

NONE

NONE

<1

17

57

<1.0

NONE

NONE

0

57

85

0.2

NONE

NONE

Machine Id 2227123 Component Diesel Engine PETRO CANADA DURON SHP 10W30 (--- QTS)

RECOMMENDATION Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		PCA0114817	PCA0099544	
	Sample Date		Client Info		04 Feb 2024	25 Dec 2023	
	Machine Age	mls	Client Info		39604	20000	
	Oil Age	mls	Client Info		19604	20000	
	Filter Age	mls	Client Info		19604	20000	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status	Sample Status				ABNORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	21	35	
	· · · · · · · · · · · · · · · · · · ·	ppm ppm	ASTM D5185m ASTM D5185m		21 <1	35 <1	
WEAR Metal levels are typical for a new component breaking in.	Iron			>20			
	Iron Chromium	ppm	ASTM D5185m	>20	<1	<1	
	Iron Chromium Nickel	ppm ppm	ASTM D5185m ASTM D5185m	>20 >4	<1 4	<1 2	
	Iron Chromium Nickel Titanium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>20 >4 >3	<1 4 17	<1 2 <1	
	Iron Chromium Nickel Titanium Silver	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >4 >3	<1 4 17 7	<1 2 <1 17	
	Iron Chromium Nickel Titanium Silver Aluminum	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >4 >3 >20 >40	<1 4 17 7 23	<1 2 <1 17 33	

Vanadium

White Metal

Yellow Metal

Silicon

Fuel

Potassium

ppm

scalar

ppm

ASTM D5185m

ASTM D5185m >25

WC Method >5

*Visual

ppm ASTM D5185m >20

scalar *Visual

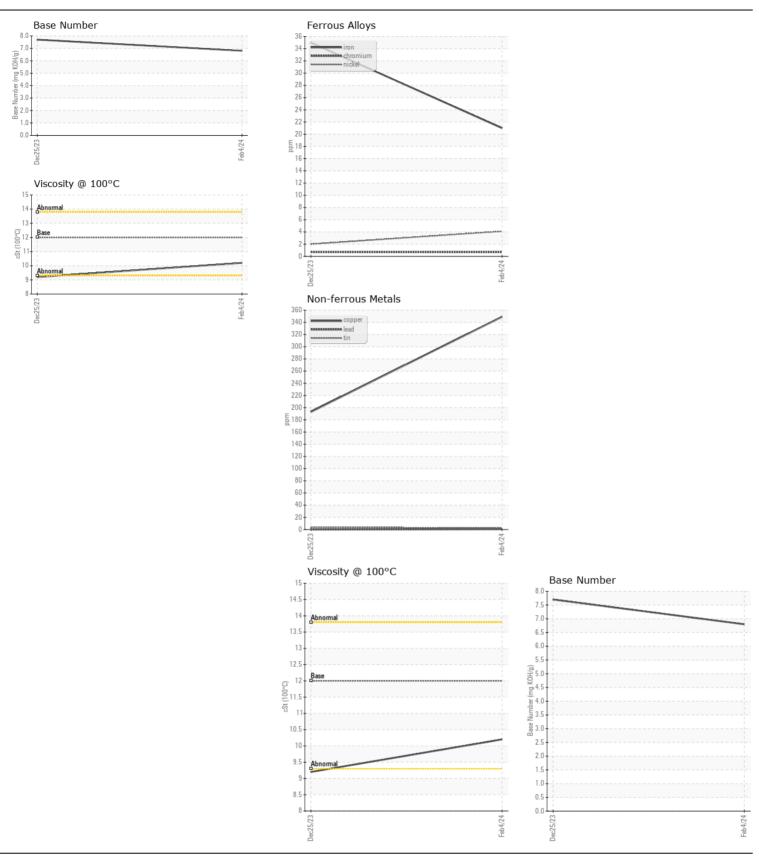
CONTAMINATION

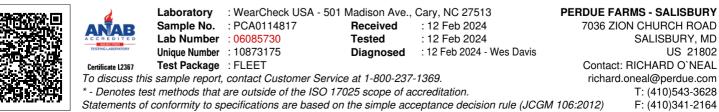
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
Soot %	%	*ASTM D7844	>3	0.2	0.1	
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.9	
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	24.0	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Sodium	ppm	ASTM D5185m		 0	4	
Boron	ppm	ASTM D5185m	2	32	228	
Barium	ppm	ASTM D5185m	0	14	0	
Molybdenum	ppm	ASTM D5185m	50	60	108	
Manganese	ppm	ASTM D5185m	0	2	4	
Magnesium	ppm	ASTM D5185m	950	745	639	
Calcium	ppm	ASTM D5185m	1050	1266	1406	
Phosphorus	ppm	ASTM D5185m	995	980	696	
Zinc	ppm	ASTM D5185m	1180	1084	817	
Sulfur	ppm	ASTM D5185m	2600	3370	2317	
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	21.4	
Base Number (BN)	mg KOH/g	ASTM D2896		6.8	7.7	
Visc @ 100°C	cSt	ASTM D445	12.00	10.2	9.2	

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.





Contact/Location: RICHARD O`NEAL - PERSALMD

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