

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **645159** Component **Diesel Engine** Fluid **PETRO CANADA DURON SHP 10W30 (--- GAL)**

DIAGNOSIS

Recommendation

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

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) 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.

Fluid Condition

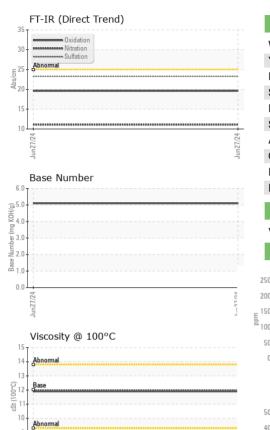
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

AL)				Jun2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121737		
Sample Date		Client Info		27 Jun 2024		
Machine Age	mls	Client Info		32420		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	44		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	<1		
Aluminum	ppm	ASTM D5185m	>20	21		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	7		
Tin	ppm	ASTM D5185m	>15	1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	12		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	50	54		
Manganese	ppm	ASTM D5185m	0	<1		
Magnesium	ppm	ASTM D5185m	950	873		
Calcium	ppm	ASTM D5185m	1050	1233		
Phosphorus	ppm	ASTM D5185m	995	1059		
Zinc	ppm	ASTM D5185m	1180	1244		
Sulfur	ppm	ASTM D5185m	2600	3434		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	9		
Sodium	ppm	ASTM D5185m		4		
Potassium	ppm	ASTM D5185m	>20	49		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4		
Nitration	Abs/cm	*ASTM D7624	>20	11.1		
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3		
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.6		
Base Number (BN)	mg KOH/g	ASTM D2896		5.1		
	9 101.9					



8. Jun27/24

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White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NONE NORML NORML >0.2	NONE NONE NONE NONE NONE NONE NORML		
Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NORML NORML	NONE NONE NONE NORML NORML		
Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML		
Debris Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML		
Sand/Dirt Appearance Odor Emulsified Water Free Water	scalar scalar scalar scalar	*Visual *Visual *Visual	NONE NORML NORML	NONE NORML NORML		
Appearance Odor Emulsified Water Free Water	scalar scalar scalar	*Visual *Visual	NORML NORML	NORML NORML		
Odor Emulsified Water Free Water	scalar scalar	*Visual	NORML	NORML		
Emulsified Water Free Water	scalar					
Free Water		visual	>0.2			
	Scalar	*Visual		NEG NEG		
		VISUAI		NEG		
		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.9		
GRAPHS						
Iron (ppm)			100	Lead (ppm)		
Severe				Severe		
50 -			60			
00 - Abnormal			لم 40-	Abnormal		
50 -			20			
				*		
un27/2			un27/2	un27/2		
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⁵⁰ T			50-	Τ;		
40 - 0			40			
30 - Abnormal			E 30	Abnormal		
				- 0		
				7/24		200
Jun2			Jun2	Jun2		
Copper (ppm)				Silicon (ppm)		
Abnonnal				Severe		
DO						
00 -			튠 40	Abnormal		
DO			20			
n27/24			n27/2 ⁴	n27/2		ACTC
			ημ			3
¹⁶ T			6.0			
Abnormal			۶.0- Ну	-		
Base			E 4.0			
			quin 2.0			
			凝 1.0			
Abnormal						
Amonmal			Jun27/24	Jun27/24		P C/ LC min
	Abnormal Aluminum (ppm) Auminum (ppm) Severe Abnormal Copper (ppm) Severe Viscosity @ 100°C	Iron (ppm)	Iron (ppm)	Iron (ppm) 100 Severe 80 Ahnomal 20 Ahnomal 90 Aluminum (ppm) 50 Anomal 90 Anomal 90	Iron (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Abnomal	Iron (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Abnomal Abnomal Aluminum (ppm) Copper (ppm) Copp

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