



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	SEVERE



Machine Id
WVTM01BE
Component
Biogas Engine
Fluid
MOBIL Pegasus™ 605 Ultra 40 (--- GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0895536	WC0895562	WC0895555
Sample Date		Client Info		11 Apr 2024	02 Apr 2024	29 Mar 2024
Machine Age	hrs	Client Info		115404	115189	115094
Oil Age	hrs	Client Info		572	357	262
Filter Age	hrs	Client Info		572	357	262
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>14	5	4	3
Chromium	ppm	ASTM D5185m	>3	0	0	0
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	2	2	2
Lead	ppm	ASTM D5185m	>8	<1	0	0
Copper	ppm	ASTM D5185m	>5	1	1	<1
Tin	ppm	ASTM D5185m	>3	2	2	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

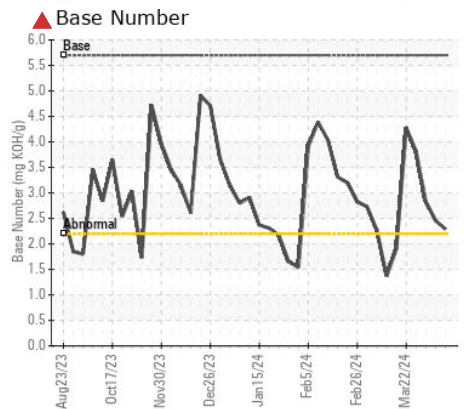
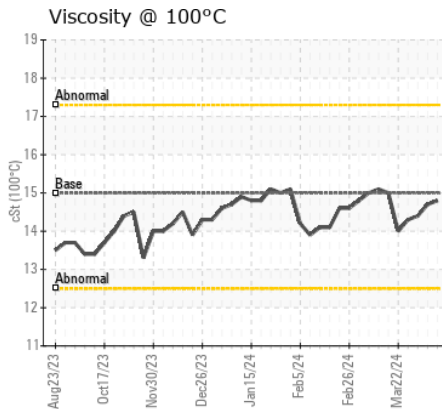
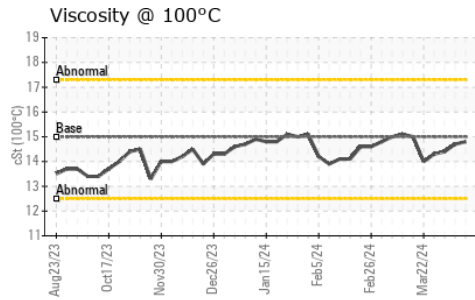
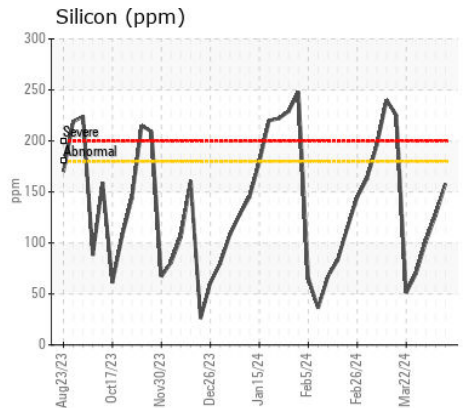
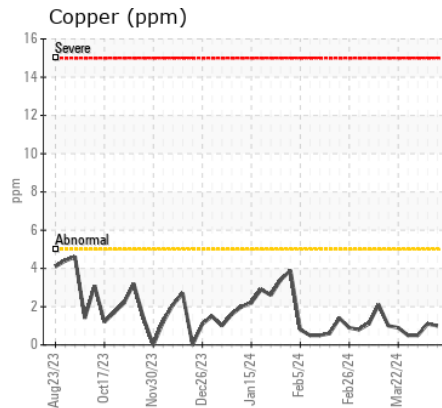
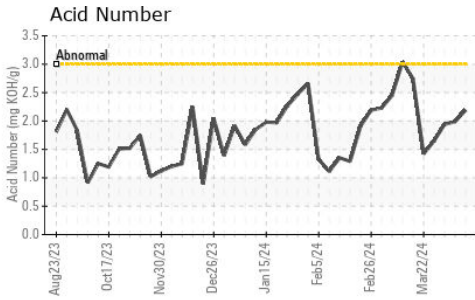
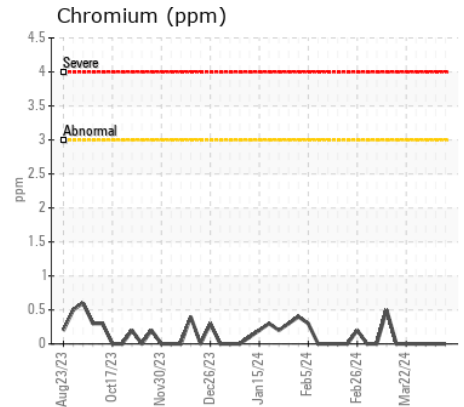
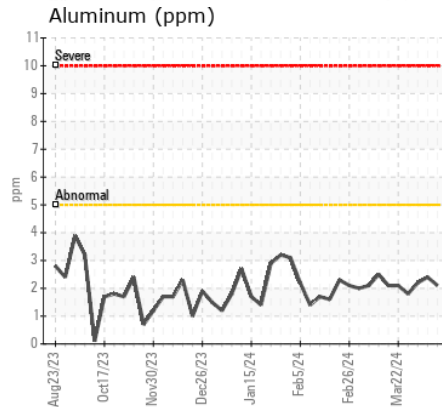
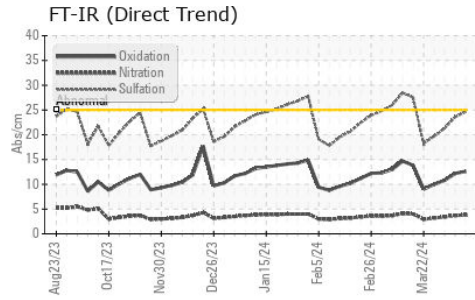
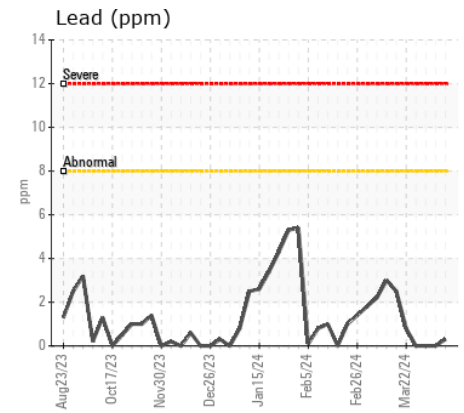
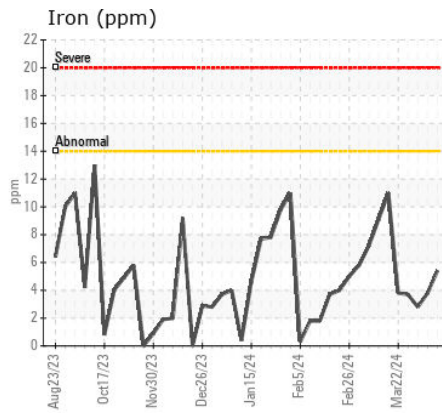
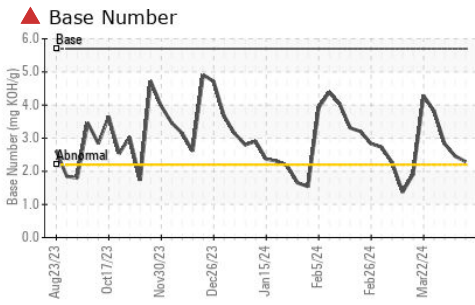
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>180	158	127	101
Potassium	ppm	ASTM D5185m	>20	0	0	0
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		3.8	3.7	3.4
Sulfation	Abs/.1mm	*ASTM D7415		24.6	23.6	21.3
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. The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m	>20	2	1	1
Boron	ppm	ASTM D5185m		62	44	66
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	2	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		14	16	11
Calcium	ppm	ASTM D5185m		1659	1647	1635
Phosphorus	ppm	ASTM D5185m		369	333	386
Zinc	ppm	ASTM D5185m		503	546	550
Sulfur	ppm	ASTM D5185m		4699	5256	5269
Oxidation	Abs/.1mm	*ASTM D7414		12.6	12.2	10.8
Acid Number (AN)	mg KOH/g	ASTM D8045		2.19	1.99	1.94
Base Number (BN)	mg KOH/g	ASTM D2896	5.7	▲ 2.29	2.46	2.83
Visc @ 100°C	cSt	ASTM D445	15	14.8	14.7	14.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0895536
Lab Number : 06148892
Unique Number : 10978970
Test Package : MOB 2

Received : 15 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 19 Apr 2024 - Jonathan Hester

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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