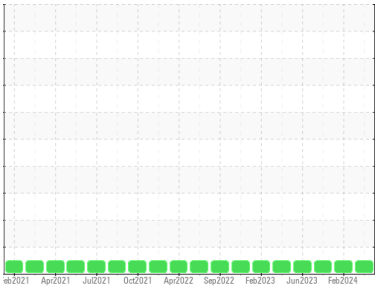
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
DR188
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (38 LTR)

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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0078487**	PC0078298	PC0078518
Sample Date		Client Info		**11 Mar 2024**	09 Feb 2024	14 Aug 2023
Machine Age	hrs	Client Info		**7904**	7614	6680
Oil Age	hrs	Client Info		**0**	0	250
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		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 METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**5**	6	8
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	<1
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**2**	2	2
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>330	**1**	2	2
Tin	ppm	ASTM D5185(m)	>15	**0**	0	<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	history1	history2
Boron	ppm	ASTM D5185(m)	65	**32**	39	27
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	65	**52**	57	57
Manganese	ppm	ASTM D5185(m)	0	**0**	0	<1
Magnesium	ppm	ASTM D5185(m)	1160	**1047**	1098	1120
Calcium	ppm	ASTM D5185(m)	820	**802**	810	836
Phosphorus	ppm	ASTM D5185(m)	1160	**964**	1010	1032
Zinc	ppm	ASTM D5185(m)	1260	**1094**	1170	1180
Sulfur	ppm	ASTM D5185(m)	3000	**2795**	2949	2753
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**3**	3	3
Sodium	ppm	ASTM D5185(m)		**3**	4	4
Potassium	ppm	ASTM D5185(m)	>20	**1**	2	3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**8.2**	8.5	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**19.5**	20.2	21.2

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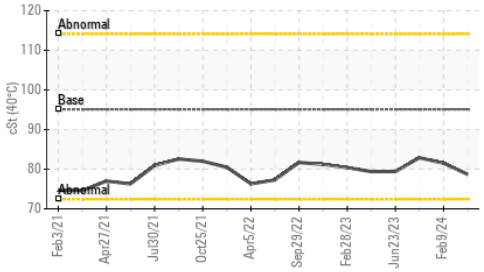
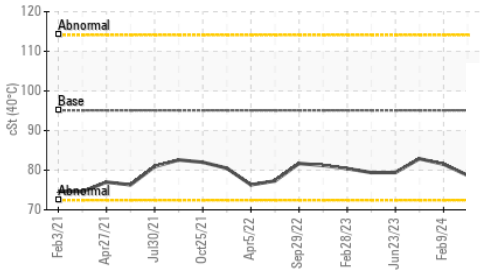
Viscosity @ 40°C



Viscosity @ 40°C



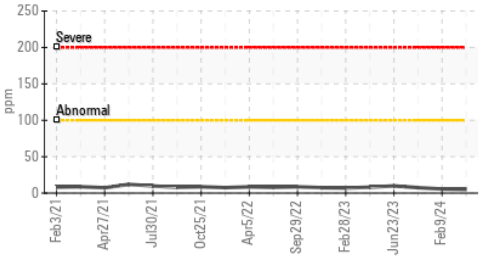
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**17.5**	18.3	17.9

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

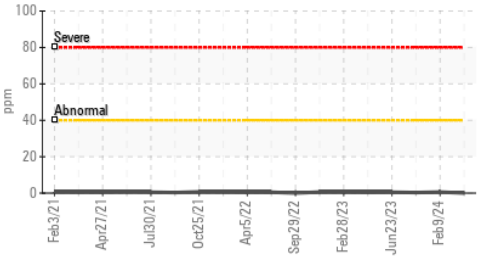
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	**78.7**	81.5	82.9
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	**13.2**	13.3	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	169	**170**	165	169

GRAPHS

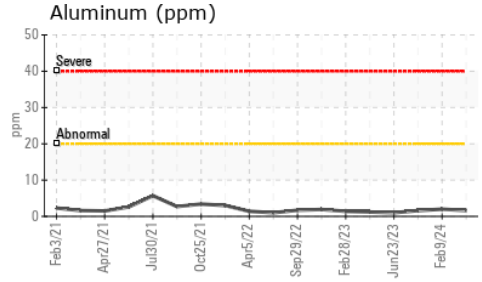
Iron (ppm)



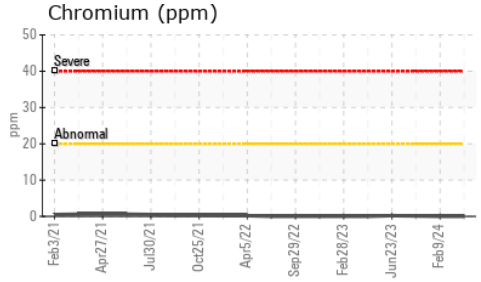
Lead (ppm)



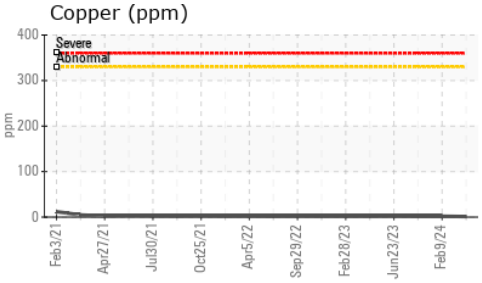
Aluminum (ppm)



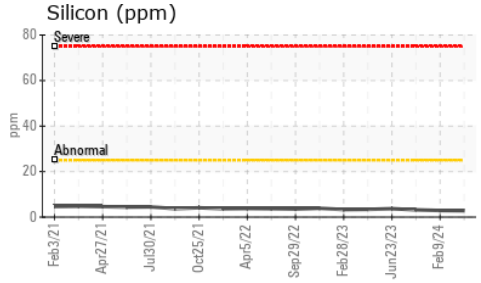
Chromium (ppm)



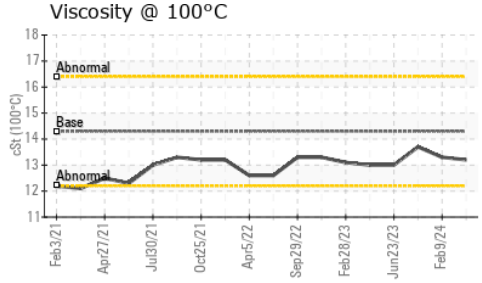
Copper (ppm)



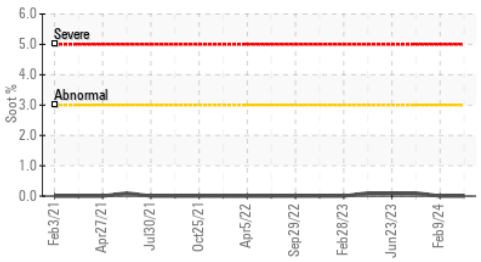
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078487
Lab Number : 02622637
Unique Number : 5747756
Test Package : MOB 1 (Additional Tests: KV40, VI)

Received : 18 Mar 2024
Tested : 18 Mar 2024
Diagnosed : 18 Mar 2024 - Wes Davis

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.

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