



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	SEVERE



Machine Id
WVTM02BE
Component
Biogas Engine
Fluid
MOBIL Pegasus™ 605 Ultra 40 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0895543	WC0895540	WC0895538
Sample Date		Client Info		22 Apr 2024	19 Apr 2024	15 Apr 2024
Machine Age	hrs	Client Info		45216	45143	45047
Oil Age	hrs	Client Info		284	211	115
Filter Age	hrs	Client Info		284	211	115
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				SEVERE	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>14	2	0	<1
Chromium	ppm	ASTM D5185m	>3	<1	<1	0
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	3	1	2
Lead	ppm	ASTM D5185m	>8	2	0	0
Copper	ppm	ASTM D5185m	>5	<1	0	<1
Tin	ppm	ASTM D5185m	>3	2	2	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

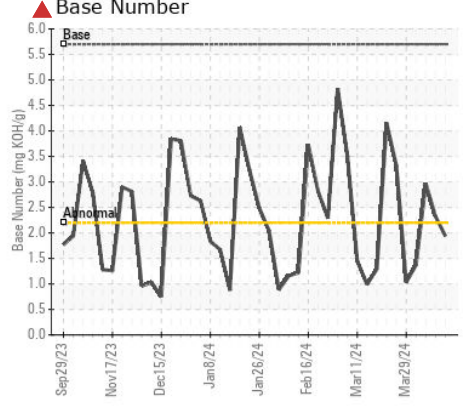
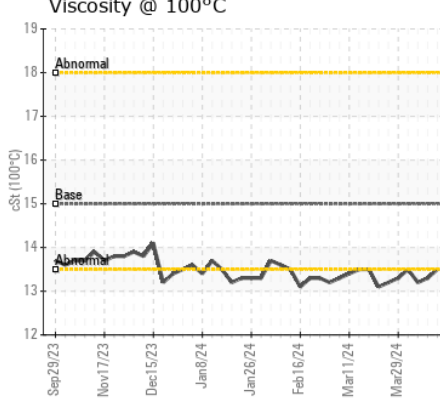
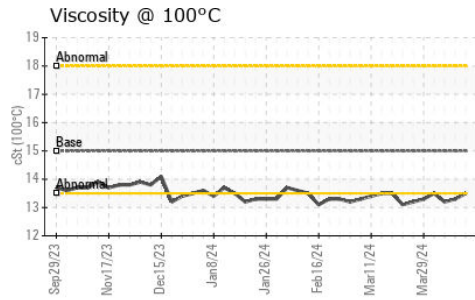
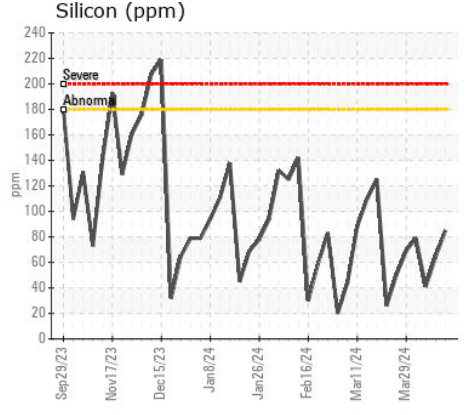
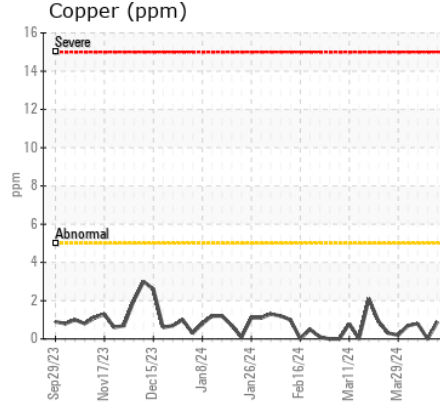
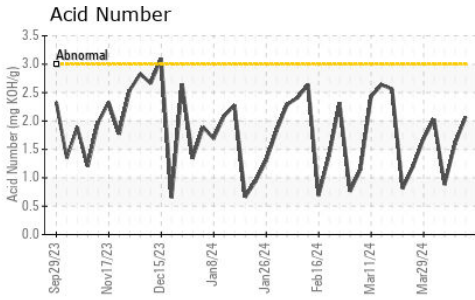
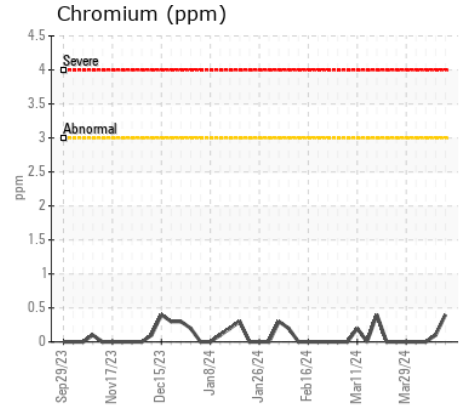
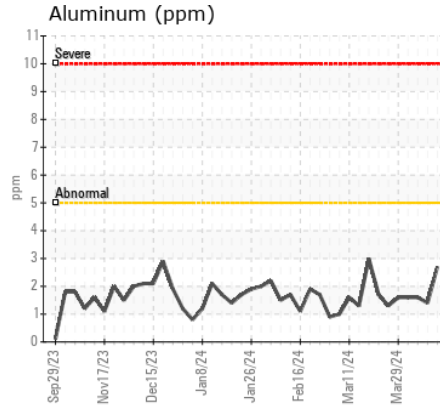
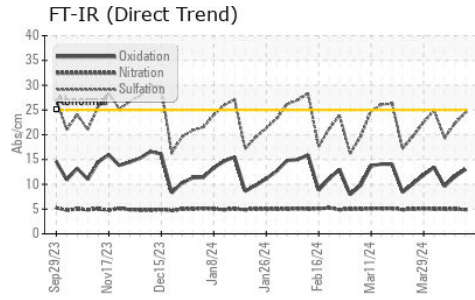
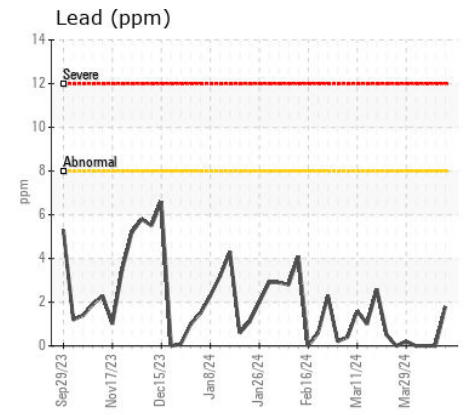
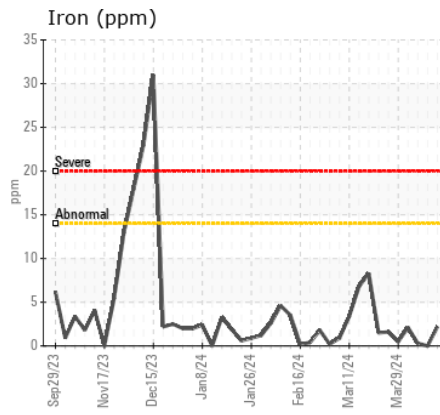
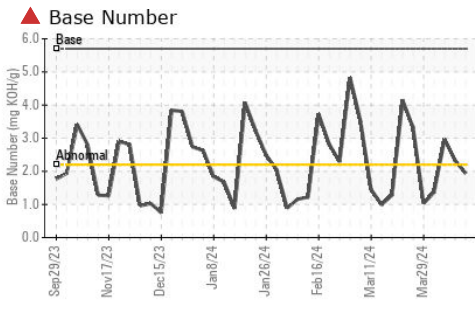
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>180	85	64	41
Potassium	ppm	ASTM D5185m	>20	2	<1	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624		4.9	5.0	5.0
Sulfation	Abs/.1mm	*ASTM D7415		24.5	22.3	19.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	NEG	NEG

FLUID CONDITION

The BN level is low. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m	>20	1	<1	2
Boron	ppm	ASTM D5185m		21	6	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		11	8	11
Calcium	ppm	ASTM D5185m		1740	1733	1636
Phosphorus	ppm	ASTM D5185m		312	273	277
Zinc	ppm	ASTM D5185m		368	316	308
Sulfur	ppm	ASTM D5185m		4377	3888	3396
Oxidation	Abs/.1mm	*ASTM D7414		13.0	11.6	9.6
Acid Number (AN)	mg KOH/g	ASTM D8045		2.07	1.60	0.88
Base Number (BN)	mg KOH/g	ASTM D2896	5.7	▲ 1.94	▲ 2.32	2.97
Visc @ 100°C	cSt	ASTM D445	15	13.5	13.3	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0895543
Lab Number : 06159302
Unique Number : 10994725
Test Package : MOB 2

Received : 24 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 26 Apr 2024 - Don Baldrige

EDL NA Recips-Watervliet
 Watervliet Powerstation, 3563 Hennessey Road
 Watervliet, MI
 US 49098
 Contact: Scott Eastman
 scott.eastman@edlenergy.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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