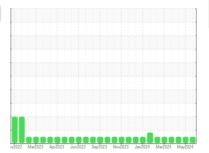


OIL ANALYSIS REPORT

Sample Rating Trend









Machine Id
913005
Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (600 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

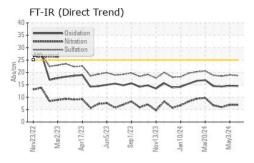
Fluid Condition

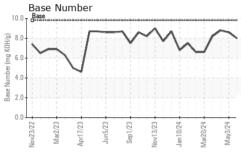
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

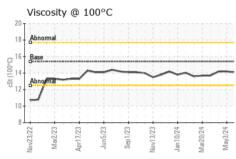
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0118660	GFL0118732	GFL0110624
Sample Date		Client Info		07 May 2024	03 May 2024	15 Apr 2024
Machine Age	hrs	Client Info		4721	54546	54546
Oil Age	hrs	Client Info		600	600	7448
Oil Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<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	>120	8	8	6
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	2	3	3
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	1	2	1
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>330	4	2	2
Tin	ppm	ASTM D5185m	>15	1	1	2
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	0	0
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	60	59	63	60
Manganese	ppm	ASTM D5185m	0	1	<1	1
Magnesium	ppm	ASTM D5185m	1010			
Calcium			1010	986	948	935
Calciulii	ppm	ASTM D5185m		986 1070	948 1077	935 1077
	ppm					
Calcium Phosphorus Zinc	ppm	ASTM D5185m	1070 1150	1070	1077	1077
Phosphorus		ASTM D5185m ASTM D5185m	1070 1150	1070 1026	1077 1075	1077 1106
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270	1070 1026 1251	1077 1075 1192	1077 1106 1207
Phosphorus Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base	1070 1026 1251 3389	1077 1075 1192 3176	1077 1106 1207 3458
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1070 1150 1270 2060 limit/base	1070 1026 1251 3389 current	1077 1075 1192 3176 history1	1077 1106 1207 3458 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1070 1150 1270 2060 limit/base	1070 1026 1251 3389 current	1077 1075 1192 3176 history1	1077 1106 1207 3458 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25	1070 1026 1251 3389 current 4	1077 1075 1192 3176 history1 4	1077 1106 1207 3458 history2 4
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25 >20	1070 1026 1251 3389 current 4 3	1077 1075 1192 3176 history1 4 <1	1077 1106 1207 3458 history2 4 2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25 >20 limit/base	1070 1026 1251 3389 current 4 3 0	1077 1075 1192 3176 history1 4 <1 3	1077 1106 1207 3458 history2 4 2 2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844	1070 1150 1270 2060 limit/base >25 >20 limit/base	1070 1026 1251 3389 current 4 3 0 current	1077 1075 1192 3176 history1 4 <1 3 history1 0.5	1077 1106 1207 3458 history2 4 2 2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm TS ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624	1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20	1070 1026 1251 3389 current 4 3 0 current 0.5 6.9	1077 1075 1192 3176 history1 4 <1 3 history1 0.5 6.9	1077 1106 1207 3458 history2 4 2 2 history2 0.3 6.0
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm TS ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1070 1150 1270 2060 limit/base >25 >20 limit/base >4 >20 >30	1070 1026 1251 3389 current 4 3 0 current 0.5 6.9 18.7	1077 1075 1192 3176 history1 4 <1 3 history1 0.5 6.9 19.0	1077 1106 1207 3458 history2 4 2 2 history2 0.3 6.0 18.5



OIL ANALYSIS REPORT



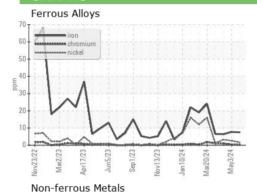


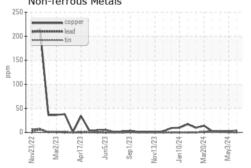


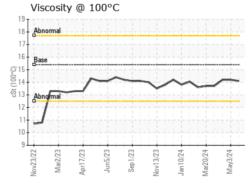
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

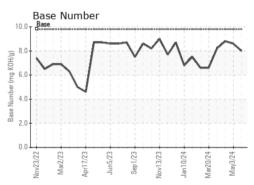
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	14.2	14.2

GRAPHS













Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06176716 Unique Number : 11022769

Test Package : FLEET

: GFL0118660

Received : 13 May 2024 **Tested** Diagnosed

: 14 May 2024 : 14 May 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 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) Report Id: GFL166 [WUSCAR] 06176716 (Generated: 05/14/2024 10:33:36) Rev: 1

Submitted By: DARRIN WRIGHT

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