

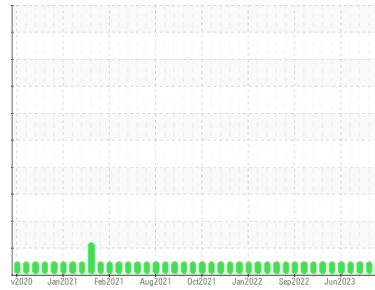


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR 2
 Component
Biogas Engine
 Fluid
MOBIL PEGASUS 805 (140 GAL)

Sample Rating Trend



NORMAL



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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0850404	WC0850402	WC0850401
Sample Date	Client Info		28 Mar 2024	08 Mar 2024	31 Oct 2023
Machine Age	hrs	Client Info	110065	109586	106553
Oil Age	hrs	Client Info	888	408	1512
Oil Changed	Client Info		Not Chngd	Changed	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<1.0
Water	WC Method	>0.1	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >45	<1	0	1
Chromium	ppm	ASTM D5185m >2	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >5	0	0	0
Aluminum	ppm	ASTM D5185m >10	4	2	3
Lead	ppm	ASTM D5185m >5	<1	<1	<1
Copper	ppm	ASTM D5185m >14	<1	<1	<1
Tin	ppm	ASTM D5185m >13	3	1	2
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 80	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	0	<1
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	6	5	7
Calcium	ppm	ASTM D5185m 1020	1621	1349	1360
Phosphorus	ppm	ASTM D5185m 220	355	299	241
Zinc	ppm	ASTM D5185m 230	404	350	315
Sulfur	ppm	ASTM D5185m 1000	2775	2335	1925

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >200	117	60	120
Sodium	ppm	ASTM D5185m	0	0	1
Potassium	ppm	ASTM D5185m >20	1	1	2

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0.7
Nitration	Abs/cm	*ASTM D7624 >20	7.0	6.2	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.2	17.0	21.2

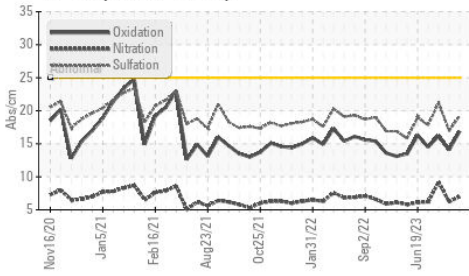
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.9	14.1	16.2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	1.42	0.58	0.98
Base Number (BN)	mg KOH/g	ASTM D2896 6.4	3.06	4.17	3.52

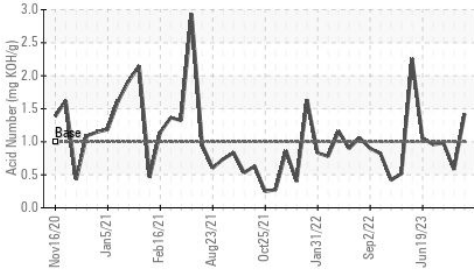


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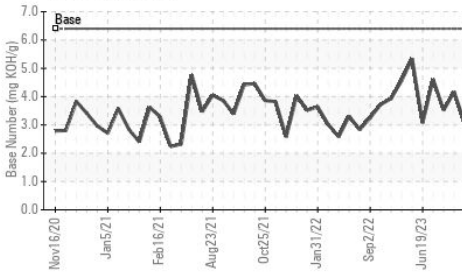
FT-IR (Direct Trend)



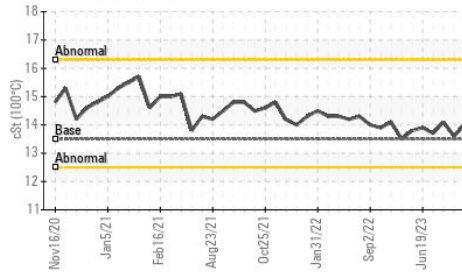
Acid Number



Base Number



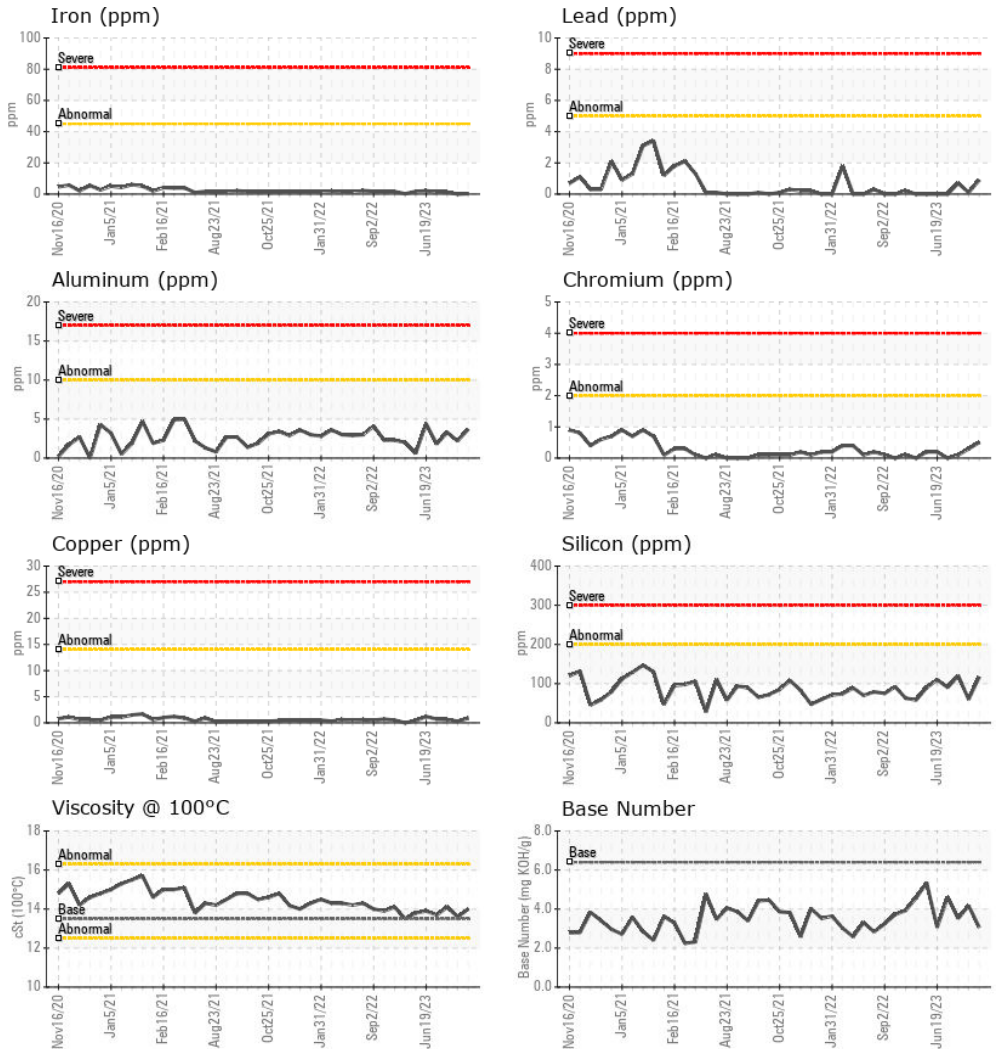
Viscosity @ 100°C



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.5	14.0	13.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0850404
Lab Number : 06148148
Unique Number : 10978226
Test Package : MOB 2

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 16 Apr 2024 - Sean Felton

POWER SECURE
 2080 HWY 247 S
 KATHLEEN, GA
 US 31047

Contact: DONALD STEVENS
 donald.stevens@powersecure.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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F: