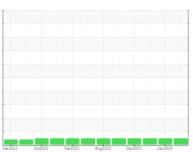


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **812036**

Component **Diesel Engine**

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

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

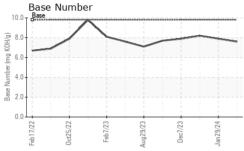
Fluid Condition

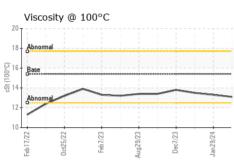
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Number Client Info CFL0107963 CFL0107967 CFL0107963 CFL0107967 CFL0107963 CFL0107967 CFL0107967	Silots)		Feb2022	Oct2022 Feb2023	Aug2023 Dec2023 J	an 2024	
Sample Date	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		GFL0107963	GFL0107967	GFL0107951
Oil Age hrs Client Info Not Changd	Sample Date		Client Info		20 Feb 2024	29 Jan 2024	08 Jan 2024
Oil Changed Sample Status Client Info Not Changd NORMAL NO	Machine Age	hrs	Client Info		4352	4227	4102
Sample Status	Oil Age	hrs	Client Info		0	0	0
Fuel	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method >0.2 NEG Netory Netory NEG NEG NEG Netory Netory Neton Neton <th>CONTAMINAT</th> <th>ION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINAT	ION	method	limit/base	current	history1	history2
Silver	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >4 <1 <1 0 Nickel ppm ASTM D5185m >2 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >25 4 3 2 Lead ppm ASTM D5185m >45 0 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>110	11	5	1
Titanium	Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Silver	Nickel	ppm	ASTM D5185m	>2	0	0	0
Altuminum ppm ASTM D5185m >25 4 3 2 Lead ppm ASTM D5185m >45 0 <1	Titanium	ppm	ASTM D5185m		<1	<1	0
Lead	Silver	ppm	ASTM D5185m	>2	0	0	
Copper ppm ASTM D5185m >85 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <0 <1 <1 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0	Aluminum	ppm	ASTM D5185m	>25	4	3	2
Tin ppm ASTM D5185m >4 <1 <1 0 Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 1 1 <1 <1 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 61 61 55 Manganese ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 20	Lead	ppm	ASTM D5185m	>45	0	<1	0
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 1 1 <1 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 61 61 55 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current h	Copper	ppm	ASTM D5185m	>85	1	<1	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 1 1 <1	Tin	ppm	ASTM D5185m	>4	<1	<1	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0 1 1 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 61 61 55 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1150 1003 1014 965 Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 61 61 55 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1150 1003 1014 965 Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7624 <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th></th> <td>1</td> <td></td>	Boron	ppm	ASTM D5185m	0		1	
Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1150 1003 1014 965 Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 1010 952 902 945 Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1150 1003 1014 965 Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D741	Molybdenum	ppm			61	61	
Calcium ppm ASTM D5185m 1070 1070 1013 1024 Phosphorus ppm ASTM D5185m 1150 1003 1014 965 Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 Potassium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION metho	Manganese	ppm	ASTM D5185m	0	<1	<1	0
Phosphorus ppm ASTM D5185m 1150 1003 1014 965 Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION limit/base current history1 history1 Oxidation Abs/.1mm *ASTM D7414 <td>Magnesium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>1010</td> <th>952</th> <td>902</td> <td>945</td>	Magnesium	ppm	ASTM D5185m	1010	952	902	945
Zinc ppm ASTM D5185m 1270 1200 1150 1276 Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7624 >3 0.4 0.3 0.2 Nitration Abs/.mm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm	Calcium	ppm	ASTM D5185m	1070	1070	1013	1024
Sulfur ppm ASTM D5185m 2060 2809 2791 2899 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m >20 0 0 1 Potassium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3		ppm		1150	1003		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m 1 1 1 <1		ppm	ASTM D5185m	1270	1200	1150	1276
Silicon ppm ASTM D5185m >30 0 3 2 Sodium ppm ASTM D5185m 1 1 1 <1 Potassium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3			ASTM D5185m	2060	2809		
Sodium ppm ASTM D5185m 1 1 <1 <1 Potassium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 0 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	Silicon	ppm	ASTM D5185m	>30	0	3	2
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	Sodium	ppm	ASTM D5185m		1	1	<1
Soot % % *ASTM D7844 >3 0.4 0.3 0.2 Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	Potassium	ppm	ASTM D5185m	>20	0	0	1
Nitration Abs/cm *ASTM D7624 >20 7.9 7.1 6.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.5 19.1 18.5 FLUID DEGRADATION method limit/base current history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3		%	*ASTM D7844	>3	0.4		0.2
FLUID DEGRADATION method limit/base current history1 history1 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	Nitration	Abs/cm	*ASTM D7624	>20	7.9	7.1	6.6
Oxidation Abs/.1mm *ASTM D7414 >25 15.2 14.5 14.3	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	19.1	18.5
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 7.6 7.9 8.2	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	14.5	14.3
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.6	7.9	8.2



OIL ANALYSIS REPORT

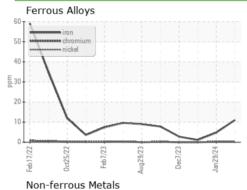


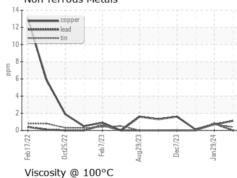


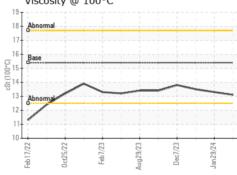
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

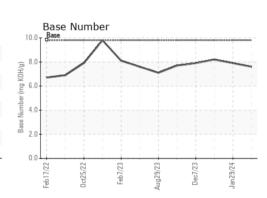
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.3	13.5	

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number : 06096764

Test Package : FLEET

: GFL0107963 Unique Number: 10889617

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Feb 2024 **Tested**

: 23 Feb 2024 Diagnosed : 23 Feb 2024 - Wes Davis

GFL Environmental - 892 - Pauls Valley Hauling

405 East Airport Industrial Road Pauls Valley, OK US 73075

Contact: Tony Graham tgraham2@wcamerica.com T:

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)

F: