



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JENBACHER E3 - LEE COUNTY
Component
Biogas Engine
Fluid
CONOCO EL MAR LA4 EXD (180 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0896443	WC0896445	WC0597678
Sample Date		Client Info		26 Feb 2024	16 Feb 2024	06 Feb 2024
Machine Age	hrs	Client Info		23959	23746	23546
Oil Age	hrs	Client Info		2753	2540	2340
Filter Age	hrs	Client Info		4536	4323	4123
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	6	5	3
Chromium	ppm	ASTM D5185m	>5	2	1	1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>15	5	3	3
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>15	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	5	5	5
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

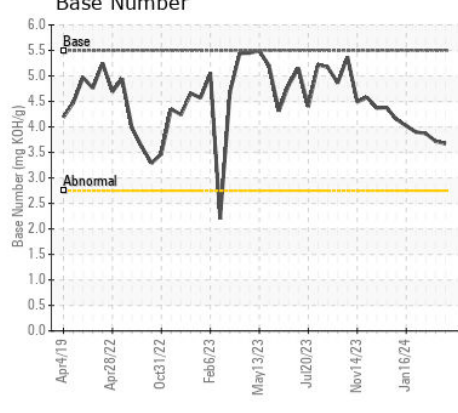
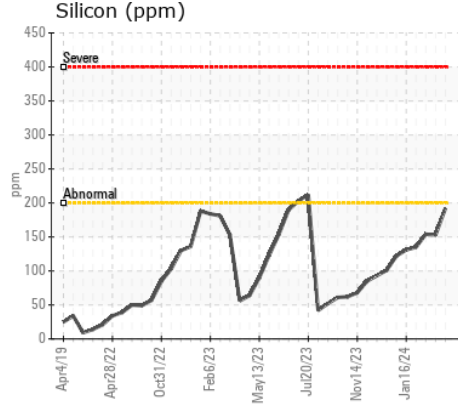
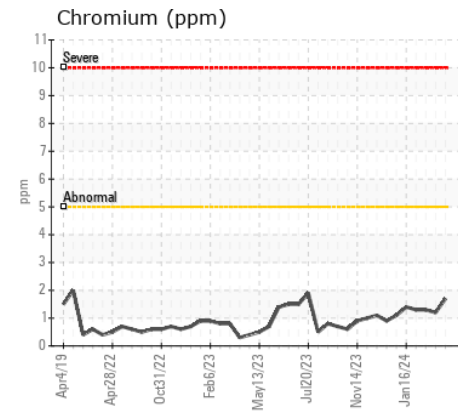
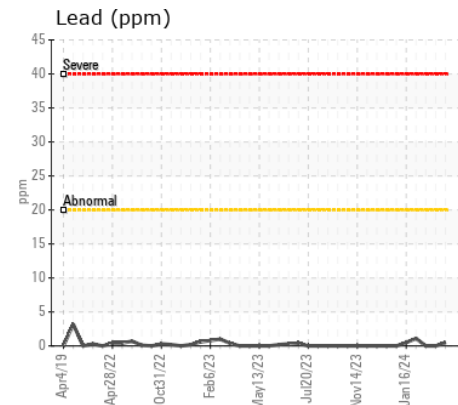
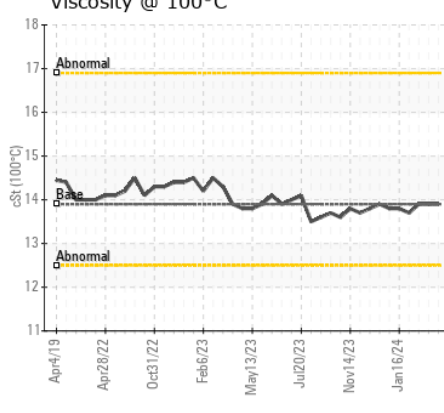
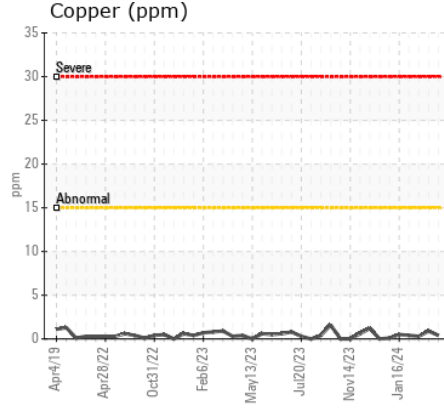
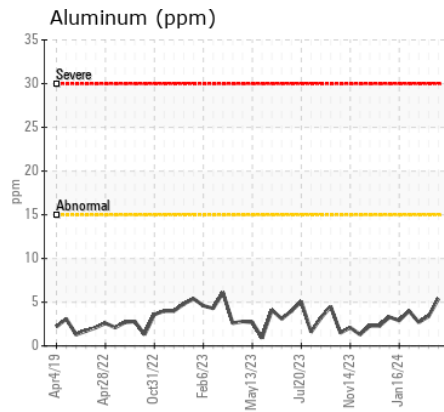
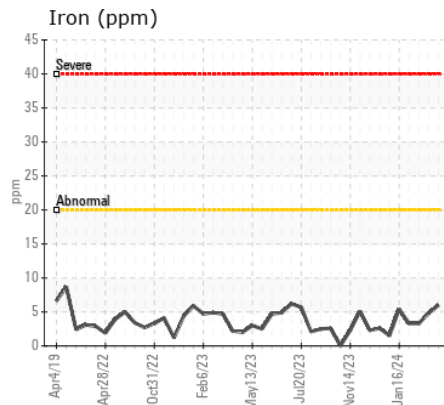
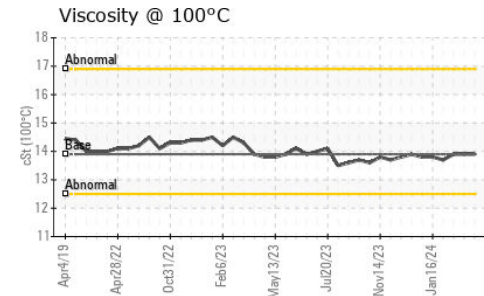
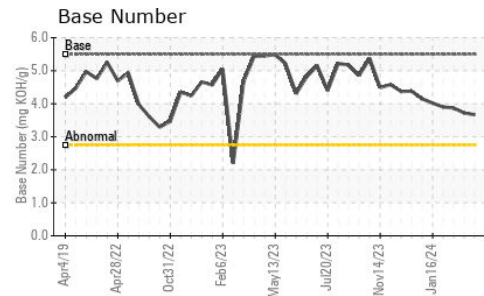
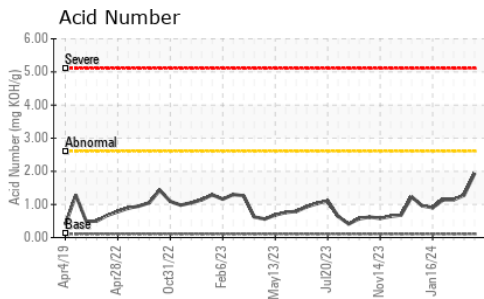
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>200	192	153	154
Potassium	ppm	ASTM D5185m	>20	0	1	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>2	0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	4.8	4.7	4.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.6	18.3
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	>.2	NEG	NEG	NEG

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 suitable for further service.

Sodium	ppm	ASTM D5185m	>20	2	0	0
Boron	ppm	ASTM D5185m		2	0	<1
Barium	ppm	ASTM D5185m		0	10	2
Molybdenum	ppm	ASTM D5185m		2	<1	<1
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		5	6	5
Calcium	ppm	ASTM D5185m	1500	1699	1536	1541
Phosphorus	ppm	ASTM D5185m	280	259	353	299
Zinc	ppm	ASTM D5185m	330	387	360	397
Sulfur	ppm	ASTM D5185m		2964	3617	3081
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.3	11.8	11.7
Acid Number (AN)	mg KOH/g	ASTM D8045	0.11	1.94	1.28	1.14
Base Number (BN)	mg KOH/g	ASTM D2896	5.5	3.67	3.72	3.87
Visc @ 100°C	cSt	ASTM D445	13.9	13.9	13.9	13.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0896443
Lab Number : 06103168
Unique Number : 10901398
Test Package : MOB 2

Received : 28 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 01 Mar 2024 - Sean Felton

SANTEE COOPER / LEE COUNTY LANDFILL
 1435 SUMTER HIGHWAY (HWY 15)
 BISHOPVILLE, SC
 US 29010

Contact: DAVID WINSTEAD
 david.winstead@santeecooper.com; dhwinste@santeecooper.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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