

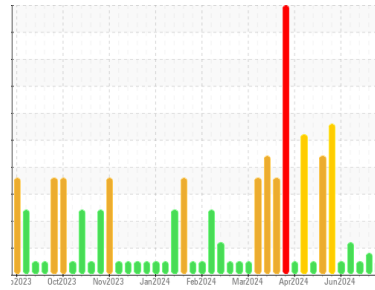


OIL ANALYSIS REPORT



Machine Id
LIDM07BE (S/N GZJ00166)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (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		WC0954690	WC0904265	WC0954714
Sample Date	Client Info		08 Jul 2024	02 Jul 2024	17 Jun 2024
Machine Age	hrs	Client Info	30087	29974	29760
Oil Age	hrs	Client Info	391	278	64
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	ATTENTION	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >14	7	10	2
Chromium	ppm	ASTM D5185(m) >3	<1	<1	0
Nickel	ppm	ASTM D5185(m)	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >5	3	3	2
Lead	ppm	ASTM D5185(m) >8	0	0	0
Copper	ppm	ASTM D5185(m) >5	2	2	<1
Tin	ppm	ASTM D5185(m) >3	2	2	<1
Antimony	ppm	ASTM D5185(m)	2	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)	6	6	6
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	5	5	5
Manganese	ppm	ASTM D5185(m)	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	10	9	9
Calcium	ppm	ASTM D5185(m)	1740	1706	1673
Phosphorus	ppm	ASTM D5185(m)	244	234	234
Zinc	ppm	ASTM D5185(m)	303	295	287
Sulfur	ppm	ASTM D5185(m)	2401	2338	1920
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >180	104	93	30
Sodium	ppm	ASTM D5185(m) >20	2	1	<1
Potassium	ppm	ASTM D5185(m) >20	3	3	2

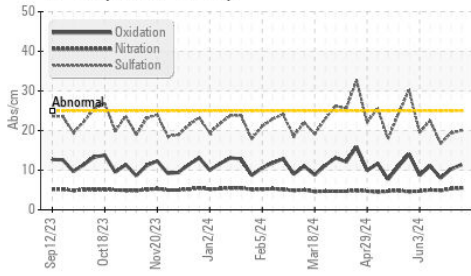
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624*	5.5	5.3	4.9
Sulfation	Abs./1mm	ASTM D7415*	20.0	19.3	16.8

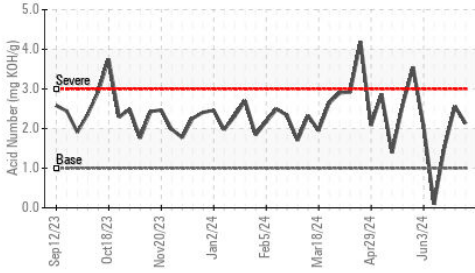


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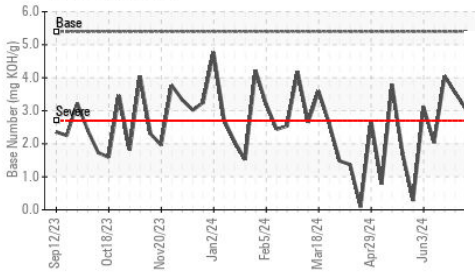
FT-IR (Direct Trend)



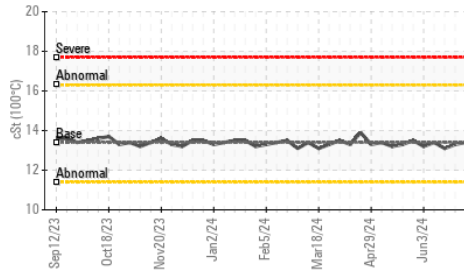
Acid Number



Base Number



Viscosity @ 100°C



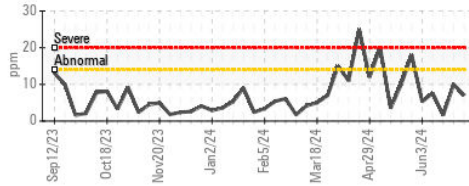
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	11.4	10.3	8.0
Acid Number (AN)	mg KOH/g	ASTM D974*	2.13	2.56	1.54
Base Number (BN)	mg KOH/g	ASTM D2896*	3.08	3.55	4.05
i-pH	Scale 0-14	ASTM D7946*	4.96	4.99	5.88

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

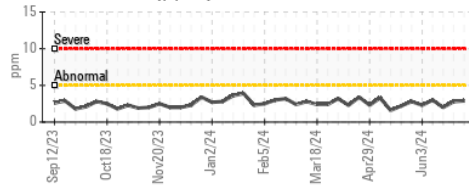
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.4	13.3	13.1

GRAPHS

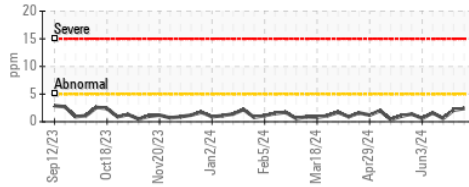
Iron (ppm)



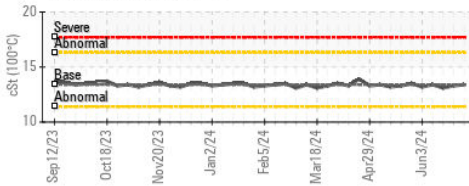
Aluminum (ppm)



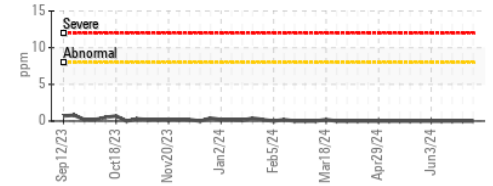
Copper (ppm)



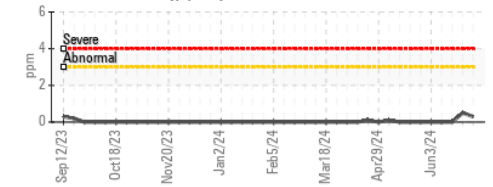
Viscosity @ 100°C



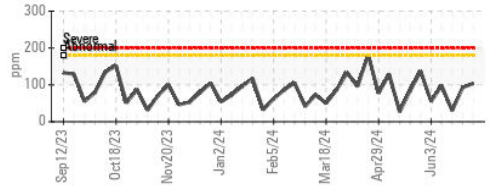
Lead (ppm)



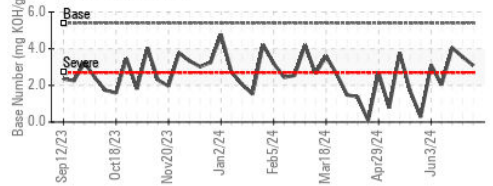
Chromium (ppm)



Silicon (ppm)



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0954690 **Received** : 10 Jul 2024
Lab Number : **02646970** **Tested** : 16 Jul 2024
Unique Number : 5812522 **Diagnosed** : 16 Jul 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: i-pH, TAN Auto, TAN Man, Visual)

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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.