
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	0 0 58 <1 938 1088 964 1241 3294	0 0 61 <1 884 1142 978 1226 2812 history1	3 0 58 <1 851 1146 887 1075 3045 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	0 0 58 <1 938 1088 964 1241 3294 current	0 0 61 <1 884 1142 978 1226 2812 history1	3 0 58 <1 851 1146 887 1075 3045 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	0 0 58 <1 938 1088 964 1241 3294 current 6	0 0 61 <1 884 1142 978 1226 2812 history1	3 0 58 <1 851 1146 887 1075 3045 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	0 0 58 <1 938 1088 964 1241 3294 current 6 1	0 0 61 <1 884 1142 978 1226 2812 history1 12 0 4	3 0 58 <1 851 1146 887 1075 3045 history2 4 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	0 0 58 <1 938 1088 964 1241 3294 current 6 1	0 0 61 <1 884 1142 978 1226 2812 history1 12 0 4	3 0 58 <1 851 1146 887 1075 3045 history2 4 4 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	0 0 58 <1 938 1088 964 1241 3294 current 6 1 3	0 0 61 <1 884 1142 978 1226 2812 history1 12 0 4 history1	3 0 58 <1 851 1146 887 1075 3045 history2 4 4 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m  method  *ASTM D5185m  *ASTM D5185m  ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	0 0 58 <1 938 1088 964 1241 3294 current 6 1 3 current 0.4 11.3	0 0 61 <1 884 1142 978 1226 2812 history1 12 0 4 history1 0.4	3 0 58 <1 851 1146 887 1075 3045 history2 4 4 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m  method  *ASTM D5185m  *ASTM D5185m  ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	0 0 58 <1 938 1088 964 1241 3294 current 6 1 3 current 0.4 11.3 22.3	0 0 61 <1 884 1142 978 1226 2812 history1 12 0 4 history1 0.4 10.4 20.5	3 0 58 <1 851 1146 887 1075 3045 history2 4 4 4 history2 0.5 11.9 24.4



# **OIL ANALYSIS REPORT**

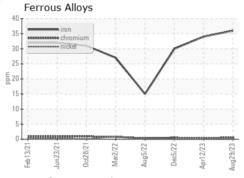


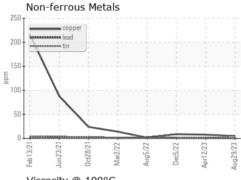


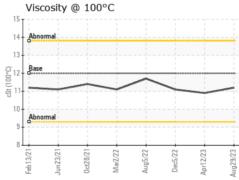
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

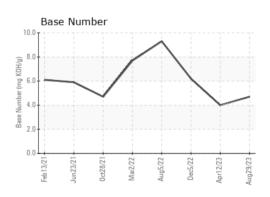
FLUID PROPE	EKITES	metnoa	ilmit/base	current	nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	10.9	11.1

## **GRAPHS**













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10629272 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0101110 : 05938660

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received : 30 Aug 2023 Diagnosed : 31 Aug 2023 Diagnostician : Wes Davis

**PERDUE FARMS - Lewiston** 210 GRIFFINS QUARTER RD LEWISTON, NC

Contact: NELSON WALLACE nelson.wallace2@perdue.com T:

\* - 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) US 27849

F: