

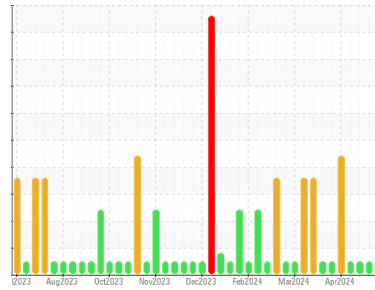


# OIL ANALYSIS REPORT



Machine Id  
**LIDM04BE (S/N GZJ00279)**  
 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		<b>WC0954711</b>	WC0904255	WC0904270
Sample Date	Client Info		<b>17 Jun 2024</b>	10 Jun 2024	03 Jun 2024
Machine Age	hrs	Client Info	<b>51038</b>	50928	50763
Oil Age	hrs	Client Info	<b>379</b>	269	104
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >14	<b>4</b>	5	7
Chromium	ppm	ASTM D5185(m) >3	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >5	<b>3</b>	3	4
Lead	ppm	ASTM D5185(m) >8	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m) >5	<b>1</b>	2	2
Tin	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>6</b>	6	4
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>5</b>	4	<1
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	<b>9</b>	10	12
Calcium	ppm	ASTM D5185(m)	<b>1696</b>	1731	1688
Phosphorus	ppm	ASTM D5185(m)	<b>241</b>	242	248
Zinc	ppm	ASTM D5185(m)	<b>294</b>	297	287
Sulfur	ppm	ASTM D5185(m)	<b>1939</b>	2203	2334
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

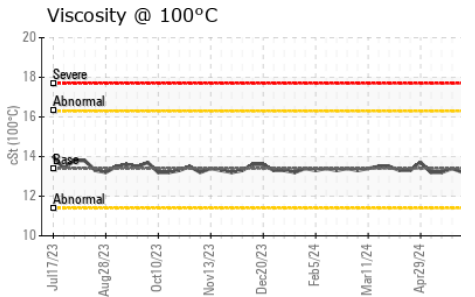
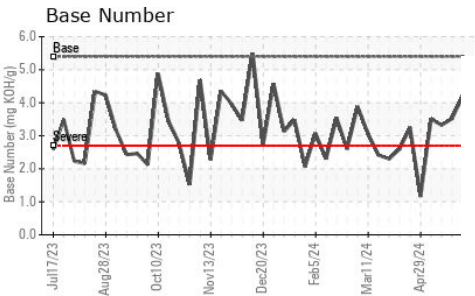
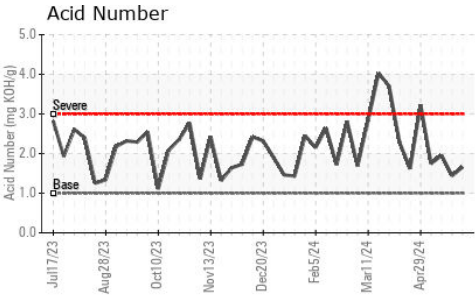
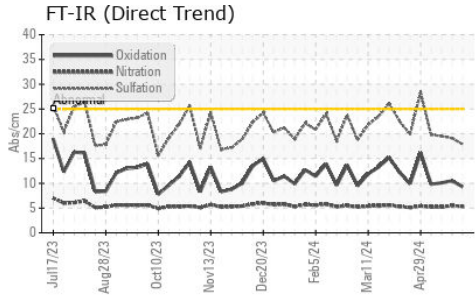
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >180	<b>38</b>	46	34
Sodium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	2
Potassium	ppm	ASTM D5185(m) >20	<b>2</b>	2	1

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	<b>5.3</b>	5.5	5.2
Sulfation	Abs./1mm	ASTM D7415*	<b>17.9</b>	19.1	19.5



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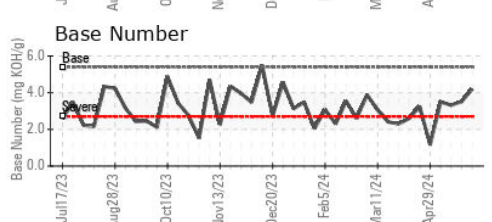
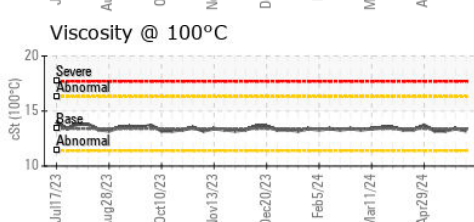
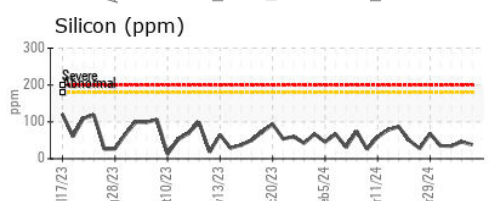
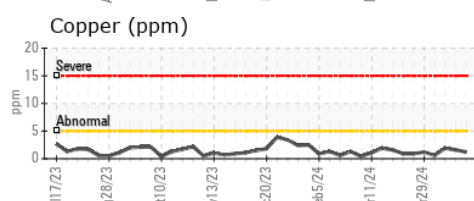
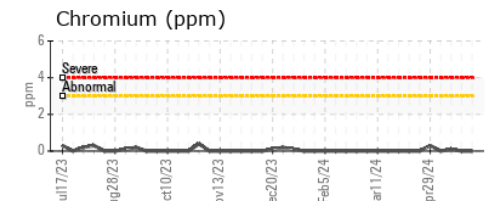
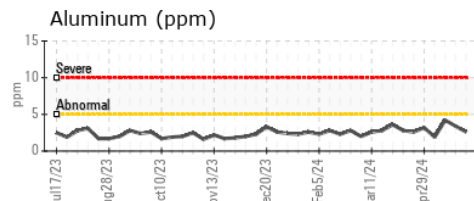
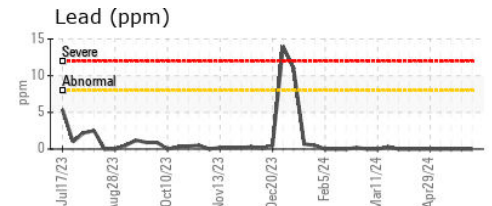
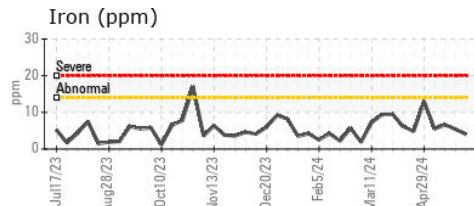


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	<b>9.3</b>	10.5	10.1
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>1.66</b>	1.44	1.95
Base Number (BN)	mg KOH/g	ASTM D2896*	<b>4.19</b>	3.52	3.32
i-pH	Scale 0-14	ASTM D7946*	<b>6.19</b>	5.33	4.90

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	<b>13.2</b>	13.4	13.2

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0954711 **Received** : 18 Jun 2024  
**Lab Number** : **02642551** **Tested** : 20 Jun 2024  
**Unique Number** : 5800090 **Diagnosed** : 20 Jun 2024 - Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: i-pH, TAN Auto, TAN Man, Visual )

**EDL NA Recips-Lydia**  
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 LACHUTE, QC  
 CA J8H 2C5  
 Contact: Eloi Legault  
 eloi.legault@energydi.com  
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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.