



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
Coopersville CAT 1 CPVM01BE
Component
Biogas Engine
Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (105 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0871562	WC0871589	WC0871500
Sample Date		Client Info		09 Apr 2024	29 Mar 2024	11 Mar 2024
Machine Age	hrs	Client Info		17155	16890	16463
Oil Age	hrs	Client Info		805	540	1
Filter Age	hrs	Client Info		805	540	1
Oil Changed		Client Info		Not Chngd	Not Chngd	Changed
Filter Changed		Client Info		Not Chngd	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>15	0	0	<1
Chromium	ppm	ASTM D5185m	>4	0	0	<1
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>6	2	1	2
Lead	ppm	ASTM D5185m	>9	2	0	<1
Copper	ppm	ASTM D5185m	>6	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	3	3	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

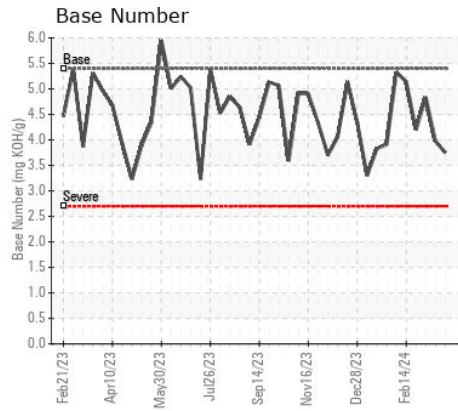
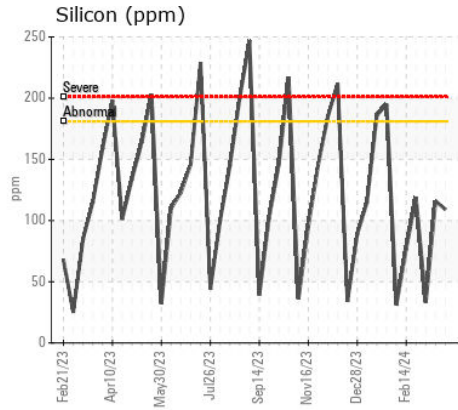
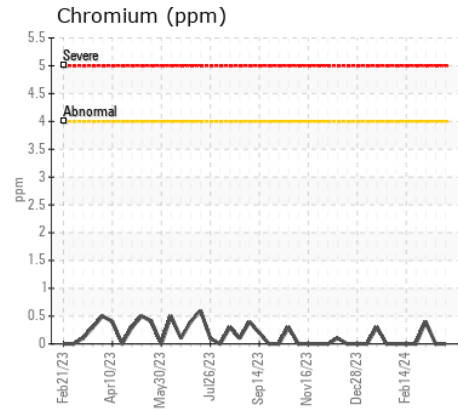
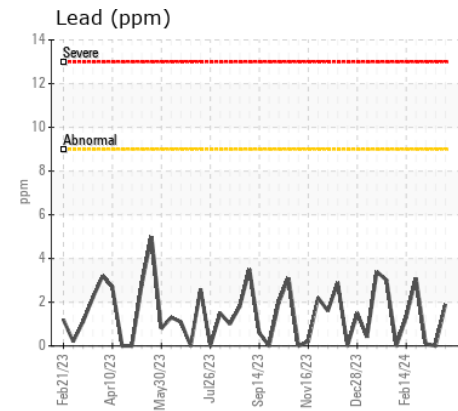
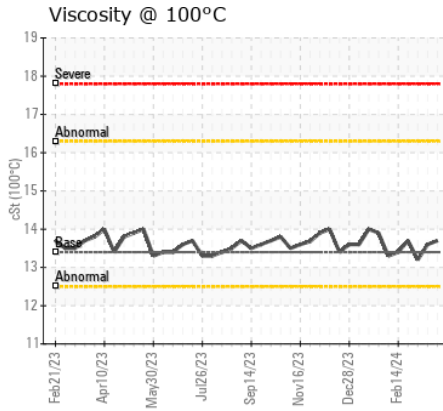
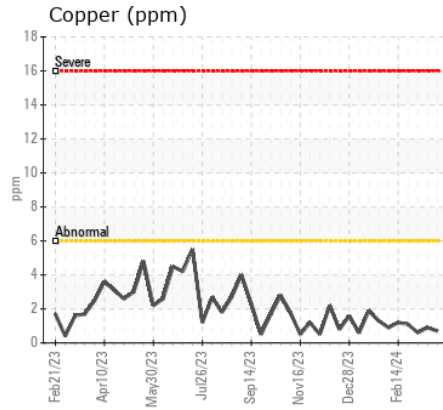
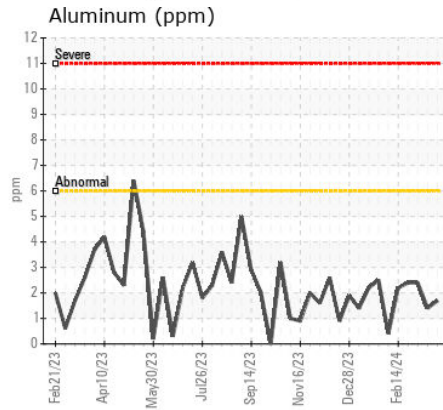
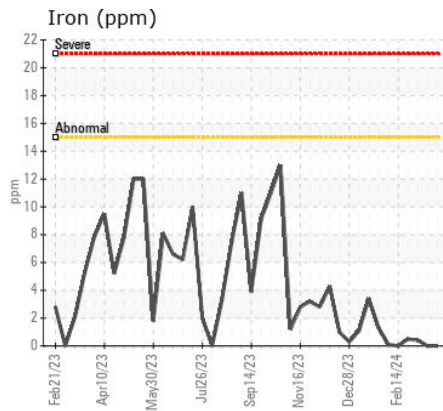
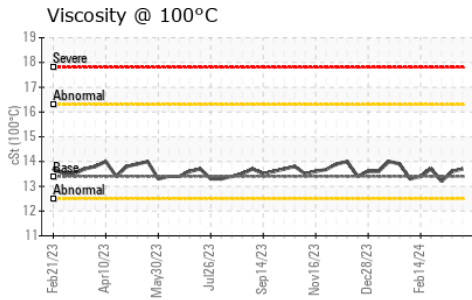
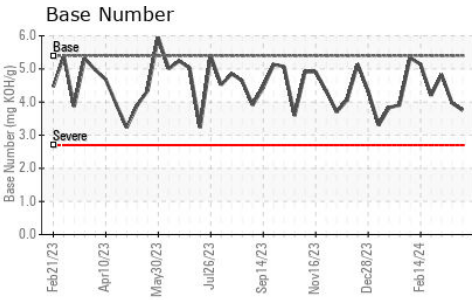
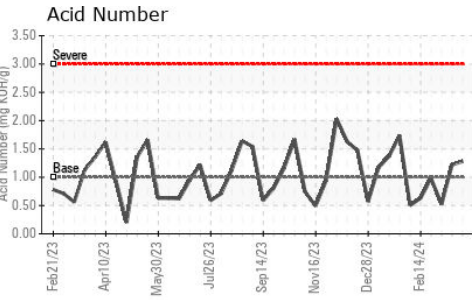
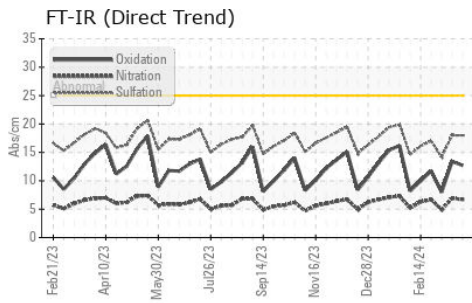
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>181	109	116	33
Potassium	ppm	ASTM D5185m	>20	4	<1	3
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>.11	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.1	0
Nitration	Abs/cm	*ASTM D7624		6.7	6.9	4.9
Sulfation	Abs/.1mm	*ASTM D7415		18.0	18.0	14.2
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	>.11	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	>21	1	2	0
Boron	ppm	ASTM D5185m		0	2	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		6	3	3
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		7	6	7
Calcium	ppm	ASTM D5185m		1969	1742	1587
Phosphorus	ppm	ASTM D5185m		285	245	258
Zinc	ppm	ASTM D5185m		336	315	308
Sulfur	ppm	ASTM D5185m		2371	1974	1794
Oxidation	Abs/.1mm	*ASTM D7414		12.7	13.4	8.0
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	1.28	1.22	0.52
Base Number (BN)	mg KOH/g	ASTM D2896	5.4	3.75	3.97	4.83
Visc @ 100°C	cSt	ASTM D445	13.4	13.7	13.6	13.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0871562
Lab Number : 06153277
Unique Number : 10983355
Test Package : MOB 2
Received : 18 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 22 Apr 2024 - Sean Felton

EDL NA Recips-Coopersville
 Coopersville Powerstation, 15362 68th Avenue
 Coopersville, MI
 US 49404
 Contact: Daniel Young
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 T:
 F:

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)