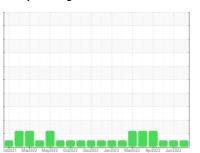


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



741006-310097

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.

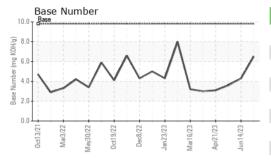
Fluid Condition

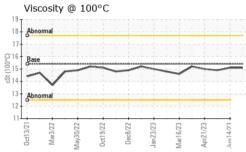
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

,		Jet2021 Mar20	ZZ May20ZZ OCZOZZ Del	2022 Jan2023 Mar2023 Apr2023	ouncoed.	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0084612	GFL0084715	GFL0078113
Sample Date		Client Info		13 Sep 2023	14 Jun 2023	09 May 2023
Machine Age	mls	Client Info		106895	0	7370
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	9	20	19
Chromium	ppm	ASTM D5185m	>4	<1	2	2
Nickel	ppm	ASTM D5185m	>2	0	1	1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	4	4
Lead	ppm	ASTM D5185m	>45	0	21	23
Copper	ppm	ASTM D5185m	>85	0	2	2
Tin	ppm	ASTM D5185m	>4	0	2	2
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
				_		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base			history2
	ppm	ASTM D5185m		current	history1	
Boron	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m	0	current	history1	8
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	current 18 0	history1 14 0	8
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	current 18 0 53	history1 14 0 66	8 0 62
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	current 18 0 53 <1	history1 14 0 66	8 0 62 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	current 18 0 53 <1 629	history1 14 0 66 1 726	8 0 62 <1 621
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	current 18 0 53 <1 629 1678	history1 14 0 66 1 726 2073	8 0 62 <1 621 1863
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	current 18 0 53 <1 629 1678 721	history1 14 0 66 1 726 2073 914	8 0 62 <1 621 1863 839
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270	current 18 0 53 <1 629 1678 721 969	history1 14 0 66 1 726 2073 914 1158	8 0 62 <1 621 1863 839 1077
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 18 0 53 <1 629 1678 721 969 2916	history1 14 0 66 1 726 2073 914 1158 3164	8 0 62 <1 621 1863 839 1077 2447
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 18 0 53 <1 629 1678 721 969 2916 current	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10	8 0 62 <1 621 1863 839 1077 2447 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	current 18 0 53 <1 629 1678 721 969 2916 current 5	history1 14 0 66 1 726 2073 914 1158 3164 history1 7	8 0 62 <1 621 1863 839 1077 2447 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	current 18 0 53 <1 629 1678 721 969 2916 current 5 6	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10	8 0 62 <1 621 1863 839 1077 2447 history2 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >30	current 18 0 53 <1 629 1678 721 969 2916 current 5 6	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10 <1	8 0 62 <1 621 1863 839 1077 2447 history2 7 12 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >30	current 18 0 53 <1 629 1678 721 969 2916 current 5 6 0 current	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10 <1	8 0 62 <1 621 1863 839 1077 2447 history2 7 12 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >30 >20 limit/base	current 18 0 53 <1 629 1678 721 969 2916 current 5 6 0 current	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10 <1	8 0 62 <1 621 1863 839 1077 2447 history2 7 12 2 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m Method *ASTM D7624 *ASTM D7624 *ASTM D76145	0 0 60 0 1010 1070 1150 1270 2060 limit/base >30 >20 limit/base	current 18 0 53 <1 629 1678 721 969 2916 current 5 6 0 current 0.1 9.6	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10 <1 history1 0.1 12.8	8 0 62 <1 621 1863 839 1077 2447 history2 7 12 2 history2 0.1 13.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m Method *ASTM D7624 *ASTM D7624 *ASTM D76145	0 0 60 0 1010 1070 1150 1270 2060 limit/base >30 >20 limit/base >3 >20 >30	current 18 0 53 <1 629 1678 721 969 2916 current 5 6 0 current 0.1 9.6 20.2	history1 14 0 66 1 726 2073 914 1158 3164 history1 7 10 <1 history1 0.1 12.8 29.9	8 0 62 <1 621 1863 839 1077 2447 history2 7 12 2 history2 0.1 13.3 29.9



OIL ANALYSIS REPORT

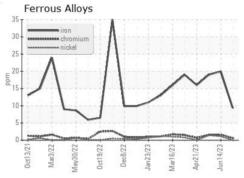


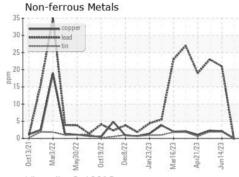


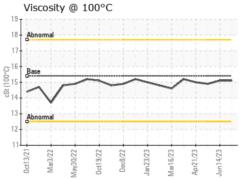
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

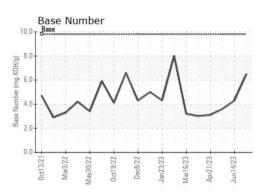
FLUID PROPE	RTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	15.1	15.1	14.9

GRAPHS













Certificate L2367

Laboratory Sample No.

Lab Number **Unique Number** Test Package : FLEET

: GFL0084612 : 05954542 : 10655755

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 18 Sep 2023

Diagnosed : 20 Sep 2023 Diagnostician : Don Baldridge GFL Environmental - 856 - Houston South

8515 Highway 6 South Houston, TX US 77083

Contact: KEITH ROWALD krowald@gflenv.com

T: (303)641-3906

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)