



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
414 WILLOWDALE
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0910639	WC0794973	WC0647809
Sample Date		Client Info		02 Apr 2024	04 Apr 2023	01 Apr 2022
Machine Age	hrs	Client Info		26197	102	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	6	2	16
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	2	8
Lead	ppm	ASTM D5185(m)	>40	<1	<1	3
Copper	ppm	ASTM D5185(m)	>330	6	2	15
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

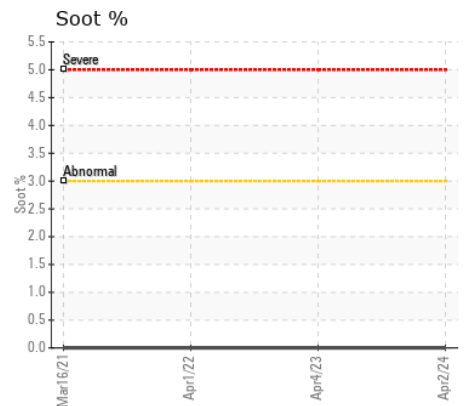
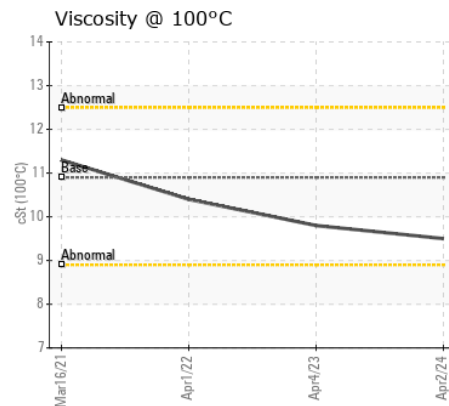
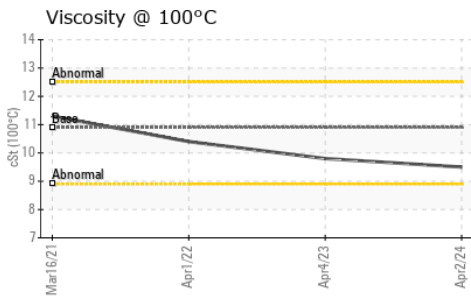
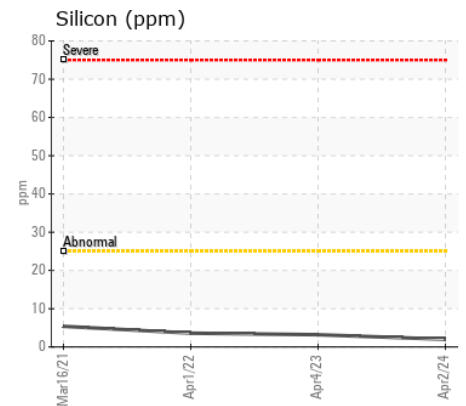
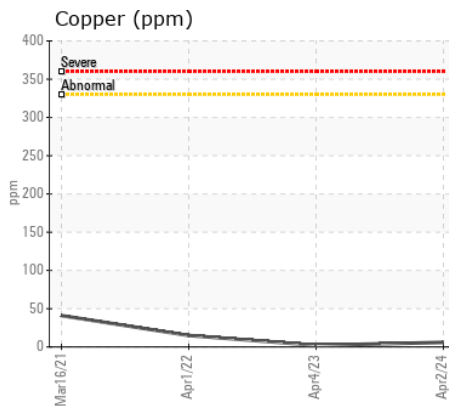
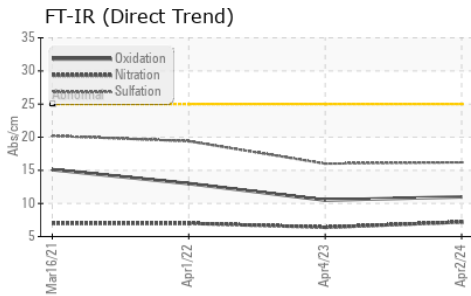
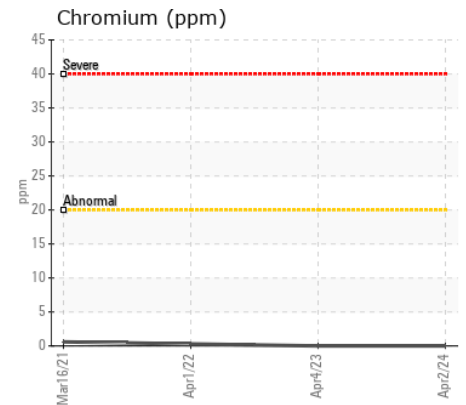
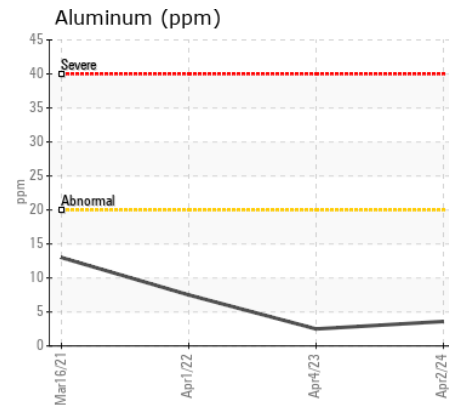
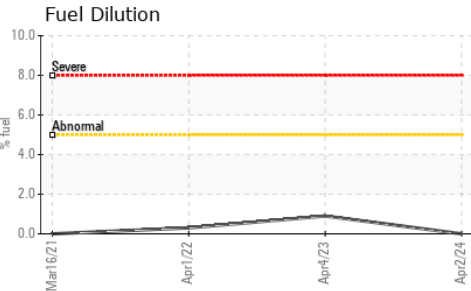
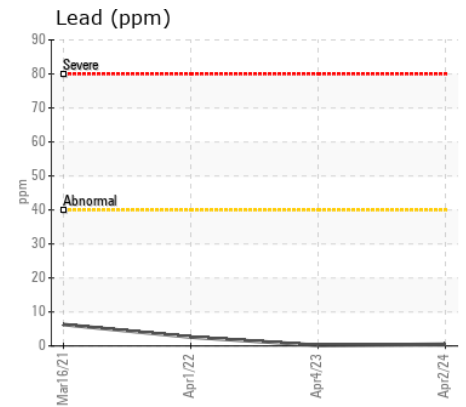
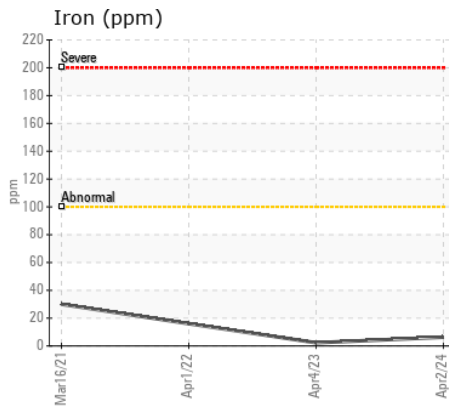
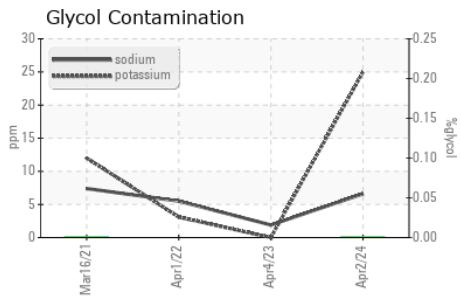
Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	25	0	3
Fuel	%	ASTM D7593*	>5	0.0	0.9	0.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.2	6.4	7.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	16.2	16.0	19.4
Silt	scalar	Visual*	NONE	VLITE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		7	2	6
Boron	ppm	ASTM D5185(m)	250	57	55	66
Barium	ppm	ASTM D5185(m)	10	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	93	77	68
Manganese	ppm	ASTM D5185(m)		<1	<1	2
Magnesium	ppm	ASTM D5185(m)	450	621	541	687
Calcium	ppm	ASTM D5185(m)	3000	788	754	957
Phosphorus	ppm	ASTM D5185(m)	1150	608	588	681
Zinc	ppm	ASTM D5185(m)	1350	691	629	787
Sulfur	ppm	ASTM D5185(m)	4250	1642	1584	1782
Oxidation	Abs/.1mm	ASTM D7414*	>25	11.0	10.5	13.0
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	9.5	▲ 9.8	▲ 10.4



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0910639
Lab Number : 02633043
Unique Number : 5774196
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel, Visual)

Received : 03 May 2024
Tested : 06 May 2024
Diagnosed : 06 May 2024 - Kevin Marson

NORTHERN GENERATOR CO. LTD.
 80 ASHBRIDGE CIRCLE., UNIT #1 & 2
 WOODBRIDGE, ON
 CA L4L 3R5

Contact: Selome Afework
 selome@northerngenerator.com

T: (905)264-9744
 F: (905)264-9714

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.