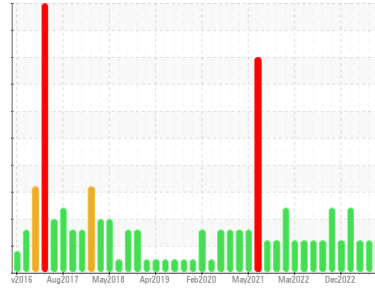




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
NOVA BUS 163

Component
Rear Diesel Engine

Fluid
ESSO XD-3 EXTRA 15W40 (24 LTR)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0816368	WC0816514	WC0730851
Sample Date	Client Info		20 Sep 2023	21 Jul 2023	12 Apr 2023
Machine Age	kms	Client Info	0	0	0
Oil Age	kms	Client Info	9436	9337	9328
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	0.0	0.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >75	38	38	24
Chromium	ppm	ASTM D5185(m) >5	<1	1	<1
Nickel	ppm	ASTM D5185(m) >4	<1	0	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	<1	<1	0
Aluminum	ppm	ASTM D5185(m) >15	2	2	2
Lead	ppm	ASTM D5185(m) >25	4	2	<1
Copper	ppm	ASTM D5185(m) >100	3	4	4
Tin	ppm	ASTM D5185(m) >4	0	0	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	42	11	50
Barium	ppm	ASTM D5185(m)	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	8	50	31
Manganese	ppm	ASTM D5185(m)	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	117	710	47
Calcium	ppm	ASTM D5185(m) 3780	1900	1200	2145
Phosphorus	ppm	ASTM D5185(m) 1370	834	945	963
Zinc	ppm	ASTM D5185(m) 1500	1042	1079	1070
Sulfur	ppm	ASTM D5185(m) 3800	2511	2325	2768
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	5	6	5
Sodium	ppm	ASTM D5185(m) >192	13	28	78
Potassium	ppm	ASTM D5185(m) >20	6	6	18
Fuel	%	ASTM D7593* >3.0	▲ 5.9	▲ 4.8	▲ 7.3

INFRA-RED

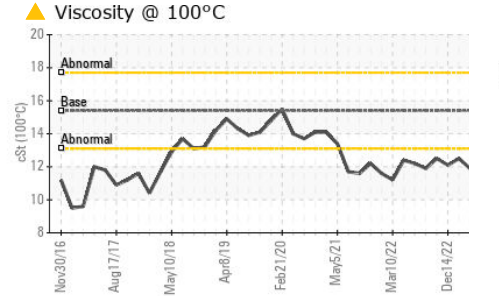
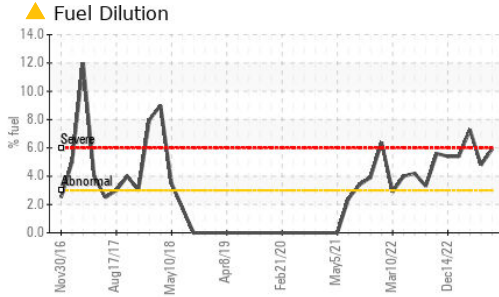
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.6	0.6	0.6
Nitration	Abs/cm	ASTM D7624* >20	12.6	11.5	11.2
Sulfation	Abs/.1mm	ASTM D7415* >30	37.0	31.1	25.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	47.1	36.5	22.5



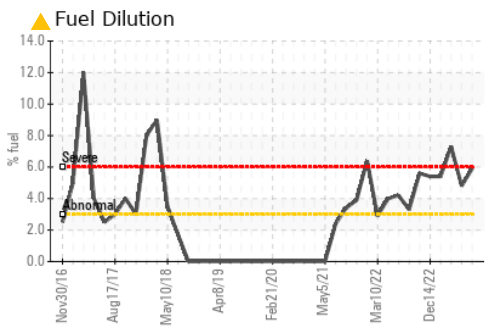
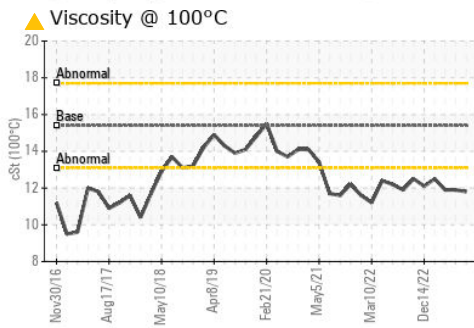
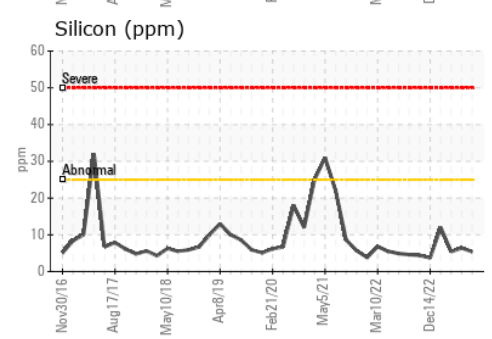
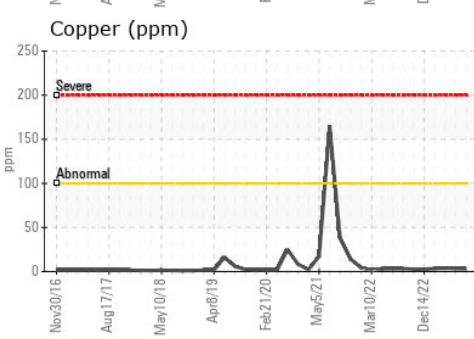
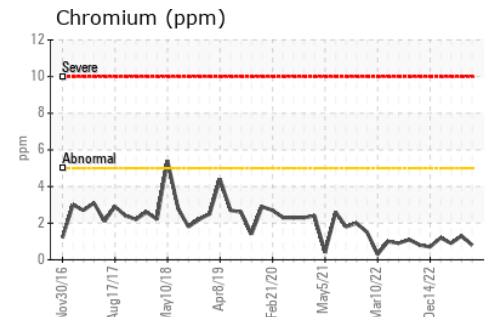
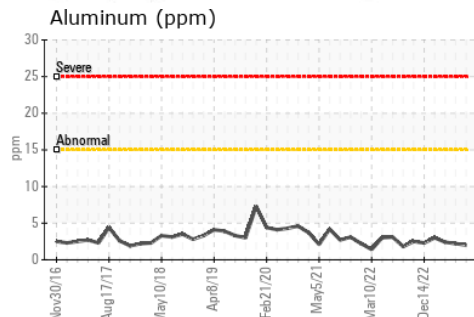
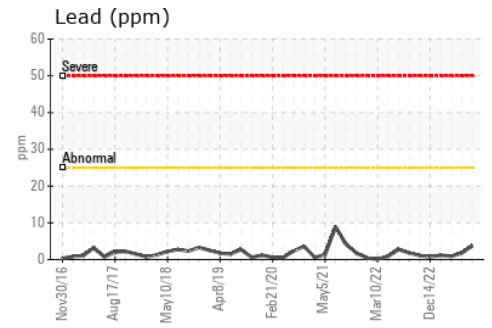
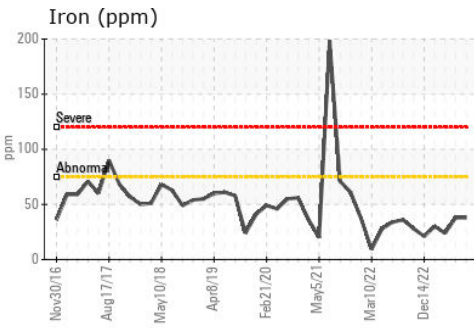
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.8	▲ 11.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0816368 **Received** : 04 Oct 2023
Lab Number : 02586693 **Diagnosed** : 05 Oct 2023
Unique Number : 5655759 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel)

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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.