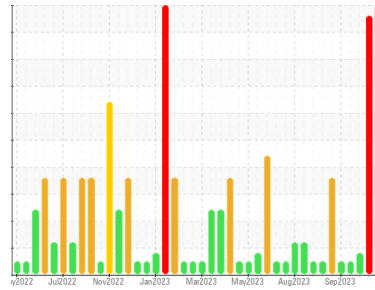




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
LIDM01BE (S/N GZJ-00169)

Component
Biogas Engine

Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (540 LTR)

DIAGNOSIS

Recommendation

Nous vous recommandons de vérifier l'efficacité du purificateur d'huile. Nous vous recommandons de vérifier le filtre à air, le système d'induction d'air et tout endroit où la saleté peut entrer dans le composant. Nous avons pris note que l'huile a été vidangée et le filtre remplacé au moment de l'échantillonnage. Nous vous suggérons de confirmer les résultats de l'analyse avant toute action importante de maintenance soit entreprise. Indiquez sur le formulaire d'échantillonnage (SIF-sample information form) qu'il s'agit d'un ré-échantillonnage. 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

Concentration modérée de saleté dans l'huile. Une grande quantité de saleté a provoqué une usure abrasive du composant.

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		WC0817907	WC0817902	WC0772238
Sample Date	Client Info		18 Oct 2023	11 Oct 2023	02 Oct 2023
Machine Age	hrs	Client Info	1992	1800	1606
Oil Age	hrs	Client Info	639	448	253
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			SEVERE	SEVERE	MARGINAL

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
PQ	ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m) >15	41	32	12
Chromium	ppm	ASTM D5185(m) >4	<1	<1	0
Nickel	ppm	ASTM D5185(m) >2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >5	<1	<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	5	4	3
Tin	ppm	ASTM D5185(m) >4	3	3	2
Antimony	ppm	ASTM D5185(m)	5	4	2
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)	3	3	3
Barium	ppm	ASTM D5185(m)	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	4	4	4
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	9	9	7
Calcium	ppm	ASTM D5185(m)	1828	1788	1765
Phosphorus	ppm	ASTM D5185(m)	239	240	237
Zinc	ppm	ASTM D5185(m)	298	294	285
Sulfur	ppm	ASTM D5185(m)	3434	3057	2398
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >181	185	147	100
Sodium	ppm	ASTM D5185(m)	1	1	1
Potassium	ppm	ASTM D5185(m) >20	2	<1	2

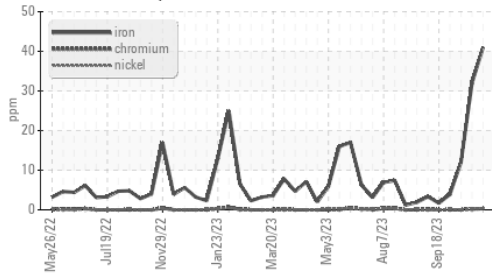
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	4.7	4.8	4.7
Sulfation	Abs./1mm	ASTM D7415* >30	26.2	23.6	20.1

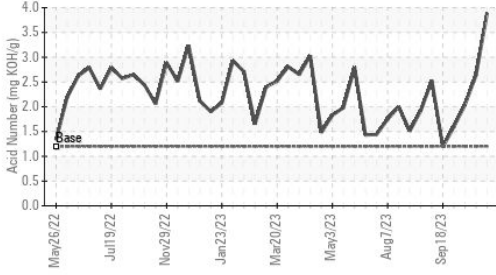


OIL ANALYSIS REPORT

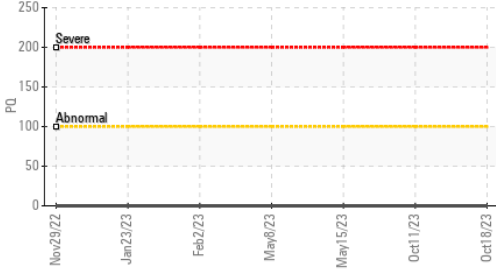
Ferrous Alloys



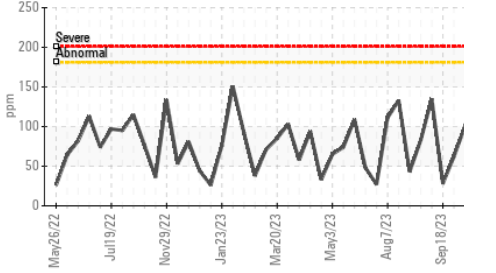
Acid Number



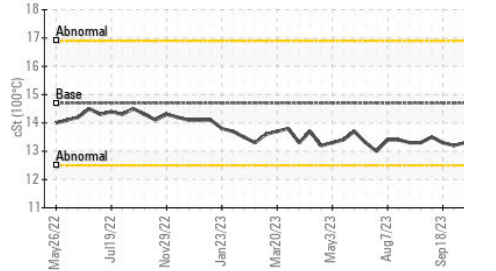
PQ



Silicon (ppm)



Viscosity @ 100°C



FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	12.1	10.8
Acid Number (AN)	mg KOH/g	ASTM D974*	1.2	3.89	2.64
Base Number (BN)	mg KOH/g	ASTM D2896*	4.5	1.27	1.95
i-pH	Scale 0-14	ASTM D7946*	<4.5	2.97	3.80

VISUAL

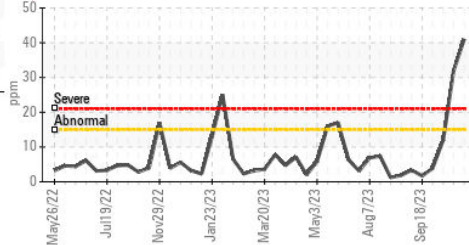
	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES

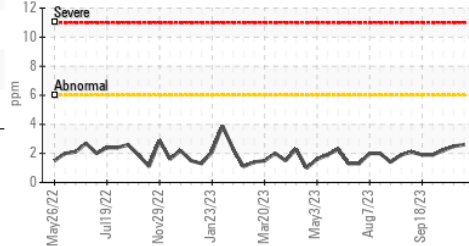
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.7	13.4	13.2

GRAPHS

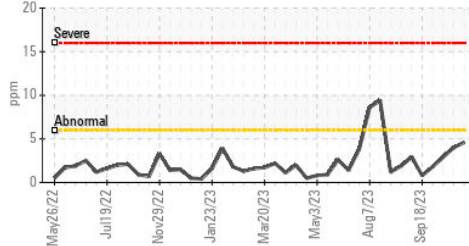
Iron (ppm)



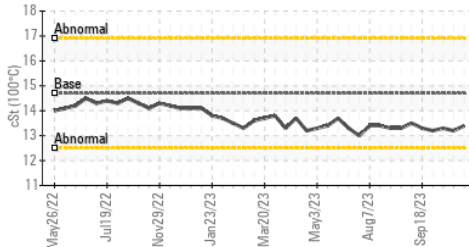
Aluminum (ppm)



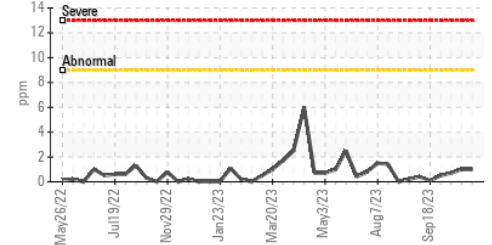
Copper (ppm)



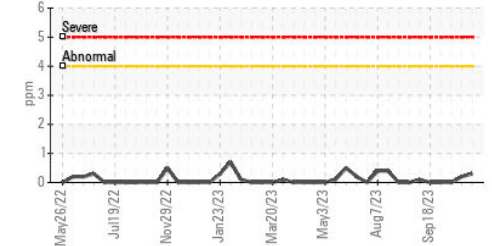
Viscosity @ 100°C



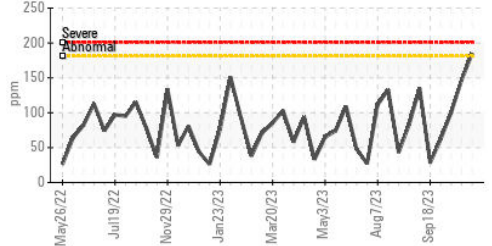
Lead (ppm)



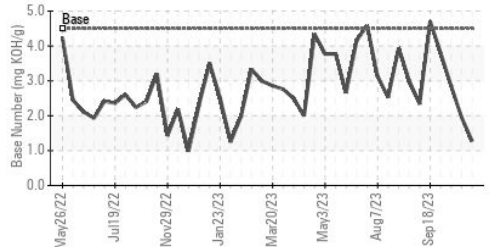
Chromium (ppm)



Silicon (ppm)



Base Number



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0817907
Lab Number : 02590604
Unique Number : 5659670
Test Package : MOB 2 (Additional Tests: i-pH, PQ, TAN Auto, TAN Man)

Received : 20 Oct 2023
Diagnosed : 23 Oct 2023
Diagnostician : Kevin Marson

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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