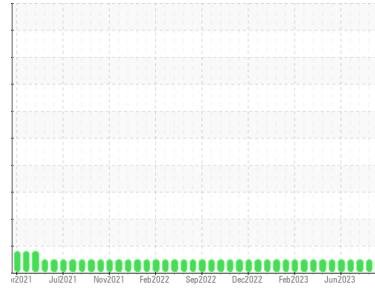




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CHP4-M0116 (S/N 2210062)

Component
Biogas Engine

Fluid
MOBIL PEGASUS 1005 (120 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0747970	WC0747976	WC0747978
Sample Date	Client Info			15 Aug 2023	02 Aug 2023	01 Aug 2023
Machine Age	hrs	Client Info		50051	49778	0
Oil Age	hrs	Client Info		6134	5861	0
Oil Changed	Client Info			Not Chngd	Not Chngd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>4.0	<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>15	10	10	8
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	4	5	5
Lead	ppm	ASTM D5185m	>10	5	5	4
Copper	ppm	ASTM D5185m	>10	2	1	2
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		93	91	108
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	4	4
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		17	16	16
Calcium	ppm	ASTM D5185m		1899	1848	2069
Phosphorus	ppm	ASTM D5185m		318	315	346
Zinc	ppm	ASTM D5185m		444	442	463
Sulfur	ppm	ASTM D5185m		2792	2592	3120

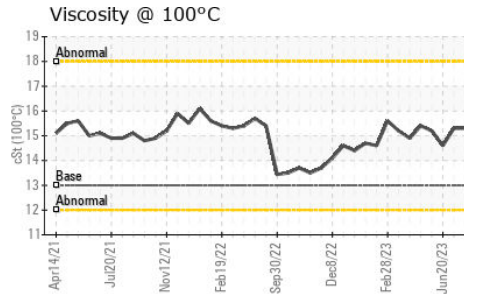
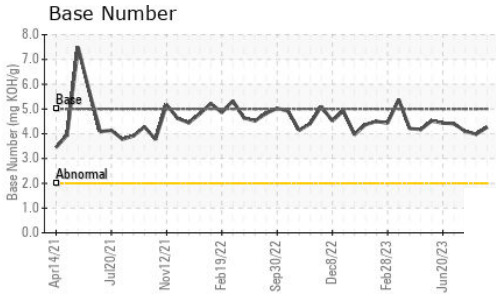
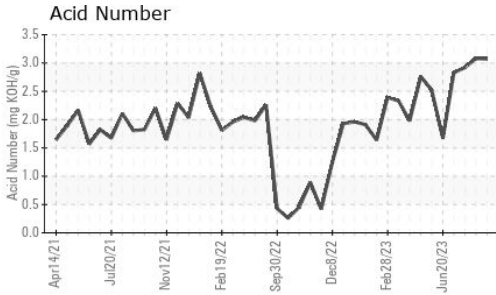
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>300	5	3	2
Sodium	ppm	ASTM D5185m		8	13	15
Potassium	ppm	ASTM D5185m	>20	4	3	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	11.1	11.2	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.2	26.9	26.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	33.5	34.1	33.8
Acid Number (AN)	mg KOH/g	ASTM D8045		3.07	3.08	2.92
Base Number (BN)	mg KOH/g	ASTM D2896	5.0	4.26	3.98	4.10



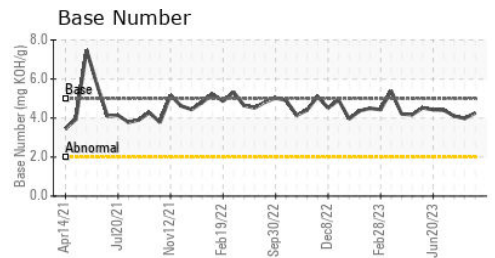
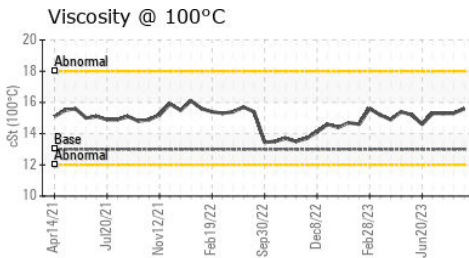
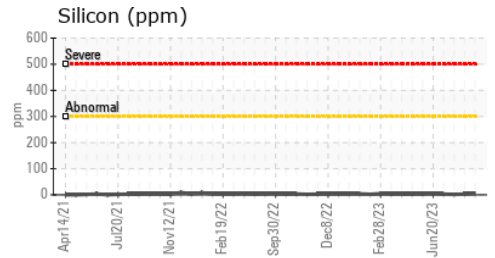
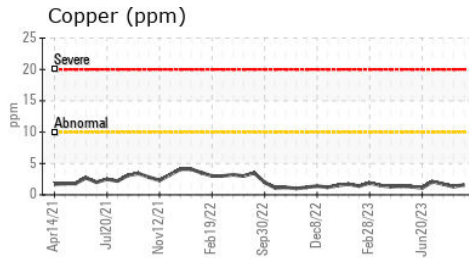
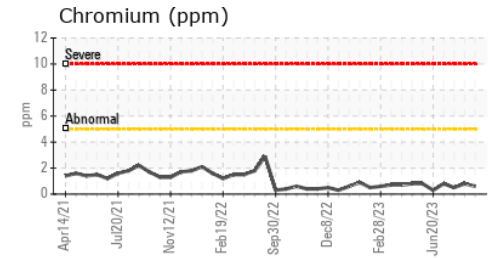
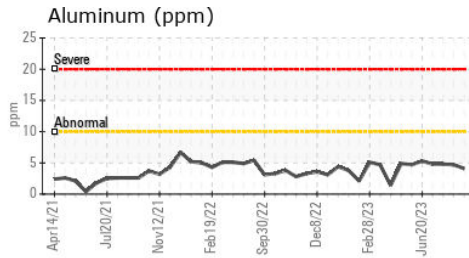
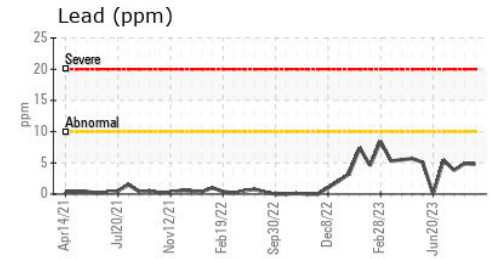
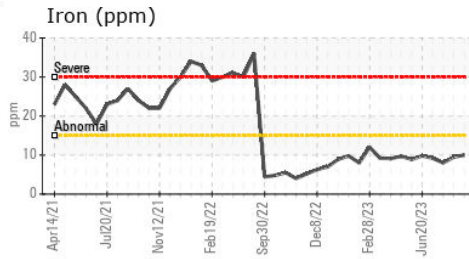
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
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 D445 13	15.6	15.3	15.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0747970 **Received** : 25 Aug 2023
Lab Number : 05934944 **Diagnosed** : 28 Aug 2023
Unique Number : 10620215 **Diagnostician** : Sean Felton
Test Package : MOB 2

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 T:
 F: (330)864-7023

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)