

Machine Id
1630

Component
Rear Diesel Engine

Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. (Customer Sample Comment: Oil interval over by 803 kms)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number	Client Info			PC0061467	PC0018624	PC0025044
Sample Date	Client Info			17 Jun 2023	26 Apr 2022	26 Feb 2022
Machine Age	kms	Client Info		443300	365284	365284
Oil Age	kms	Client Info		12803	12000	12079
Oil Changed	Client Info			Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel	WC Method		>5	<1.0	<1.0	<1.0

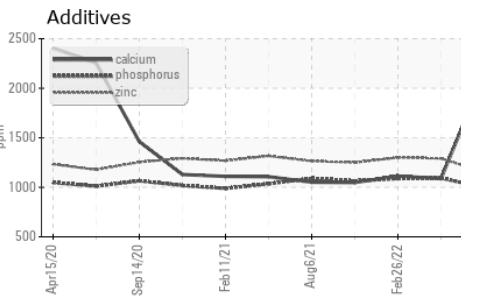
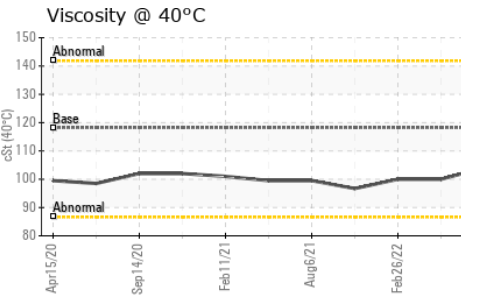
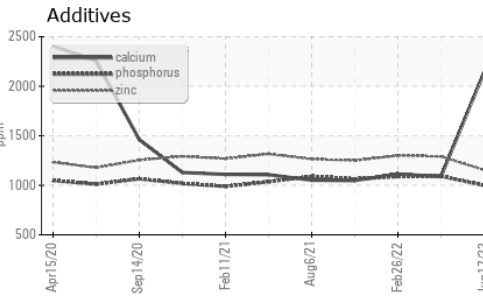
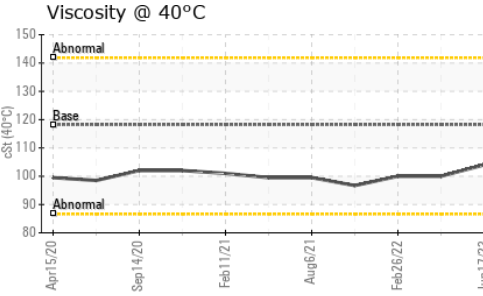
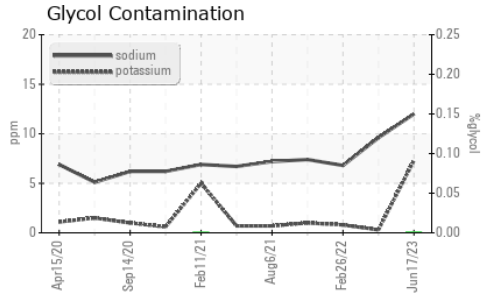
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>100	25	22	27
Chromium	ppm	ASTM D5185(m)	>20	3	1	2
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	5	3	4
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	6	6	6
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m)	0	59	1	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	6	62	61
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	77	1051	1063
Calcium	ppm	ASTM D5185(m)	1070	2142	1087	1114
Phosphorus	ppm	ASTM D5185(m)	1150	999	1092	1088
Zinc	ppm	ASTM D5185(m)	1270	1154	1291	1300
Sulfur	ppm	ASTM D5185(m)	2060	2807	2559	2582
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>25	6	6	6
Sodium	ppm	ASTM D5185(m)		12	10	7
Potassium	ppm	ASTM D5185(m)	>20	7	<1	<1
Glycol	%	ASTM D7922*		0.0	NEG	NEG

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7844*	>3	0.3	0.4	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.1	9.0	9.2
Sulfation	Abs./1mm	ASTM D7415*	>30	24.9	22.6	21.8

OIL ANALYSIS REPORT

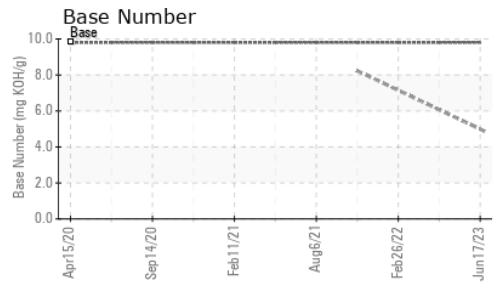
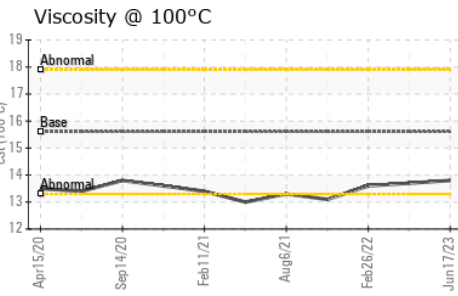
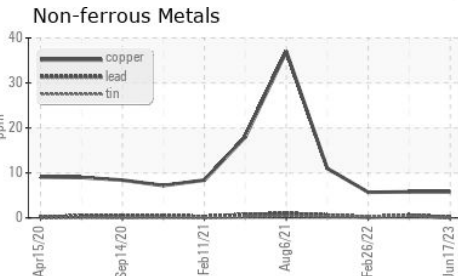
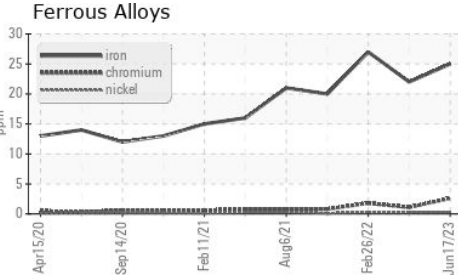


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs./1mm	ASTM D7414*	>25	21.1	16.9	16.9
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	4.99	---	---

VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	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	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	104	100	100
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.8	13.7	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	139	133	137	136

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0061467 **Received** : 05 Jul 2023
Lab Number : **02567952** **Diagnosed** : 06 Jul 2023
Unique Number : 5604998 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: Glycol, KV40, VI)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.