

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 812044

Component **Diesel Engine**

Fluid PETRO CANADA DURON SHP 15W40 (8 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.

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		method	limit/base	023 Jul2023 Sep2023 N	biotony1	history?
			IIIIII/Dase	current	history1	history2
Sample Number		Client Info		GFL0101205	GFL0101275	GFL0101232
Sample Date	la un	Client Info		22 Dec 2023	04 Dec 2023	29 Nov 2023
Machine Age	hrs	Client Info		6608	6480	6428
Oil Age	hrs	Client Info Client Info		128 Not Changed	584 Changed	532 Not Changed
Oil Changed		Client Inio		Not Changd NORMAL	Changed NORMAL	Not Changd NORMAL
Sample Status				NORMAL	NORIVIAL	NORIVIAL
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	>110	4	13	12
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	2
_ead	ppm	ASTM D5185m	>45	0	0	0
Copper	ppm	ASTM D5185m	>85	0	<1	<1
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	4	7	6
Barium	ppm	ASTM D5185m	0	0	2	0
Volybdenum	ppm	ASTM D5185m	60	57	63	57
Manganese	ppm	ASTM D5185m	0	0	0	0
Magnesium	ppm	ASTM D5185m	1010	826	776	791
Calcium	ppm	ASTM D5185m	1070	1007	1080	1111
Phosphorus	ppm	ASTM D5185m	1150	943	846	956
Zinc	ppm	ASTM D5185m	1270	1105	1075	1110
Sulfur	ppm	ASTM D5185m	2060	3160	2922	2586
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	2	4	4
Sodium	ppm	ASTM D5185m		0	0	2
Potassium	ppm	ASTM D5185m	>20	2	4	0
		method	limit/base	current	history1	history2
INFRA-RED			-	0.2	0.6	0.5
	%	*ASTM D7844	>3	0.2	0.0	0.0
Soot %	% Abs/cm	*ASTM D7844 *ASTM D7624	>3 >20	5.4	7.7	7.4
Soot % Nitration						
Soot % Nitration	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>20	5.4	7.7	7.4
Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>20 >30	5.4 17.0	7.7 18.3	7.4 17.8



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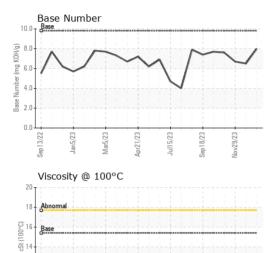
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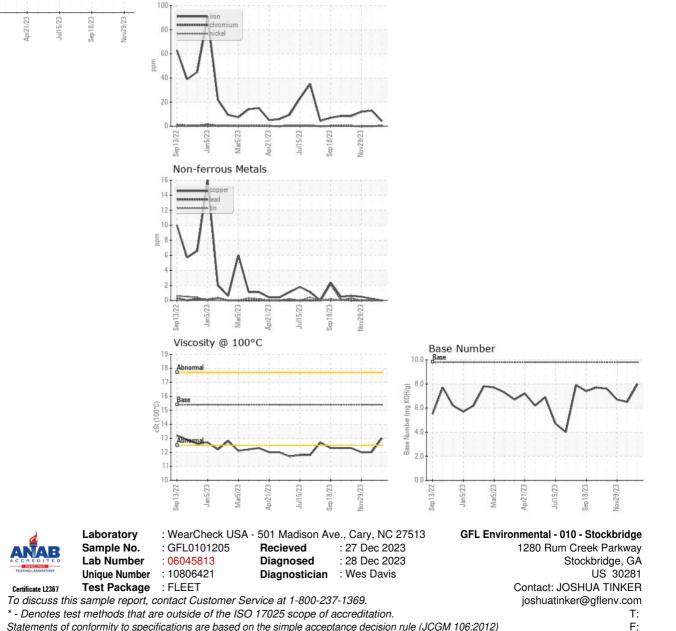
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	12.0	12.0
GRAPHS						

Ferrous Alloys



Submitted By: JOSHUA TINKER