

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

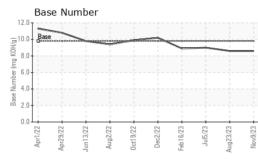
Fluid Condition

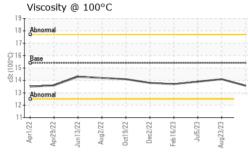
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

AL)		Apr/1027 Apr/	122 Jun 2022 Aug2022 0	022 Dec2022 Feb2023 Jul2023 Aug2		
SAMPLE INFOR	MATION		limit/base		history1	history2
Sample Number		Client Info		GFL0094715	GFL0089281	GFL0087120
Sample Date		Client Info		09 Nov 2023	23 Aug 2023	05 Jul 2023
Machine Age	hrs	Client Info		5131	4537	4160
Oil Age	hrs	Client Info		0	0	0
Oil Changed	1110	Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
-						
WEAR METAL	.S	method	limit/base		history1	history2
Iron	ppm	ASTM D5185m	>75	9	8	11
Chromium	ppm	ASTM D5185m	>5	1	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	1	0
Aluminum	ppm	ASTM D5185m	>15	6	6	12
_ead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>100	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	1	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	58	60
Vanganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1008	896	978
Calcium	ppm	ASTM D5185m	1070	1133	1059	1073
Phosphorus	ppm	ASTM D5185m	1150	1135	992	1053
Zinc	ppm	ASTM D5185m	1270	1338	1188	1325
Sulfur	ppm	ASTM D5185m		3101	3046	3839
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	2	3	3
Sodium	ppm	ASTM D5185m		2	3	3
Potassium	ppm	ASTM D5185m	>20	16	20	25
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.4	0.2	0.4
Nitration	Abs/cm	*ASTM D7624		6.9	5.9	7.1
Sulfation	Abs/.1mm	*ASTM D7415		18.7	17.6	19.4
FLUID DEGRA	DA <u>TION</u>	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.3	13.4	14.8
Base Number (BN)	mg KOH/g	ASTM D2896		8.6	10.4	9.0

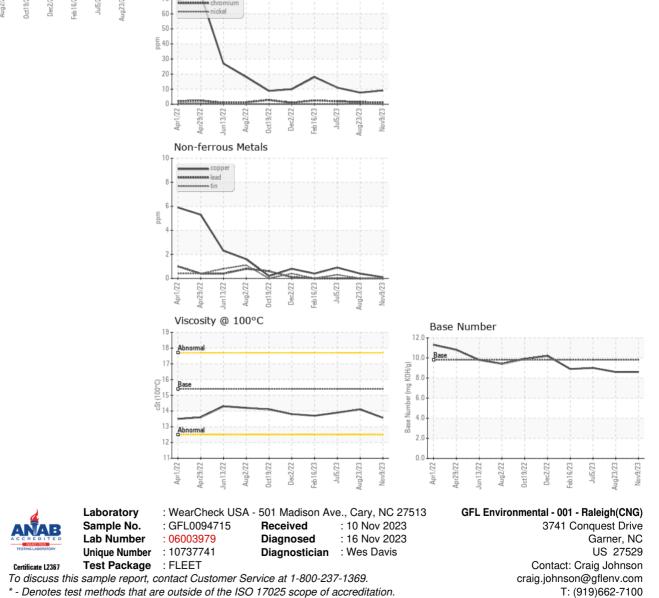


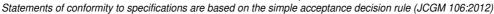
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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 PROPER	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.57	14.1	13.9
GRAPHS						
Ferrous Alloys						
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F: (919)662-7130

