

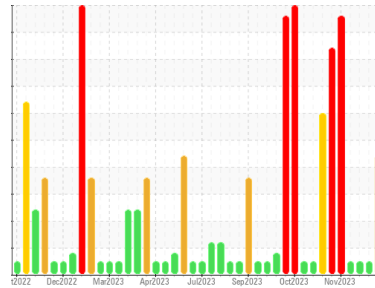


OIL ANALYSIS REPORT



Machine Id
LIDM01BE (S/N GZJ-00169)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (540 LTR)

Sample Rating Trend



PH



DIAGNOSIS

Recommendation

Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Usure de cylindre, de vilebrequin ou d'arbre à cames.

Contamination

Il n'y a aucun indice de contamination dans l'huile.

Fluid Condition

Le niveau de i-pH est anormalement bas. Le niveau de AN est supérieur à la limite recommandée. Le niveau de BN est inférieur à la normale. l'huile ne peut plus être utilisée.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0874383	WC0874381	WC0874392
Sample Date	Client Info		20 Dec 2023	11 Dec 2023	04 Dec 2023
Machine Age	hrs	Client Info	113897	94968	2869
Oil Age	hrs	Client Info	666	94968	282
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	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
PQ	ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m) >15	▲ 17	10	7
Chromium	ppm	ASTM D5185(m) >4	<1	0	0
Nickel	ppm	ASTM D5185(m) >2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >5	0	<1	<1
Aluminum	ppm	ASTM D5185(m) >6	3	2	2
Lead	ppm	ASTM D5185(m) >9	<1	<1	<1
Copper	ppm	ASTM D5185(m) >6	3	2	1
Tin	ppm	ASTM D5185(m) >4	3	2	1
Antimony	ppm	ASTM D5185(m)	3	2	1
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	4	4	4
Barium	ppm	ASTM D5185(m)	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	3	3	3
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	15	15	14
Calcium	ppm	ASTM D5185(m)	1772	1733	1679
Phosphorus	ppm	ASTM D5185(m)	253	243	244
Zinc	ppm	ASTM D5185(m)	303	300	296
Sulfur	ppm	ASTM D5185(m)	3266	2760	2337
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >181	151	112	80
Sodium	ppm	ASTM D5185(m)	<1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	2	<1	<1

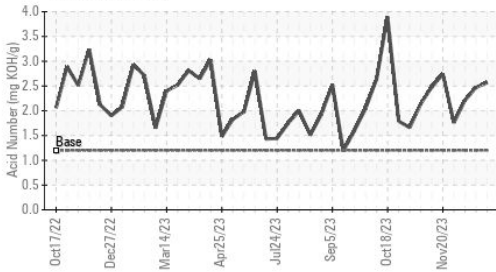
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	4.9	4.8	4.7
Sulfation	Abs./1mm	ASTM D7415* >30	23.7	21.3	19.6

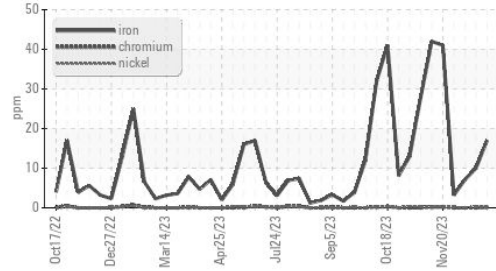


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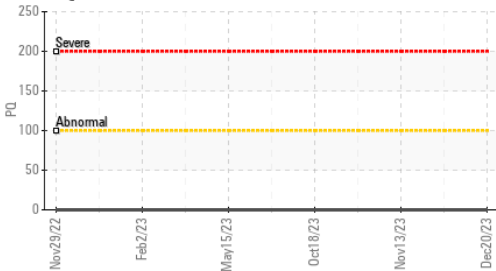
▲ Acid Number



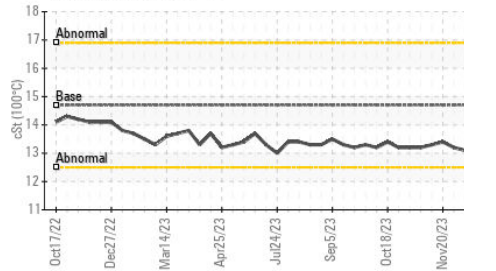
▲ Ferrous Alloys



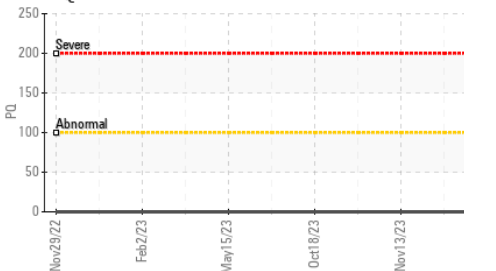
▲ PQ



Viscosity @ 100°C



▲ PQ



FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	11.8	10.2	9.1
Acid Number (AN)	mg KOH/g	ASTM D974*	1.2	▲ 2.57	2.47	2.21
Base Number (BN)	mg KOH/g	ASTM D2896*	4.5	▲ 2.45	2.72	2.91
i-pH	Scale 0-14	ASTM D7946*	<4.5	▲ 4.22	4.62	4.99

VISUAL

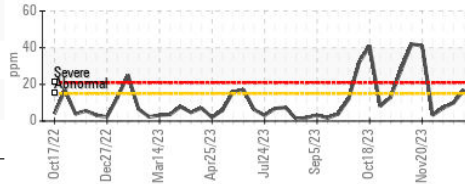
	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES

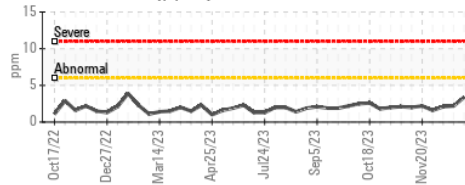
	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.7	13.4	13.2	13.1

GRAPHS

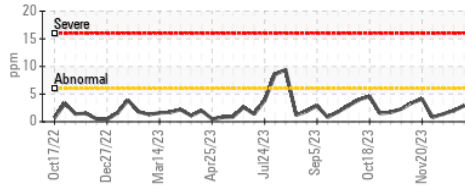
▲ Iron (ppm)



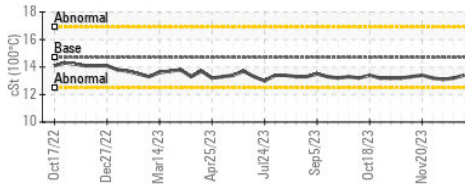
Aluminum (ppm)



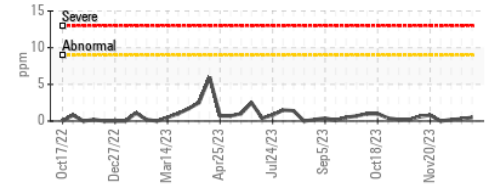
Copper (ppm)



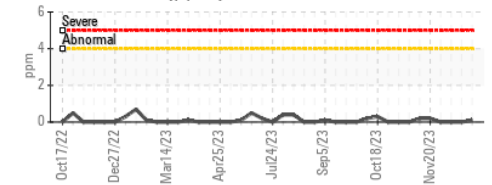
Viscosity @ 100°C



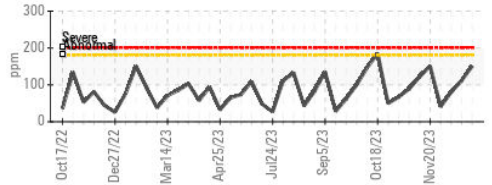
Lead (ppm)



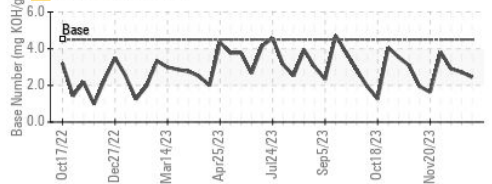
Chromium (ppm)



Silicon (ppm)



▲ Base Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0874383 **Received** : 27 Dec 2023
Lab Number : **02605272** **Diagnosed** : 28 Dec 2023
Unique Number : 5698357 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: i-pH, PQ, TAN Auto, TAN Man, Visual)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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