



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
8615
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		NL0002080	NL0001792	NL0001744
Sample Date		Client Info		10 Apr 2024	26 Dec 2023	29 Aug 2023
Machine Age	mls	Client Info		266030	232052	197174
Oil Age	mls	Client Info		45000	45000	45000
Filter Age	mls	Client Info		45000	45000	45000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	49	51	38
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	2	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	7	8	5
Lead	ppm	ASTM D5185m	>40	2	3	3
Copper	ppm	ASTM D5185m	>330	14	18	15
Tin	ppm	ASTM D5185m	>15	1	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

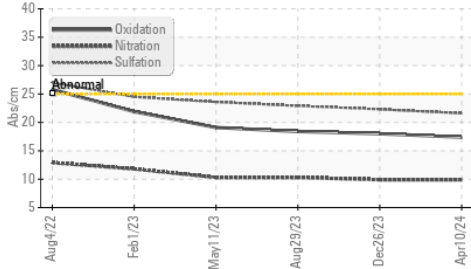
Silicon	ppm	ASTM D5185m	>25	8	7	7
Potassium	ppm	ASTM D5185m	>20	5	7	8
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.8	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.9	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	22.3	22.9
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

FLUID CONDITION

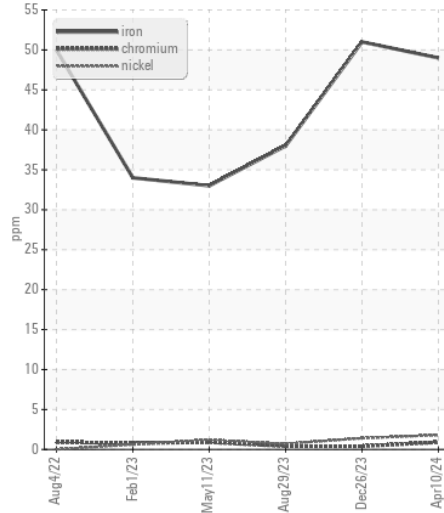
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	0	0
Boron	ppm	ASTM D5185m	0	7	2	2
Barium	ppm	ASTM D5185m	0	<1	<1	4
Molybdenum	ppm	ASTM D5185m	60	63	77	68
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1006	1120	915
Calcium	ppm	ASTM D5185m	1070	1116	1309	1159
Phosphorus	ppm	ASTM D5185m	1150	990	1183	1009
Zinc	ppm	ASTM D5185m	1270	1306	1447	1237
Sulfur	ppm	ASTM D5185m	2060	3039	3633	3167
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	18.0	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.4	6.1	6.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.6	13.8

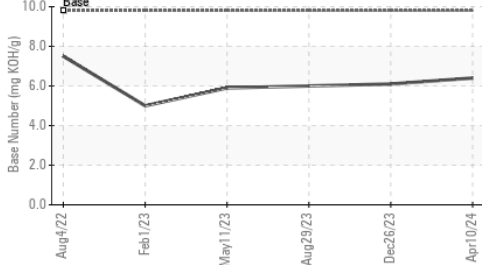
FT-IR (Direct Trend)



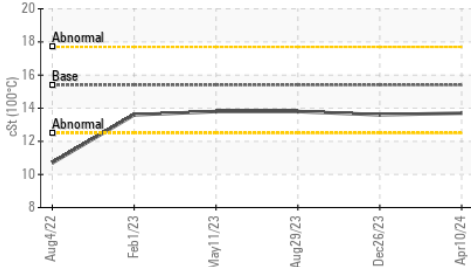
Ferrous Alloys



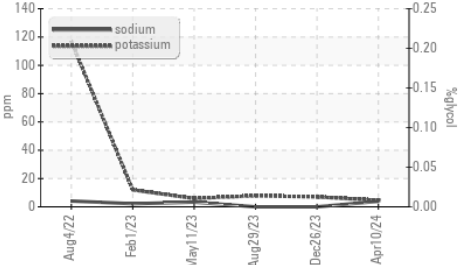
Base Number



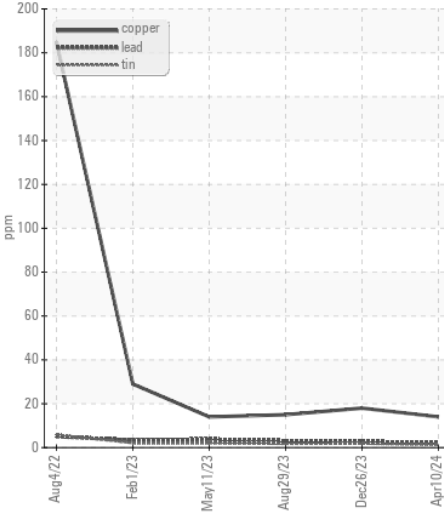
Viscosity @ 100°C



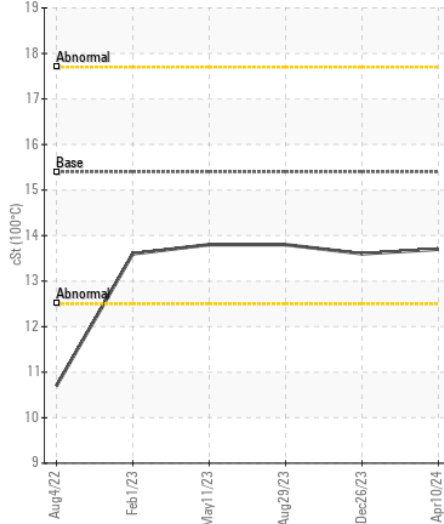
Glycol Contamination



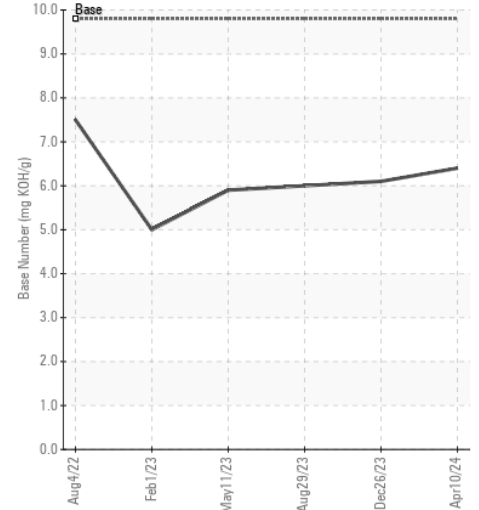
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : NL0002080 **Received** : 24 Jun 2024
Lab Number : 06217844 **Tested** : 27 Jun 2024
Unique Number : 11096041 **Diagnosed** : 27 Jun 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

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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)