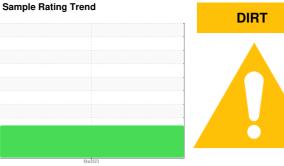


OIL ANALYSIS REPORT



Machine Id 708 Component

Diesel Engine

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

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

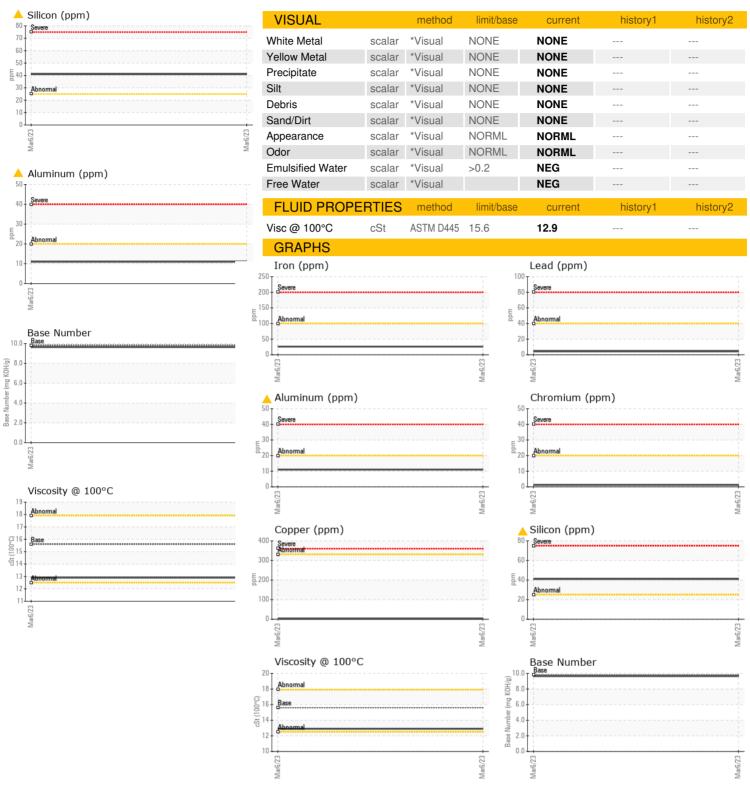
Fluid Condition

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

Sample Number Client Info PCA0054263	L)				Mar2023		
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 5157	Sample Number		Client Info		PCA0054263		
Machine Age hrs Client Info 5157	Sample Date		Client Info		06 Mar 2023		
Dil Age		hrs	Client Info		5157		
CONTAMINATION	-	hrs	Client Info		552		
CONTAMINATION			Client Info		Changed		
WEAR METALS	-						
WEAR METALS	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 histor ron ppm ASTM D5185m >100 26 Chromium ppm ASTM D5185m >20 1 Nickel ppm ASTM D5185m 0 District ppm ASTM D5185m 3 0 Aluminum ppm ASTM D5185m >20 11 Lead ppm ASTM D5185m >40 4 Copper ppm ASTM D5185m >40 4 Copper ppm ASTM D5185m >30 2 Inin ppm ASTM D5185m >15 <1	-uel		WC Method	>5	<1.0		
Chromium	Glycol		WC Method		NEG		
Chromium	WEAR METALS	3	method	limit/base	current	history1	history2
Silver	ron	ppm	ASTM D5185m	>100	26		
Description	Chromium	ppm	ASTM D5185m	>20	1		
Silver ppm ASTM D5185m >3 0	Nickel	ppm	ASTM D5185m	>4	<1		
Aluminum	- Titanium	ppm	ASTM D5185m		0		
December December	Silver	ppm	ASTM D5185m	>3	0		
Copper	Aluminum	ppm	ASTM D5185m	>20	<u> 11</u>		
Tim	_ead	ppm	ASTM D5185m	>40	4		
Asymptotic As	Copper		ASTM D5185m	>330	2		
Anadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history3 Boron ppm ASTM D5185m 3 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 58 Manganese ppm ASTM D5185m 901 Magnesium ppm ASTM D5185m 901 Phosphorus ppm ASTM D5185m 971 Phosphorus ppm ASTM D5185m 971 Phosphorus ppm ASTM D5185m 2979 Cilico ppm ASTM D5185m 25 41 CONTAMINANTS method limit/base current	Γin	ppm	ASTM D5185m	>15	<1		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history3 Boron ppm ASTM D5185m 3 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 58 Manganese ppm ASTM D5185m 901 Magnesium ppm ASTM D5185m 901 Phosphorus ppm ASTM D5185m 971 Phosphorus ppm ASTM D5185m 2979 Zinc ppm ASTM D5185m 2979 CONTAMINANTS method limit/base current history1 history1 Solicon ppm ASTM D5185m >25 41 Potassium ppm ASTM D5185m	/anadium		ASTM D5185m		0		
Soron ppm ASTM D5185m 0	Cadmium		ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 58 Manganese ppm ASTM D5185m 901 Magnesium ppm ASTM D5185m 901 Calcium ppm ASTM D5185m 971 Phosphorus ppm ASTM D5185m 971 Zinc ppm ASTM D5185m 2979 Sulfur ppm ASTM D5185m 2979 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 41 Godium ppm ASTM D5185m >20 8 Potassium ppm ASTM D5185m >20 8 Soldward ppm ASTM D5185m >20 8 Bootassium ppm	Boron	ppm	ASTM D5185m		3		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 901 Calcium ppm ASTM D5185m 1170 Phosphorus ppm ASTM D5185m 971 Zinc ppm ASTM D5185m 2979 Sulfur ppm ASTM D5185m 2979 CONTAMINANTS method limit/base current history1 history1 Solicon ppm ASTM D5185m >25 41 Sodium ppm ASTM D5185m >20 8 Potassium ppm ASTM D5185m >20 8 INFRA-RED method limit/base current history1 history Solf with a signal properties of the properties o	Barium	ppm	ASTM D5185m		0		
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Calcium ppm ASTM D5185m 1170 Phosphorus ppm ASTM D5185m 971 Zinc ppm ASTM D5185m 1223 Sulfur ppm ASTM D5185m 2979 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 41 Sodium ppm ASTM D5185m 20 8 Potassium ppm ASTM D5185m >20 8 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.3 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 FLUID DEGRADATION method limit/base current history1 history1 <td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td><1</td> <td></td> <td></td>	Manganese	ppm	ASTM D5185m		<1		
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Zinc ppm ASTM D5185m 1223 Sulfur ppm ASTM D5185m 2979 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 41 Sodium ppm ASTM D5185m 4 Potassium ppm ASTM D5185m >20 8 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.3 Soulfation Abs/cm *ASTM D7624 >20 11.2 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 21.9	Phosphorus	ppm	ASTM D5185m		971		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 ▲ 41 Sodium ppm ASTM D5185m 4 Potassium ppm ASTM D5185m >20 8 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.3 Soilfration Abs/cm *ASTM D7624 >20 11.2 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 21.9		ppm	ASTM D5185m		1223		
Solition ppm ASTM D5185m >25	Sulfur	ppm	ASTM D5185m		2979		
Sodium	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 8 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 21.9	Silicon	ppm	ASTM D5185m	>25	4 1		
INFRA-RED	Sodium	ppm	ASTM D5185m		4		
Soot %	Potassium	ppm	ASTM D5185m	>20	8		
Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 21.9	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 11.2 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 21.9	Soot %	%	*ASTM D7844	>3	0.3		
Sulfation Abs/.1mm *ASTM D7415 >30 23.9 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 21.9		Abs/cm		>20			
Oxidation							
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	21.9		
Dase Mulliper (DIV)	Base Number (BN)	mg KOH/g	ASTM D2896		9.64		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: PCA0054263 : 05790501 : 10375172 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 13 Mar 2023 Diagnosed : 15 Mar 2023 Diagnostician : Don Baldridge

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) **CENTRAL VALLEY AG**

5707 LANGWORTH OAKDALE, CA US 95361 Contact: S MCHENRY smchenry@cv-ag.com T: (209)630-8094

Report Id: CENOAK [WUSCAR] 05790501 (Generated: 09/26/2023 14:46:21) Rev: 1

Contact/Location: S MCHENRY - CENOAK