



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**HL0717 Emergency Generator**  
Component  
**Genset**  
Fluid  
**PETRO CANADA DURON HP 15W40 (227 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0929748</b>	WC0709124	WC0616911
Sample Date		Client Info		<b>30 May 2024</b>	21 Mar 2023	24 Apr 2022
Machine Age	hrs	Client Info		<b>751</b>	741	737
Oil Age	hrs	Client Info		<b>0</b>	90	0
Filter Age	hrs	Client Info		<b>0</b>	90	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Not Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	MARGINAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>12	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>17	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>70	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

There is no indication of any contamination in the oil.

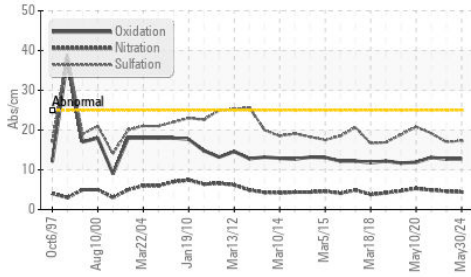
Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	▲ 2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>4.4</b>	4.6	4.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>17.3</b>	17.0	19.2
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

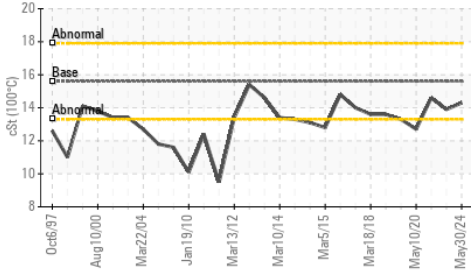
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	1
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	2	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	58	56
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>926</b>	958	942
Calcium	ppm	ASTM D5185(m)	1070	<b>986</b>	1060	1005
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1003</b>	1071	1059
Zinc	ppm	ASTM D5185(m)	1270	<b>1107</b>	1153	1164
Sulfur	ppm	ASTM D5185(m)	2060	<b>2545</b>	2667	2666
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>12.7</b>	12.7	13.1
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	<b>105</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>14.3</b>	13.9	14.6
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>139</b>	---	---

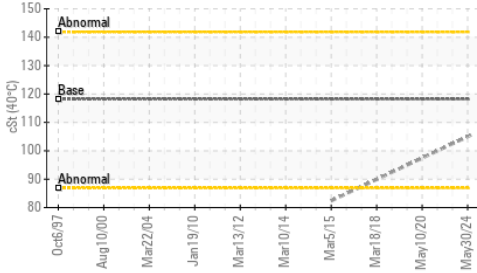
FT-IR (Direct Trend)



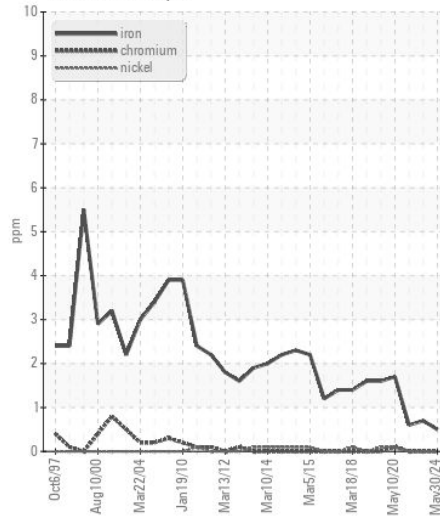
Viscosity @ 100°C



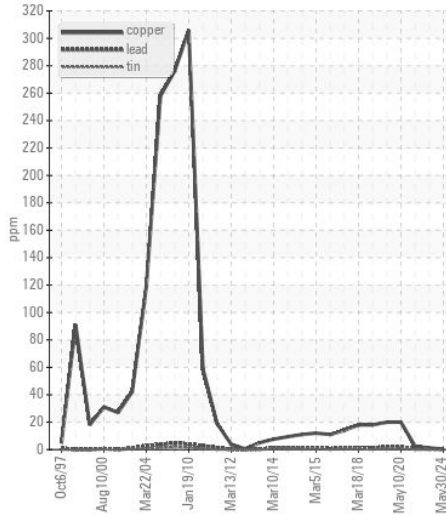
Viscosity @ 40°C



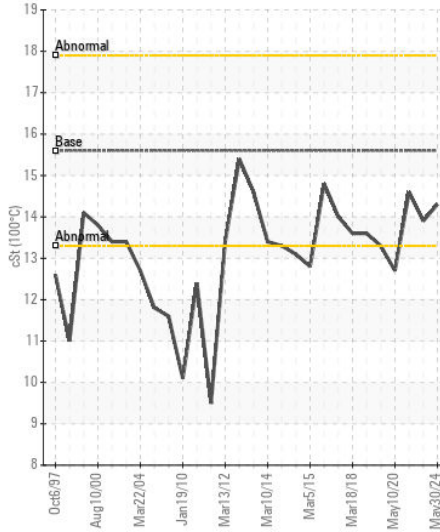
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0929748  
**Lab Number** : 02639995  
**Unique Number** : 5789157  
**Test Package** : MAR 1 ( Additional Tests: KV40, VI )

**Received** : 05 Jun 2024  
**Tested** : 06 Jun 2024  
**Diagnosed** : 06 Jun 2024 - Wes Davis

**CANADIAN COAST GUARD**  
 CCGS HENRY LARSEN, P.O. BOX 5667, 280 SOUTHSIDE RD.  
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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.