

#### WEAR NORMAL CONTAMINATION **ABNORMAL** FLUID CONDITION NORMAL

## Machine Id **GM DIESEL** Component **Diesel Engine** SHELL CAPRINUS XR 40 (1764 LTR)

### RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

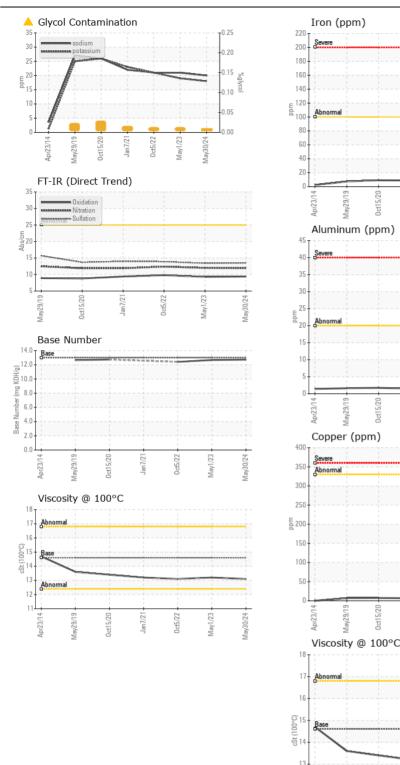
# **CONTAMINATION**

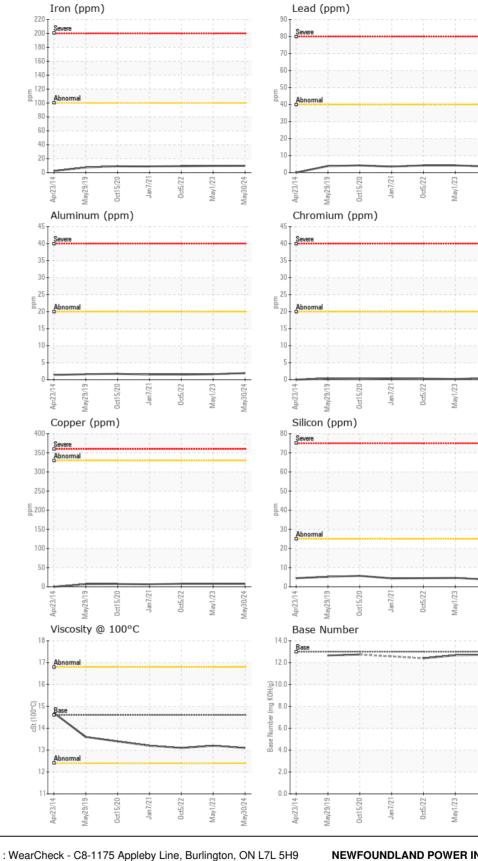
Test for glycol is positive. There is a light concentration of glycol present in the oil.

	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0706122	WC0455684	WC0328027
	Sample Date		Client Info		30 May 2024	01 May 2023	05 Oct 2022
	Machine Age	days	Client Info		0	0	0
	Oil Age	days	Client Info		0	0	0
	Filter Age	days	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				ABNORMAL	ABNORMAL	ABNORMAL
	Iron	ppm	ASTM D5185(m)	>100	10	10	9
	Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
	Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
	Titanium	ppm	ASTM D5185(m)		0	0	<1
	Silver	ppm	ASTM D5185(m)	>3	<1	<1	0
	Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
	Lead	ppm	ASTM D5185(m)	>40	4	4	4
	Copper	ppm	ASTM D5185(m)	>330	8	8	8
	Tin	ppm	ASTM D5185(m)	>15	2	2	2
	Vanadium	ppm	ASTM D5185(m)		0	0	0
	Ciliana			05	<u>,</u>		4
	Silicon	ppm	ASTM D5185(m)	>25	4	5	4
	Potassium	ppm	ASTM D5185(m)	>20	▲ 20	▲ 21	▲ 21
	Fuel		WC Method	>5	<1.0	<1.0	<1.0
	Water	0/	WC Method	>0.2	NEG	NEG	NEG
	Glycol	%	ASTM D7922*	0	▲ 0.01 0	▲ 0.012	0.012
	Soot %	%	ASTM D7844*	>3	0	0	0
	Nitration	Abs/cm	ASTM D7624*	>20	11.9	12.0	12.4
	Sulfation	Abs/.1mm	ASTM D7415*	>30	13.5	13.4	13.9
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
	Sodium	ppm	ASTM D5185(m)		18	19	21
	Boron	ppm	ASTM D5185(m)		<1	<1	0
	Barium	ppm	ASTM D5185(m)		<1	<1	0
	Molybdenum	ppm	ASTM D5185(m)		1	<1	1
	Manganese	ppm	ASTM D5185(m)		<1	0	<1
	Magnesium	ppm	ASTM D5185(m)		26	24	25
	Calcium	ppm	ASTM D5185(m)		4257	4383	4616
	Phosphorus	ppm	ASTM D5185(m)		3	3	2
	Zinc	ppm	ASTM D5185(m)		5	5	4
	Sulfur	ppm	ASTM D5185(m)		2546	2804	3073
	Oxidation	Abs/.1mm	ASTM D7414*	>25	9.4	9.3	9.8
	Base Number (BN)	mg KOH/g	ASTM D2896*	13	12.73	12.67	12.40
	Visc @ 100°C	cSt	ASTM D7279(m)	14.6	13.1	13.2	13.1

# **FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.





NEWFOUNDLAND POWER INC.

/av/30/24

av20/74

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50 DUFFY PLACE, PO BOX 8910 ST. JOHNS, NL CA A1B 3P6 Contact: Paul Martin pmartin@newfoundlandpower.com Т: F: (709)737-2926

Laboratory Test Package : MOB 2 (Additional Tests: Glycol) 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.

Received

Diagnosed

Tested

: 19 Jun 2024

: 20 Jun 2024

: 20 Jun 2024 - Wes Davis

Apr23/1

: WC0706122

: 02642793

Report Id: NEWSTJ [WCAMIS] 02642793 (Generated: 06/20/2024 17:26:22) Rev: 1

CALA

ISO 17025:2017 Accredited

Laboratory

Sample No.

Lab Number

Unique Number : 5800332

Submitted By: Barry Furlong Page 2 of 2