

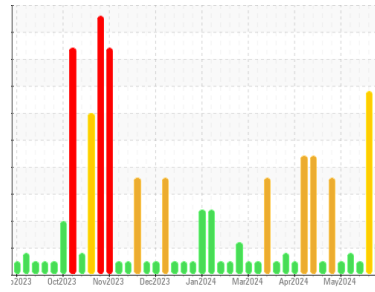


OIL ANALYSIS REPORT



Machine Id
LIDM02BE (S/N GZJ00681)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (540 LTR)

Sample Rating Trend



GLYCOL



DIAGNOSIS

Recommendation

Nous avons pris note que la vidange d'huile a été effectuée au moment de l'échantillonnage. 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

Le test de glycol est négatif. 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		WC0904260	WC0954719	WC0904322
Sample Date	Client Info		02 Jul 2024	26 Jun 2024	03 Jun 2024
Machine Age	hrs	Client Info	20269	20099	19812
Oil Age	hrs	Client Info	393	223	69
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			ATTENTION	ABNORMAL	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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>14	9	▲ 12	4
Chromium	ppm	ASTM D5185(m)	>3	<1	<1	0
Nickel	ppm	ASTM D5185(m)		<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	2	2	1
Lead	ppm	ASTM D5185(m)	>8	6	▲ 10	0
Copper	ppm	ASTM D5185(m)	>5	8	▲ 10	<1
Tin	ppm	ASTM D5185(m)	>3	2	▲ 2	0
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)		13	20	4
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		13	18	<1
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		10	9	10
Calcium	ppm	ASTM D5185(m)		1688	1586	1647
Phosphorus	ppm	ASTM D5185(m)		233	229	242
Zinc	ppm	ASTM D5185(m)		297	289	279
Sulfur	ppm	ASTM D5185(m)		1958	2035	2074
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>180	81	61	28
Sodium	ppm	ASTM D5185(m)	>20	● 61	● 94	<1
Potassium	ppm	ASTM D5185(m)	>20	3	4	1
Glycol	%	ASTM D7922*		0.0	▲ 0.017	NEG

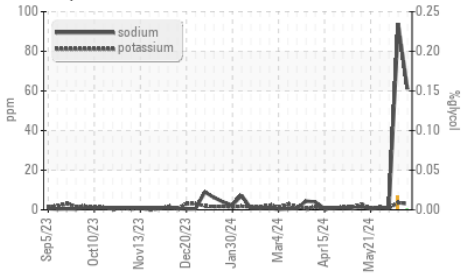
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*		5.4	5.1	4.7
Sulfation	Abs./1mm	ASTM D7415*		18.3	17.8	18.0

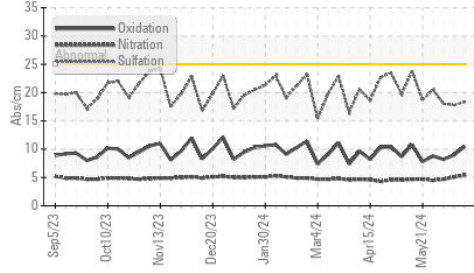


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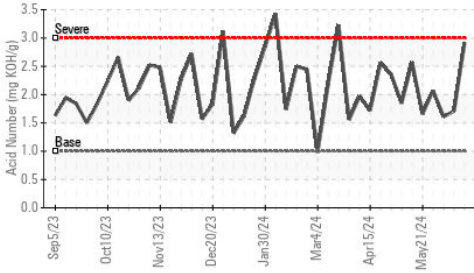
Glycol Contamination



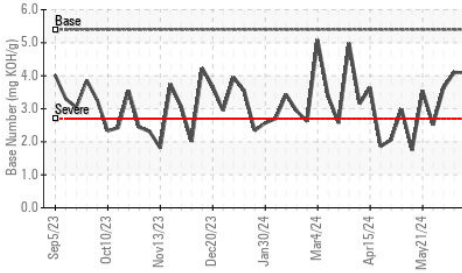
FT-IR (Direct Trend)



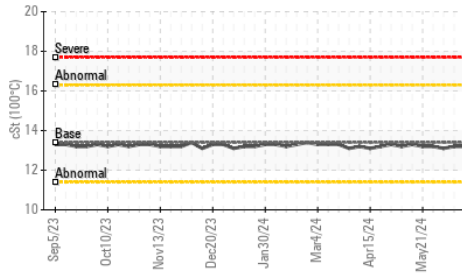
Acid Number



Base Number



Viscosity @ 100°C



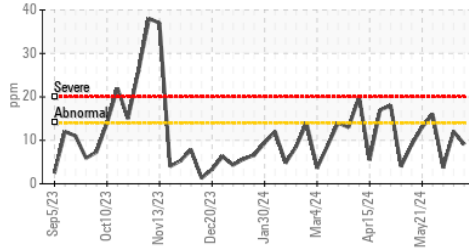
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	10.5	9.0	8.2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.91	1.71	1.61
Base Number (BN)	mg KOH/g	ASTM D2896*	4.09	4.10	3.63
i-pH	Scale 0-14	ASTM D7946*	5.09	5.43	5.00

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

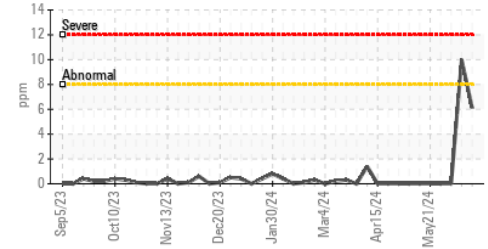
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.2	13.2	13.1

GRAPHS

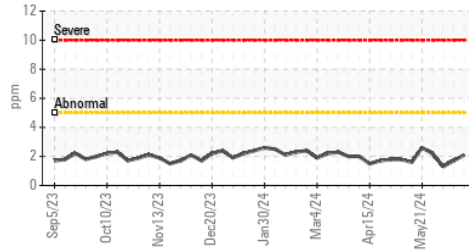
Iron (ppm)



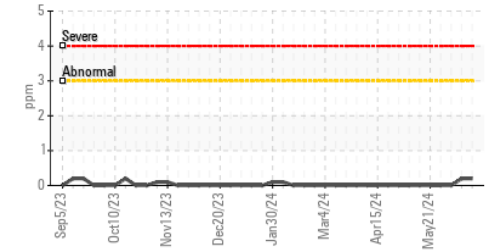
Lead (ppm)



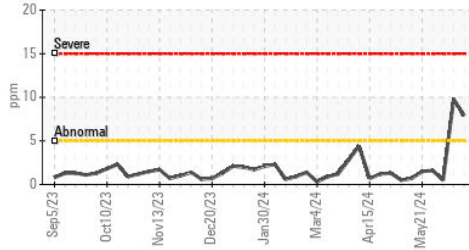
Aluminum (ppm)



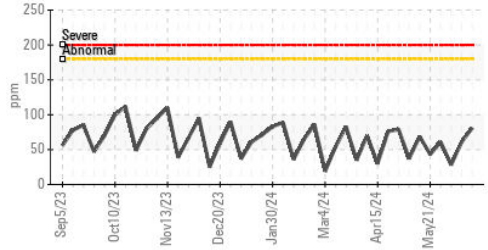
Chromium (ppm)



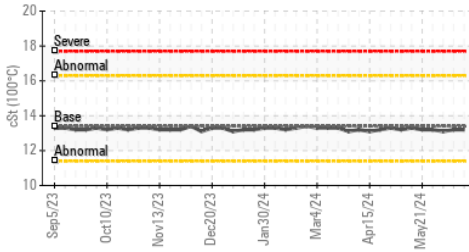
Copper (ppm)



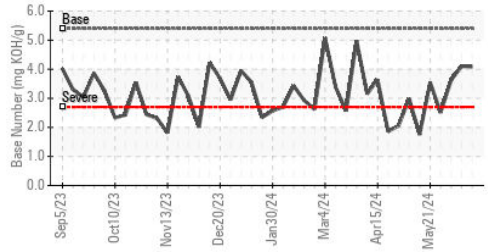
Silicon (ppm)



Viscosity @ 100°C



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0904260 **Received** : 03 Jul 2024
Lab Number : 02645245 **Tested** : 09 Jul 2024
Unique Number : 5802784 **Diagnosed** : 09 Jul 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: GLYCOL, i-pH, TAN Auto, TAN Man)

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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