

Machine Id

# WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

#### 123001 Component Diesel Engine

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

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.



All component wear rates are normal.

RECOMMENDATION

## CONTAMINATION

Light fuel dilution occurring. No other contaminants were detected in the oil.

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113136		
Sample Date		Client Info		19 Jun 2024		
Machine Age	kms	Client Info		512236		
Oil Age	kms	Client Info		0		
Filter Age	kms	Client Info		0		
Oil Changed	KIII5	Client Info		Changed		
Filter Changed		Client Info		Changed		
0		Client Into		NORMAL		
Sample Status						
Iron	ppm	ASTM D5185(m)	>120	8		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>5	<1		
Titanium	ppm	ASTM D5185(m)	>2	<1		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>20	1		
Lead		ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>330	1		
Tin	ppm	ASTM D5185(m) ASTM D5185(m)	>330	0		
Vanadium	ppm	ASTM D5185(m)	>10	0		
White Metal	ppm	Visual*	NONE	VLITE		
	scalar					
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>25	3		
Potassium	ppm	ASTM D5185(m)	>20	2		
Fuel	%	ASTM D7593*	>3.0	1.4		
Water	70	WC Method	>0.2	NEG		
Glycol		WC Method	20.2	NEG		
Soot %	%	ASTM D7844*	>4	0.1		
Nitration	Abs/cm	ASTM D7624*	>20	7.2		
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.2	NEG		
	Scalai	visuai	20.2			
Sodium	ppm	ASTM D5185(m)		3		
Boron	ppm	ASTM D5185(m)	0	62		
Barium	ppm	ASTM D5185(m)	0	<1		
Molybdenum	ppm	ASTM D5185(m)	60	29		
Manganese	ppm	ASTM D5185(m)	0	<1		
Magnesium	ppm	ASTM D5185(m)	1010	631		
Calcium	ppm	ASTM D5185(m)	1070	1396		
Phosphorus	ppm	ASTM D5185(m)	1150	752		
Zinc	ppm	ASTM D5185(m)	1270	868		
Sulfur	ppm	ASTM D5185(m)	2060	2251		
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.3		
Visc @ 40°C	cSt	ASTM D7279(m)	113.9	92.4		
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.7		
Viscosity Index (VI)	Scale	ASTM D2270*	142	133		
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#### **FLUID CONDITION**

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.



