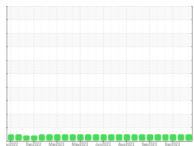


OIL ANALYSIS REPORT

Sample Rating Trend









Machine Id **412032-22** Component

Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

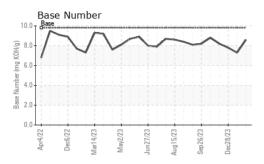
Fluid Condition

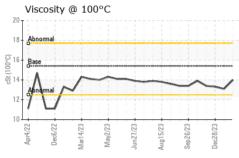
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Number Client Info GFL0110612 GFL0100207	N SHP 15W40 (-	GAL)	pr2022 Dec2	022 Mar2023 May2023	Jun2023 Aug2023 Sep2023	Dec2023	
Client Info	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 200 600	Sample Number		Client Info		GFL0110612	GFL0100207	GFL010020
Oil Age	Sample Date		Client Info		09 Feb 2024	11 Jan 2024	28 Dec 2023
Not Changed Sample Status	Machine Age	hrs	Client Info		6504	80892	80892
NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history1 history1 history1 history1 history1 history1 history1 history1 history2 NEG NE	Oil Age	hrs	Client Info		200	600	600
Fuel	Oil Changed		Client Info		Not Changd	Changed	Not Changd
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water Glycol WC Method >0.2 NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history1 history1 Iron ppm ASTM D5185m >120 3 10 6 Chromium ppm ASTM D5185m >20 <1	CONTAMINA	TION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >120 3 10 6 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Irron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >5 0 0 <1	WEAR METAI	LS	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>120	3	10	6
Nickel	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Description	Nickel						
Silver	Titanium		ASTM D5185m	>2	0	0	0
Aluminum					-		
Lead	Aluminum	- ' '		>20		2	
Copper ppm ASTM D5185m >330 2 2 2 2 Tin ppm ASTM D5185m >15 0 0 <1							
Tin		- ' '					
Vanadium ppm ASTM D5185m 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <1 0 2 Barium ppm ASTM D5185m 0 8 3 0 Molybdenum ppm ASTM D5185m 0 57 64 59 Manganese ppm ASTM D5185m 0 0 0 <1 Magnesium ppm ASTM D5185m 1010 881 1035 958 Calcium ppm ASTM D5185m 1070 966 1037 988 Phosphorus ppm ASTM D5185m 1270 1115 1301 1292 Sulfur ppm ASTM D5185m 2060 2985 3078 2998 CONTAMINANTS method limit/base current his							
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <1				710			
Boron ppm ASTM D5185m 0 3 3 0					-		
Barium ppm ASTM D5185m 0 8 3 0 Molybdenum ppm ASTM D5185m 60 57 64 59 Manganese ppm ASTM D5185m 0 0 0 <1	ADDITIVES		method	limit/base	current	history1	history2
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Sodium ppm ASTM D5185m 0 0 3 Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 0.3 0.3 Nitration Abs/cm *ASTM D7624 >20 5.8 8.1 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.3 19.2 FLUID DEGRADATION method limit/base current history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 14.4 16.0 15.9						5	
Potassium ppm ASTM D5185m >20 2 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.1 0.3 0.3 Nitration Abs/cm *ASTM D7624 >20 5.8 8.1 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.3 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.4 16.0 15.9							
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Nitration Abs/cm *ASTM D7624 >20 5.8 8.1 7.9 Sulfation Abs/.1mm *ASTM D7615 >30 18.1 19.3 19.2 FLUID DEGRADATION method limit/base current bistory1 history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 14.4 16.0 15.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.3 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.4 16.0 15.9	Soot %	%	*ASTM D7844	>4	0.1	0.3	0.3
Sulfation Abs/.1mm *ASTM D7415 >30 18.1 19.3 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.4 16.0 15.9	Nitration	Abs/cm	*ASTM D7624	>20	5.8	8.1	7.9
Oxidation							
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	16.0	15.9
	Base Number (BN)		ASTM D2896		8.6	7.3	7.8



OIL ANALYSIS REPORT

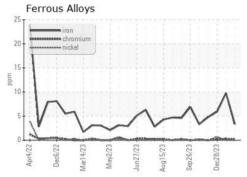


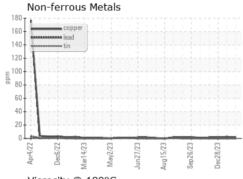


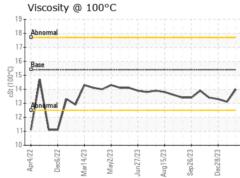
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

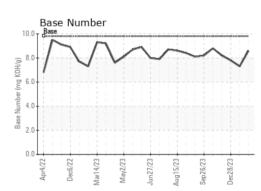
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	13.1	13.3	

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number : 06088509

: GFL0110612 Unique Number : 10875954 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Feb 2024 **Tested** : 15 Feb 2024

Diagnosed : 15 Feb 2024 - Wes Davis

GFL Environmental - 166 - Phenix City

18 Old Brickyard Rd Phenix City, AL US 36869

Contact: DEAN PEACE JR dean.peace@gflenv.com

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)

T:

F: