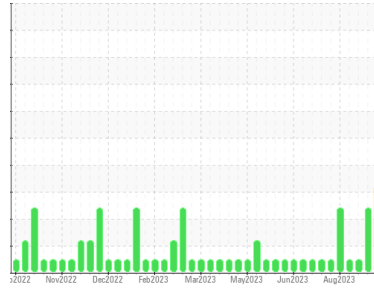




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
Grand Blanc CAT 7 GBLM07BE
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. (Customer Sample Comment: 800hr oil sample)

▲ Wear

The aluminum level is abnormal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

The BN level is low. The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0824971	WC0825027	WC0825039
Sample Date	Client Info		22 Sep 2023	13 Sep 2023	31 Aug 2023
Machine Age	hrs	Client Info	125443	125233	125029
Oil Age	hrs	Client Info	814	600	397
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	ABNORMAL	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	11	7	3
Chromium	ppm	ASTM D5185m >4	0	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >5	0	0	0
Aluminum	ppm	ASTM D5185m >6	▲ 7	<1	2
Lead	ppm	ASTM D5185m >9	2	2	0
Copper	ppm	ASTM D5185m >6	2	2	2
Tin	ppm	ASTM D5185m >4	2	2	2
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	<1	0
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	12	5	9
Calcium	ppm	ASTM D5185m	1924	1984	1930
Phosphorus	ppm	ASTM D5185m	292	284	279
Zinc	ppm	ASTM D5185m	346	330	332
Sulfur	ppm	ASTM D5185m	3588	3842	3688

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >181	174	143	98
Sodium	ppm	ASTM D5185m	1	1	2
Potassium	ppm	ASTM D5185m >20	0	1	<1

INFRA-RED

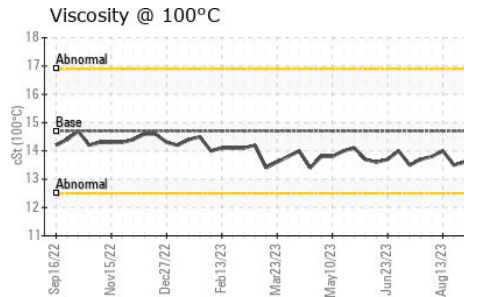
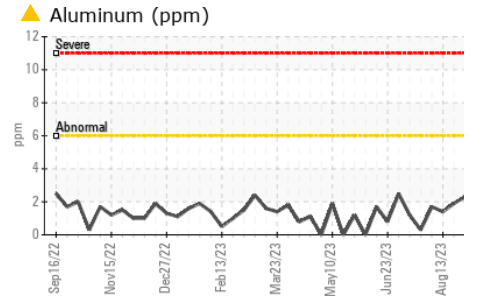
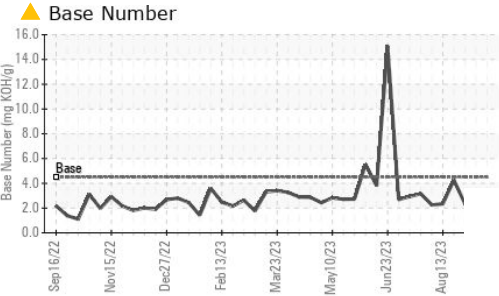
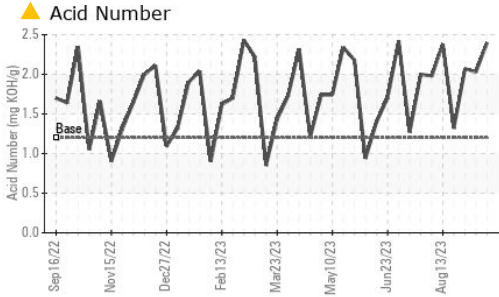
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	6.0	6.1	6.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.3	25.8	23.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.9	16.9	15.1
Acid Number (AN)	mg KOH/g	ASTM D8045 1.2	▲ 2.40	▲ 2.03	2.07
Base Number (BN)	mg KOH/g	ASTM D2896 4.5	▲ 1.15	▲ 1.73	2.33



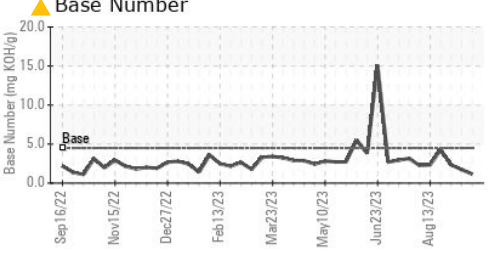
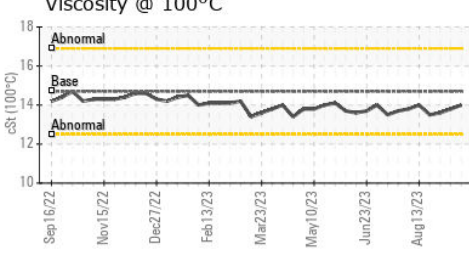
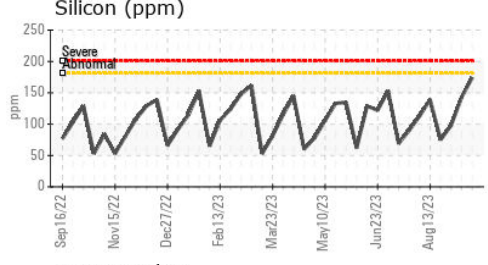
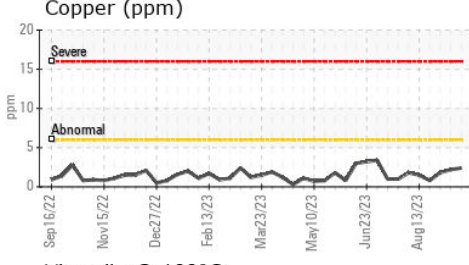
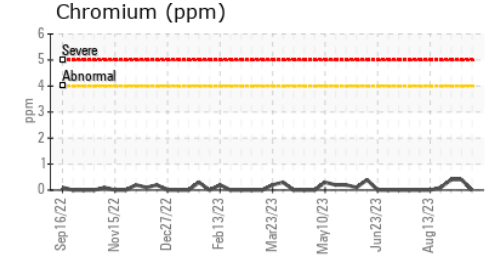
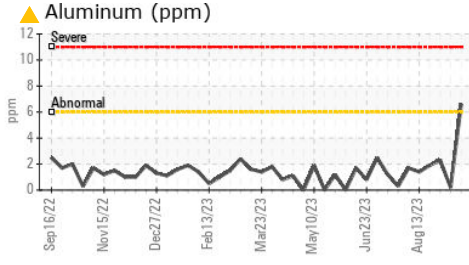
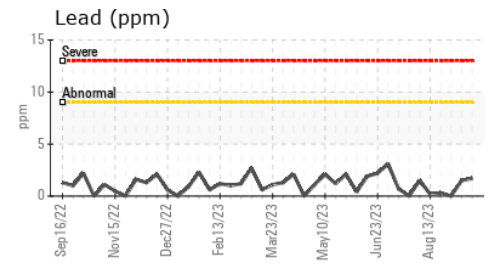
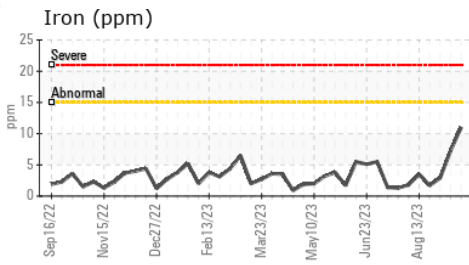
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.7	14.0	13.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0824971 **Received** : 29 Sep 2023
Lab Number : 05965522 **Diagnosed** : 02 Oct 2023
Unique Number : 10672073 **Diagnostician** : Don Baldrige
Test Package : MOB 2

EDL NA Recips-Grand Blanc
 Grand Blanc Powerstation, 2361 West Grand Blanc Road
 Grand Blanc, MI
 US 48439
 Contact: Tony Saint Marie
 tony.saintmarie@edlenergy.com

Certificate L2367
 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)