



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
NORTHERN LIGHTS M844LW3G 8442-59312

Component
Diesel Engine

Fluid
BREAK IN (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR06215261	---	---
Sample Date		Client Info		24 Mar 2024	---	---
Machine Age	hrs	Client Info		100	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	36	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	12	---	---
Lead	ppm	ASTM D5185m	>40	4	---	---
Copper	ppm	ASTM D5185m	>330	12	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

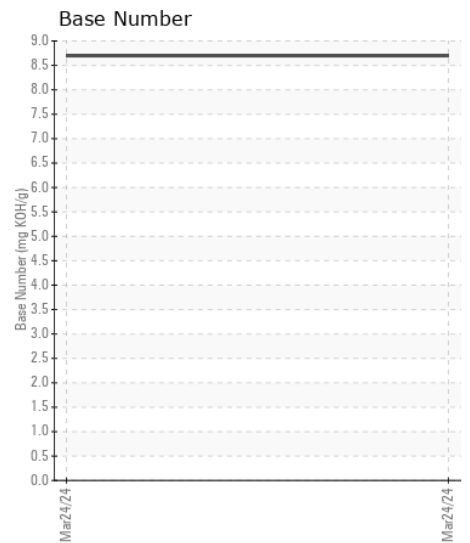
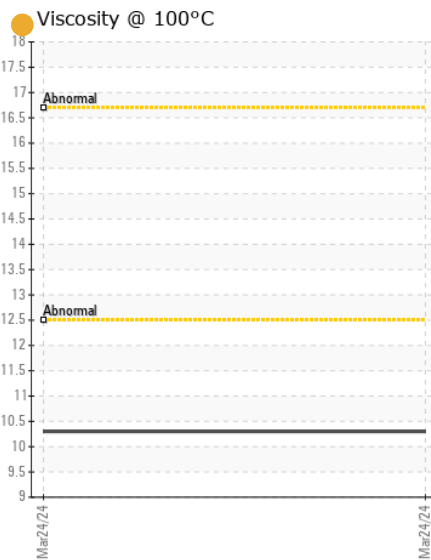
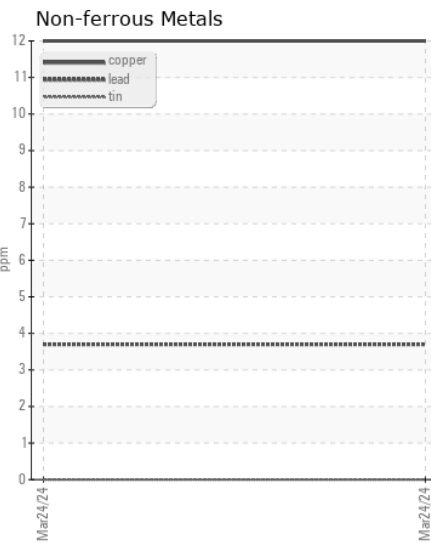
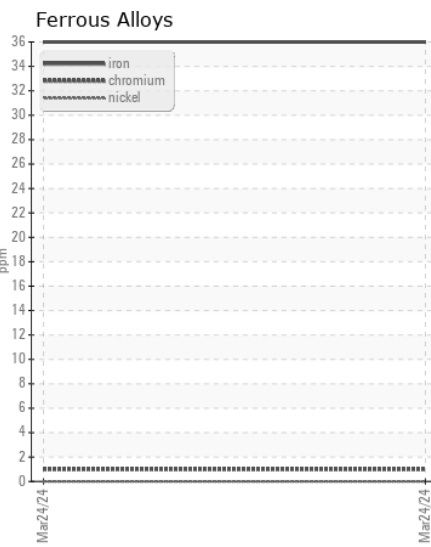
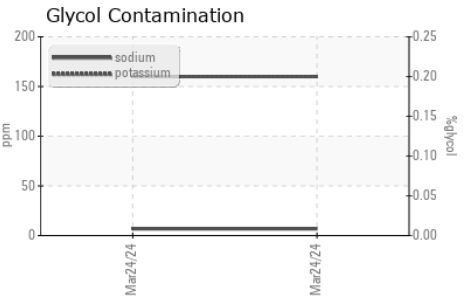
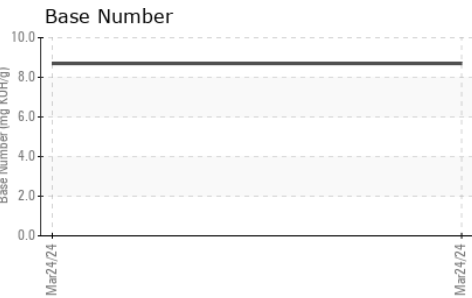
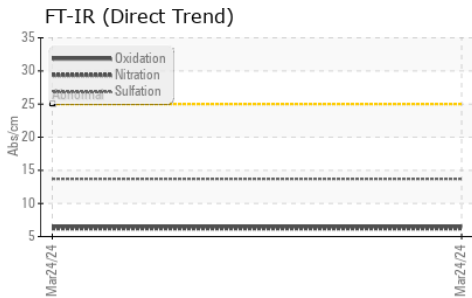
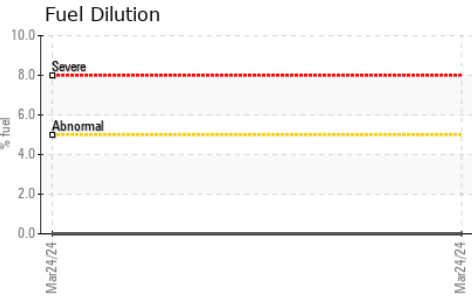
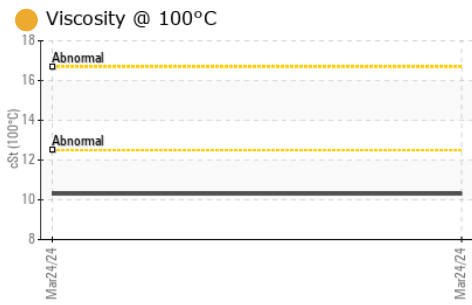
Sodium and/or potassium levels are high. Fuel content negligible. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	23	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 160	---	---
Fuel	%	ASTM D3524	>5	0.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	13.7	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

The oil viscosity is lower than normal. Confirm oil type.

Sodium	ppm	ASTM D5185m		7	---	---
Boron	ppm	ASTM D5185m		185	---	---
Barium	ppm	ASTM D5185m		4	---	---
Molybdenum	ppm	ASTM D5185m		165	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		21	---	---
Calcium	ppm	ASTM D5185m		2947	---	---
Phosphorus	ppm	ASTM D5185m		441	---	---
Zinc	ppm	ASTM D5185m		567	---	---
Sulfur	ppm	ASTM D5185m		5773	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	6.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.7	---	---
Visc @ 100°C	cSt	ASTM D445		● 10.3	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR06215261
Lab Number : 06215261
Unique Number : 11088125
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, TBN)

Received : 20 Jun 2024
Tested : 24 Jun 2024
Diagnosed : 24 Jun 2024 - Jonathan Hester

JRE - MANASSAS PARK
 9107 OWENS DRIVE
 MANASSAS PARK, VA
 US 20111

Contact: DON VEST
 dvest@jamesriverequipment.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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