

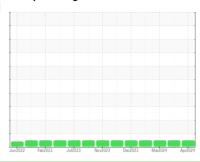
OIL ANALYSIS REPORT

Sample Rating Trend

MONTGOMERY HINO 229059

Diesel Engine

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





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

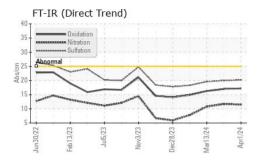
Fluid Condition

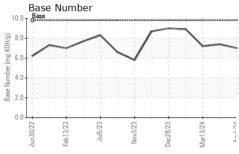
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

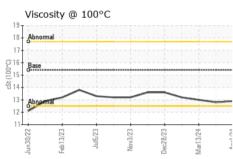
	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0083568	GFL0115602	GFL0115595
Sample Date		Client Info		01 Apr 2024	27 Mar 2024	13 Mar 2024
Machine Age	hrs	Client Info		10221	10171	10124
Oil Age	hrs	Client Info		568	518	0
Oil Changed		Client Info		Changed	Not Changd	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
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	10	8	10
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	5	6	5
Lead	ppm	ASTM D5185m	>40	<1	1	1
Copper	ppm	ASTM D5185m	>330	3	1	3
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	3	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	66	59	0=
•		/ TO THE DO TOOM	00	00	59	65
Manganese	ppm	ASTM D5185m		<1	<1	65 <1
Manganese Magnesium						
•	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	1010	<1 1005	<1 938	<1 972
Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070	<1 1005 1144	<1 938 1058	<1 972 1133
Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150	<1 1005 1144 1064	<1 938 1058 1033	<1 972 1133 1076
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270	<1 1005 1144 1064 1342	<1 938 1058 1033 1291	<1 972 1133 1076 1338
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060	<1 1005 1144 1064 1342 3784	<1 938 1058 1033 1291 3560	<1 972 1133 1076 1338 3485
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 1010 1070 1150 1270 2060	<1 1005 1144 1064 1342 3784	<1 938 1058 1033 1291 3560 history1	<1 972 1133 1076 1338 3485 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 1010 1070 1150 1270 2060	<1 1005 1144 1064 1342 3784 current	<1 938 1058 1033 1291 3560 history1	<1 972 1133 1076 1338 3485 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >25	<1 1005 1144 1064 1342 3784 current 4	<1 938 1058 1033 1291 3560 history1 5	<1 972 1133 1076 1338 3485 history2 6 2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 1010 1070 1150 1270 2060 Iimit/base >25 >20	<1 1005 1144 1064 1342 3784 current 4 4 3	<1 938 1058 1033 1291 3560 history1 5 4	<1 972 1133 1076 1338 3485 history2 6 2 6
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	<1 1005 1144 1064 1342 3784 current 4 4 3 current	<1 938 1058 1033 1291 3560 history1 5 4 5	<pre><1 972 1133 1076 1338 3485 history2 6 2 6 history2</pre>
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D7844	0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	<1 1005 1144 1064 1342 3784 current 4 4 3 current 0.9	<1 938 1058 1033 1291 3560 history1 5 4 5 history1 0.9	<pre><1 972 1133 1076 1338 3485 history2 6 2 6 history2 0.8</pre>
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20	<1 1005 1144 1064 1342 3784 current 4 4 3 current 0.9 11.5	<pre><1 938 1058 1033 1291 3560 history1 5 4 5 history1 0.9 11.7</pre>	<1 972 1133 1076 1338 3485 history2 6 2 6 history2 0.8 10.8
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20 >30	<1 1005 1144 1064 1342 3784	<1 938 1058 1033 1291 3560 history1 5 4 5 history1 0.9 11.7 20.0	<pre><1 972 1133 1076 1338 3485 history2 6 2 6 history2 0.8 10.8 19.6</pre>



OIL ANALYSIS REPORT



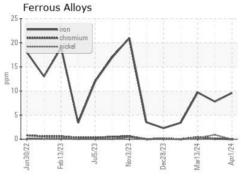


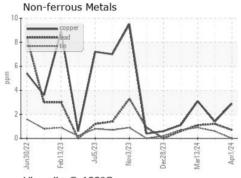


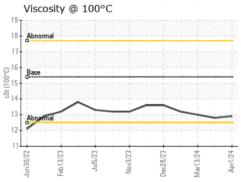
VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	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

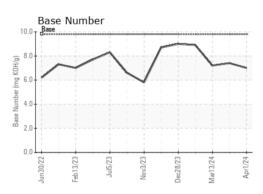
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	12.8	13.0	

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number : 06137267 Unique Number : 10956732

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: GFL0083568

Received **Tested**

: 03 Apr 2024 : 04 Apr 2024 Diagnosed

: 04 Apr 2024 - Wes Davis

GFL Environmental - 955 - Montgomery

1121 Wilbanks St Montgomery, AL US 36108

Contact: LISA REEVES

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)

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