

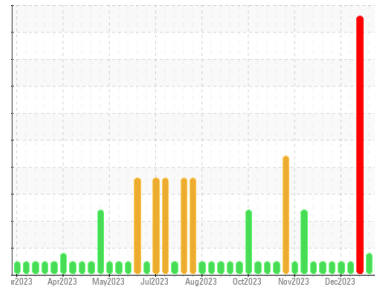


OIL ANALYSIS REPORT



Machine Id
LIDM04BE (S/N GZJ00279)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (540 LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

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

Fluid Condition

Le résultat pour le BN indique que la réserve d'alcalinité est acceptable pour l'huile. Le AN est acceptable pour ce fluide. L'état de l'huile permet d'en prolonger l'utilisation.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0874459	WC0874475	WC0874471
Sample Date	Client Info		15 Jan 2024	08 Jan 2024	02 Jan 2024
Machine Age	hrs	Client Info	48335	48224	48151
Oil Age	hrs	Client Info	111	232	159
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	ABNORMAL	SEVERE

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	▲ 0.013

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>15	4	8	9
Chromium	ppm	ASTM D5185(m)	>4	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>6	2	2	3
Lead	ppm	ASTM D5185(m)	>9	<1	▲ 11	▲ 14
Copper	ppm	ASTM D5185(m)	>6	2	3	4
Tin	ppm	ASTM D5185(m)	>4	1	1	2
Antimony	ppm	ASTM D5185(m)		<1	1	<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	18	23
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		1	13	16
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		14	19	18
Calcium	ppm	ASTM D5185(m)		1715	1667	1737
Phosphorus	ppm	ASTM D5185(m)		260	248	265
Zinc	ppm	ASTM D5185(m)		296	300	314
Sulfur	ppm	ASTM D5185(m)		2300	2758	2768
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>181	42	60	54
Sodium	ppm	ASTM D5185(m)		6	82	● 111
Potassium	ppm	ASTM D5185(m)	>20	1	3	4

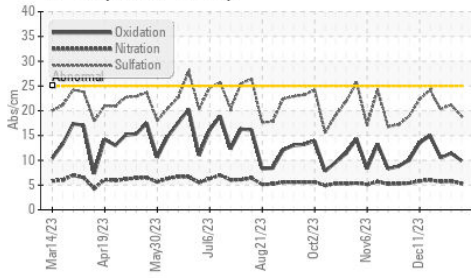
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	5.3	5.8	5.7
Sulfation	Abs./1mm	ASTM D7415*	>30	18.9	21.2	20.3

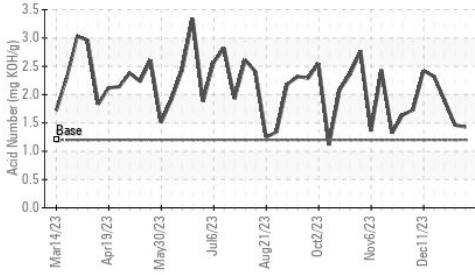


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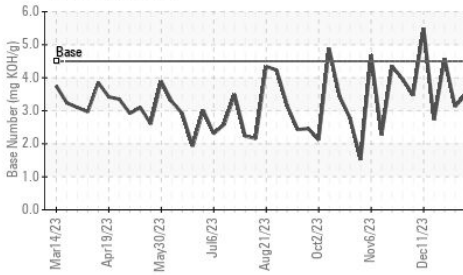
FT-IR (Direct Trend)



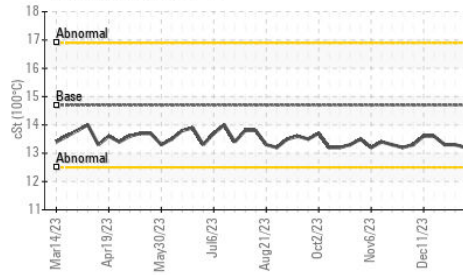
Acid Number



Base Number



Viscosity @ 100°C



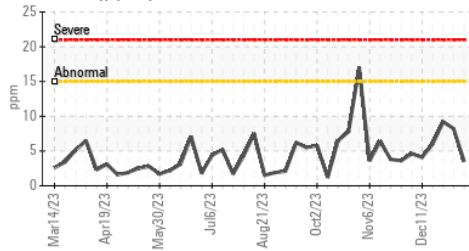
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	9.9	11.4	10.5
Acid Number (AN)	mg KOH/g	ASTM D974*	1.2	1.43	1.46	1.90
Base Number (BN)	mg KOH/g	ASTM D2896*	4.5	3.48	3.13	4.58
i-pH	Scale 0-14	ASTM D7946*	<4.5	6.68	4.69	5.41

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

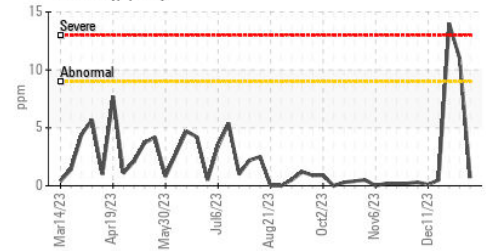
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.7	13.2	13.3	13.3

GRAPHS

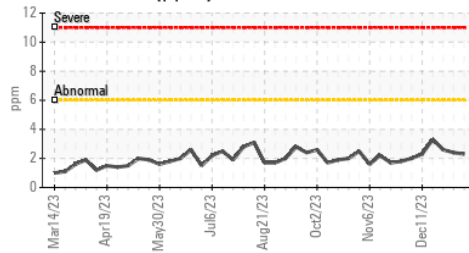
Iron (ppm)



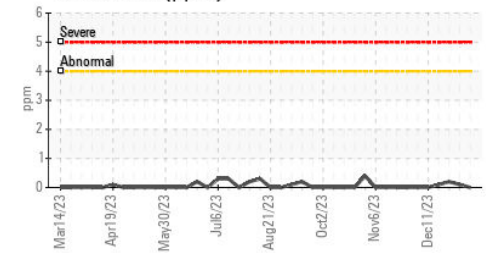
Lead (ppm)



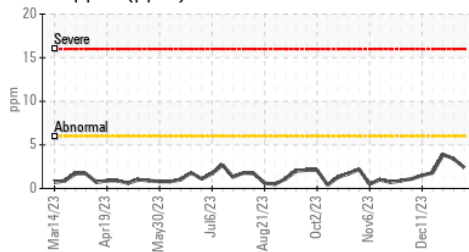
Aluminum (ppm)



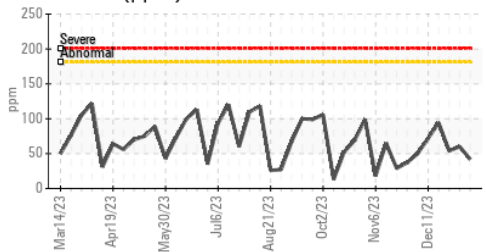
Chromium (ppm)



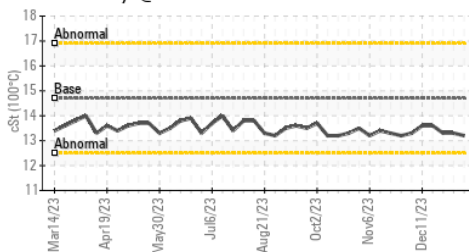
Copper (ppm)



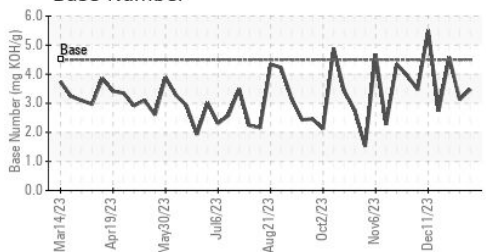
Silicon (ppm)



Viscosity @ 100°C



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0874459 **Received** : 17 Jan 2024
Lab Number : **02609282** **Tested** : 22 Jan 2024
Unique Number : 5710368 **Diagnosed** : 22 Jan 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: i-pH, TAN Auto)

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 T: (450)526-4001
 F:

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.