



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**Emergency Generator Room**  
Machine Id  
**Emergency Generator (S/N 40601268)**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (30 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0772080</b>	WC0772077	WC0700687
Sample Date		Client Info		<b>22 Sep 2023</b>	25 Jul 2023	20 May 2023
Machine Age	hrs	Client Info		<b>1789</b>	1685	1607
Oil Age	hrs	Client Info		<b>0</b>	15	0
Filter Age	hrs	Client Info		<b>0</b>	169	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	MARGINAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	<b>2</b>	2	1
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>230	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

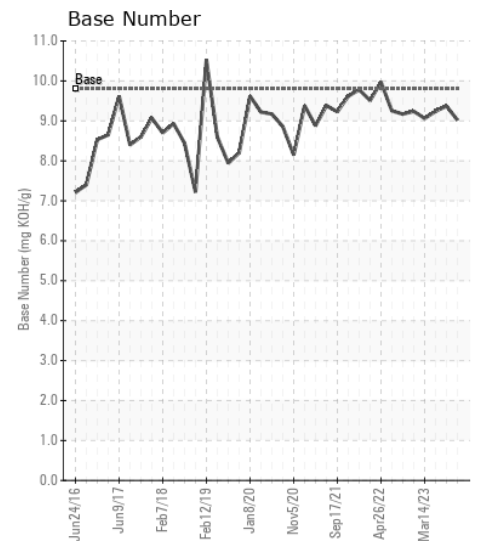
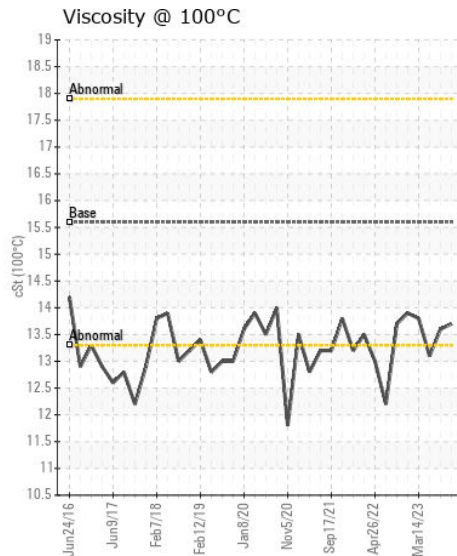
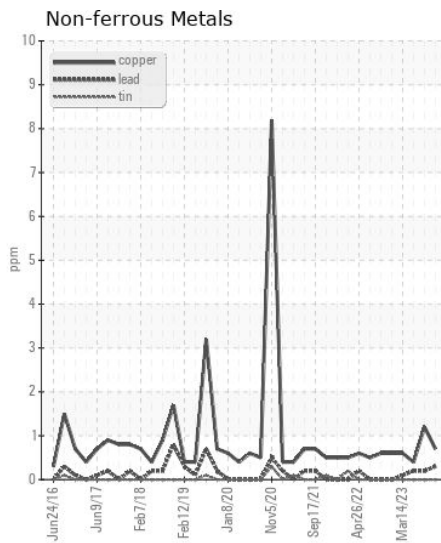
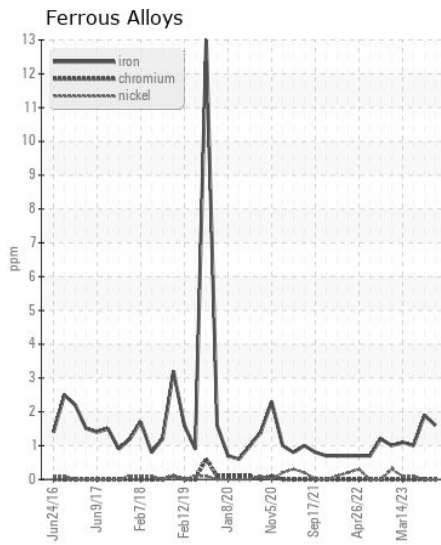
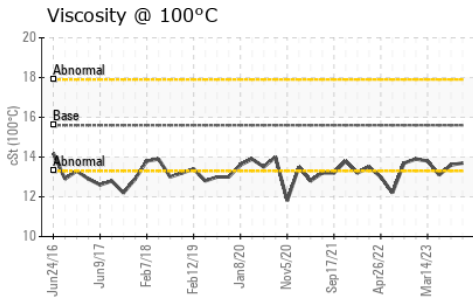
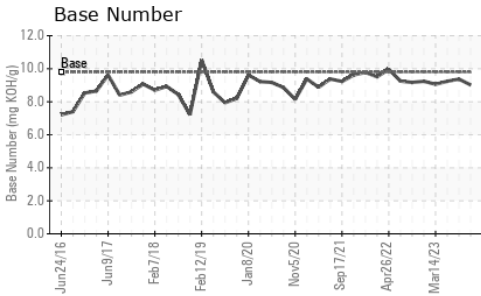
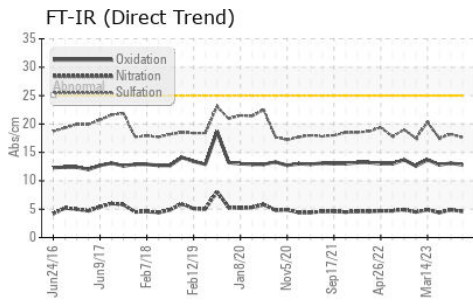
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	▲ 4.8
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>4.6</b>	4.9	4.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>17.6</b>	18.2	17.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	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 D5185(m)		<b>1</b>	1	1
Boron	ppm	ASTM D5185(m)	0	<b>2</b>	2	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>57</b>	56	55
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>926</b>	955	927
Calcium	ppm	ASTM D5185(m)	1070	<b>982</b>	979	1030
Phosphorus	ppm	ASTM D5185(m)	1150	<b>963</b>	1055	1045
Zinc	ppm	ASTM D5185(m)	1270	<b>1108</b>	1141	1128
Sulfur	ppm	ASTM D5185(m)	2060	<b>2466</b>	2565	2614
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>12.8</b>	13.1	12.8
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>9.02</b>	9.37	9.24
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>13.7</b>	13.6	13.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0772080  
**Lab Number** : 02585144  
**Unique Number** : 5646209  
**Test Package** : MAR 2

**Received** : 26 Sep 2023  
**Tested** : 26 Sep 2023  
**Diagnosed** : 26 Sep 2023 - Wes Davis

**CANADIAN COAST GUARD**  
 CCGS GRIFFON, PO BOX 1000, 401 KING ST.W  
 Prescott, ON  
 CA K6V 5T3  
 Contact: Laurie Bosley  
 Laurie.Bosley@dfo-mpo.gc.ca

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.

F: (519)383-1994