

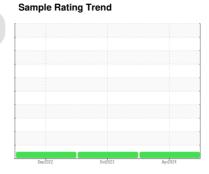
OIL ANALYSIS REPORT



{UNASSIGNED} 720069

1 Diesel Engine

PETRO CANADA DURON SHP 15W40 (40 QTS)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

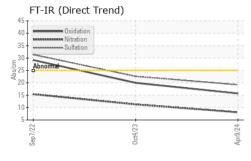
Fluid Condition

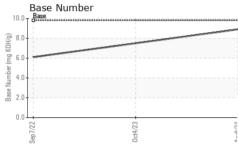
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

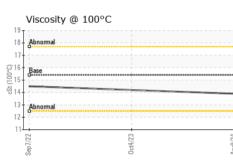
Sample Date Client Info 09 Apr 2024 04 Oct 2023 07 Sep 20.	SAMPLE INFO	RMATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 5557 3173 Oil Age hrs Client Info 0 5557 650 Oil Changed Client Info N/A N/A Changed Sample Status Image: Control of the Info N/A N/A N/A Changed Sample Status Image: Control of the Info N/A N/A N/A Changed CONTAMINATION Image: Control of the Info Image: Control of the Info N/A N/A Changed Weder Wc Method 5 <1.0	Sample Number		Client Info		GFL0066296	GFL0060518	GFL0055745
Oil Age hrs Client Info N/A N/A N/A Changed Sample Status Client Info N/A N/A N/A Changed Sample Status Client Info N/A N/A N/A Changed CONTAMINATION method limit/base current history1 history1 Fuel WC Method SS <1.0 <1.0 <1.0 Water WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM DS185m >80 15 37 74 Chromium ppm ASTM DS185m >5 1 <1 3 Nickel ppm ASTM DS185m >2 <1 0 5 Chromium ppm ASTM DS185m >30 2 4 9 Lead ppm ASTM DS185m >30 2 4 9 Capper<	Sample Date		Client Info		09 Apr 2024	04 Oct 2023	07 Sep 2022
Oil Changed Sample Status Client Info Sample Status N/A NORMAL N	Machine Age	hrs	Client Info		0	5557	3173
Oil Changed Sample Status Client Info Sample Status N/A NORMAL N		hrs	Client Info		0	5557	650
Sample Status	•				-		
CONTAMINATION method limit/base current history1 history1 Fuel WC Method >5 <1.0			00116				
Fuel	·	TION	method	limit/base	current		history2
Water WC Method >0.2 NEG Net Net <t< td=""><td></td><td>_</td><td></td><td></td><th>~1 N</th><td></td><td></td></t<>		_			~1 N		
WEAR METALS							
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >80 15 37 74 Chromium ppm ASTM D5185m >5 1 <1				70. L			
Iron							
Chromium ppm ASTM D5185m >5 1 <1 3 Nickel ppm ASTM D5185m >2 <1	WEAR META	LS	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >2 <1 0 2 Titanium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>80		37	
Titanium	Chromium	ppm	ASTM D5185m	>5	1	<1	3
Silver	Nickel	ppm	ASTM D5185m	>2	<1	0	2
Aluminum	Titanium	ppm	ASTM D5185m		<1	0	5
Lead	Silver	ppm	ASTM D5185m	>3	0	0	<1
Lead	Aluminum	ppm	ASTM D5185m	>30	2	4	9
Copper ppm ASTM D5185m >150 1 2 17 Tin ppm ASTM D5185m >5 <1	Lead	ppm	ASTM D5185m	>30	<1	0	<1
Tin ppm ASTM D5185m >5 <1 0 2 Vanadium ppm ASTM D5185m <1 0 <1 Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 5 2 2 21 Barium ppm ASTM D5185m 0 0 0 0 <1 Molybdenum ppm ASTM D5185m 0 60 65 65 84 Manganese ppm ASTM D5185m 0 <1 0 1 Magnesium ppm ASTM D5185m 1070 1191 1122 2145 Phosphorus ppm ASTM D5185m 1270 1252 1208 1227 Sulfur ppm ASTM D5185m 2060 3180 2656 3203 CONTAMINANTS method limit/base		- ' '		>150	1		
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Calcium ppm ASTM D5185m 1070 1191 1122 2145 Phosphorus ppm ASTM D5185m 1150 1040 965 984 Zinc ppm ASTM D5185m 1270 1252 1208 1227 Sulfur ppm ASTM D5185m 2060 3180 2656 3203 CONTAMINANTS method limit/base current history1 history1 history1 Silicon ppm ASTM D5185m >20 10 6 10 Sodium ppm ASTM D5185m >20 3 9 7 Potassium ppm ASTM D5185m >20 3 9 7 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.8 1.2 Nitration Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION *AS	•						
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Sodium ppm ASTM D5185m 8 9 7 Potassium ppm ASTM D5185m >20 3 9 7 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.4 0.8 1.2 Nitration Abs/cm *ASTM D7624 >20 8.1 11.3 15.4 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	CONTAMINA	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 9 7 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.4 0.8 1.2 Nitration Abs/cm *ASTM D7624 >20 8.1 11.3 15.4 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	Silicon	ppm	ASTM D5185m	>20	10		
INFRA-RED	Sodium	ppm	ASTM D5185m		8	9	7
Soot % % *ASTM D7844 >3 0.4 0.8 1.2 Nitration Abs/cm *ASTM D7624 >20 8.1 11.3 15.4 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION method limit/base current history1 history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	Potassium	ppm	ASTM D5185m	>20	3	9	7
Nitration Abs/cm *ASTM D7624 >20 8.1 11.3 15.4 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION method limit/base current history1 history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	Soot %	%	*ASTM D7844	>3	0.4	0.8	1.2
Sulfation Abs/.1mm *ASTM D7415 >30 19.2 22.6 31.4 FLUID DEGRADATION method limit/base current history1 history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	Nitration	Abs/cm	*ASTM D7624	>20	8.1	11.3	15.4
Oxidation Abs/.1mm *ASTM D7414 >25 15.7 20.0 29.2	Sulfation	Abs/.1mm		>30			
	FLUID DEGRA	ADATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	20.0	29,2
	Base Number (BN				8.9	7.5	6.1



OIL ANALYSIS REPORT



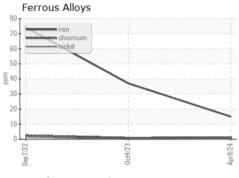


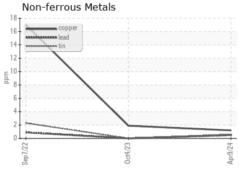


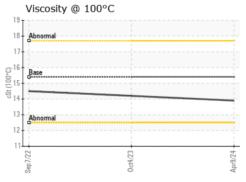
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

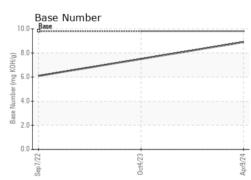
FLUID PROPI	EHILO	method			riistory i	nistoryz
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	14.2	14.5

GRAPHS













Laboratory

Sample No. : GFL0066296 Lab Number : 06148298 Unique Number : 10978376

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

: 15 Apr 2024 Diagnosed : 15 Apr 2024 - Wes Davis

GFL Environmental - 938 - Hager City

W9724 WIS-35 HAGER CITY, WI US 54014

Contact: ANDY KANE

Test Package : FLEET Certificate 12367 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: (715)202-3420