



# OIL ANALYSIS REPORT

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

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>WC0772077</b>	WC0700687	WC0772114
Sample Date		Client Info		<b>25 Jul 2023</b>	20 May 2023	14 Mar 2023
Machine Age	hrs	Client Info		<b>1685</b>	1607	1601
Oil Age	hrs	Client Info		<b>15</b>	0	13
Filter Age	hrs	Client Info		<b>169</b>	0	84
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>	MARGINAL	MARGINAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	<b>2</b>	1	1
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</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>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

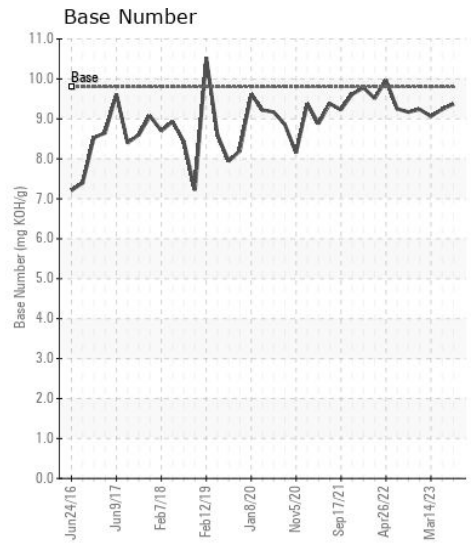
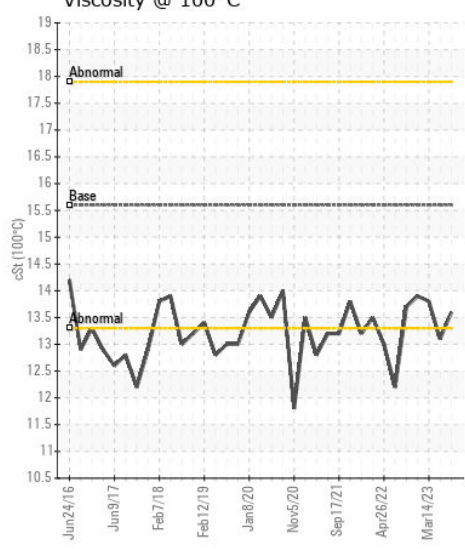
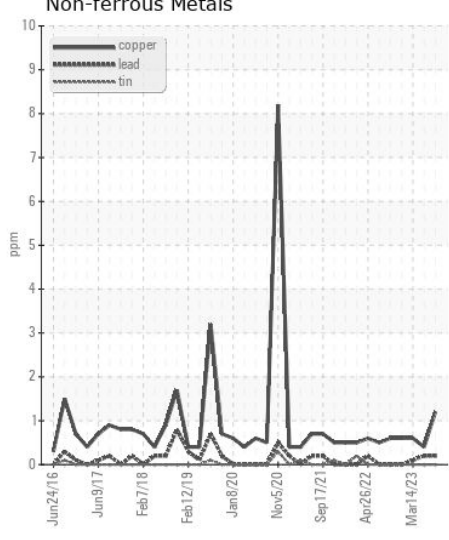
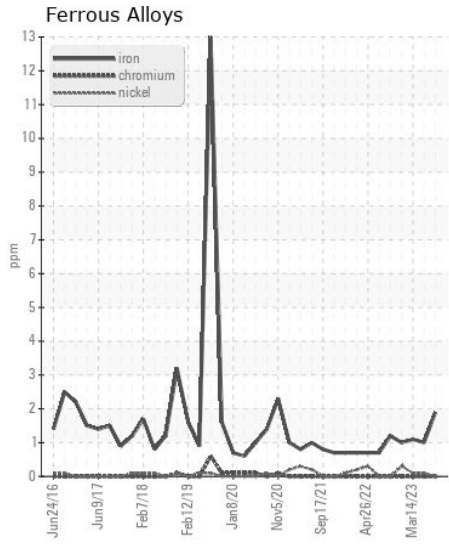
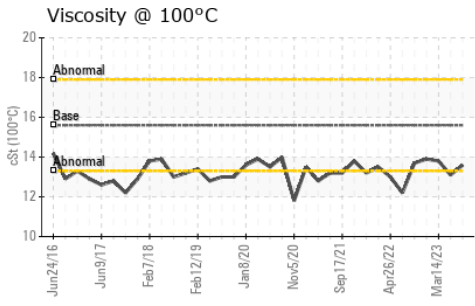
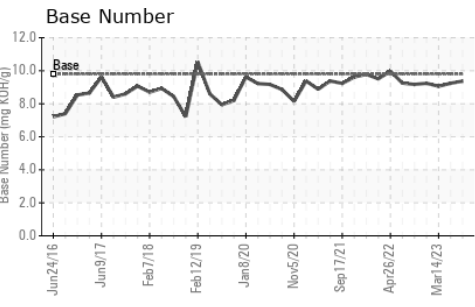
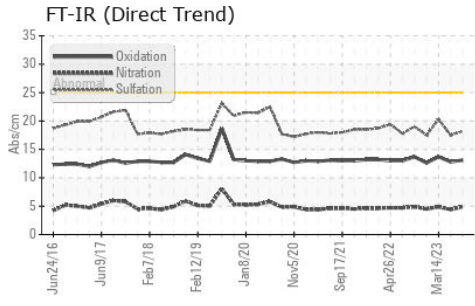
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	▲ 4.8	▲ 3.1
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>4.9</b>	4.4	4.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.2</b>	17.5	20.3
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>	1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	55	55
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>955</b>	927	934
Calcium	ppm	ASTM D5185(m)	1070	<b>979</b>	1030	1043
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1055</b>	1045	1065
Zinc	ppm	ASTM D5185(m)	1270	<b>1141</b>	1128	1121
Sulfur	ppm	ASTM D5185(m)	2060	<b>2565</b>	2614	2606
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.1</b>	12.8	13.7
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>9.37</b>	9.24	9.06
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>13.6</b>	13.1	13.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0772077  
**Lab Number** : 02573631  
**Unique Number** : 5618682  
**Test Package** : MAR 2

**CANADIAN COAST GUARD**  
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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.