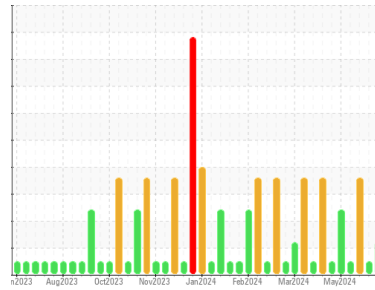




OIL ANALYSIS REPORT

Machine Id
LIDM05BE (S/N GZJ00188A)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (540 LTR)

Sample Rating Trend



DIAGNOSIS

Recommendation

Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Nous avons noté une hausse du taux d'étain. Nous avons noté une hausse du taux de antimoine. Les taux d'usure de tous les autres 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	WC0904256	WC0904268	WC0904273
Sample Date	Client Info	10 Jun 2024	03 Jun 2024	27 May 2024
Machine Age	hrs	50928	31894	31739
Oil Age	hrs	9137	57	231
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		MARGINAL	NORMAL	ABNORMAL

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	5	2	6
Chromium	ppm ASTM D5185(m) >3	0	0	0
Nickel	ppm ASTM D5185(m)	0	0	0
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >5	2	1	2
Lead	ppm ASTM D5185(m) >8	0	0	0
Copper	ppm ASTM D5185(m) >5	1	<1	<1
Tin	ppm ASTM D5185(m) >3	▲ 2	<1	1
Antimony	ppm ASTM D5185(m)	▲ 2	<1	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)	4	4	4
Barium	ppm ASTM D5185(m)	0	0	0
Molybdenum	ppm ASTM D5185(m)	<1	0	<1
Manganese	ppm ASTM D5185(m)	<1	0	<1
Magnesium	ppm ASTM D5185(m)	10	10	14
Calcium	ppm ASTM D5185(m)	1726	1670	1736
Phosphorus	ppm ASTM D5185(m)	241	245	242
Zinc	ppm ASTM D5185(m)	301	285	291
Sulfur	ppm ASTM D5185(m)	2297	1942	2853
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >180	82	29	67
Sodium	ppm ASTM D5185(m) >20	<1	<1	2
Potassium	ppm ASTM D5185(m) >20	1	<1	2

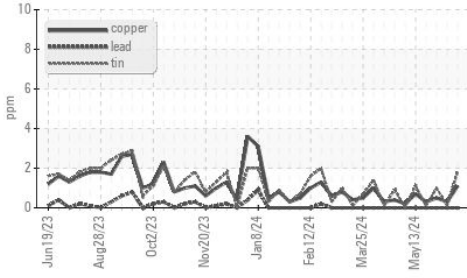
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	0	0
Nitration	Abs/cm ASTM D7624*	4.9	4.8	4.9
Sulfation	Abs.1mm ASTM D7415*	19.6	17.5	23.5

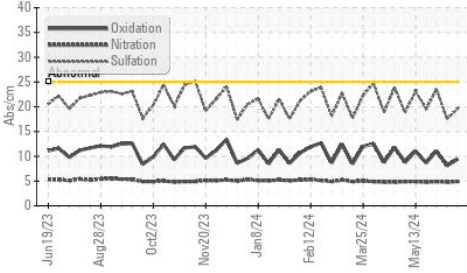


OIL ANALYSIS REPORT

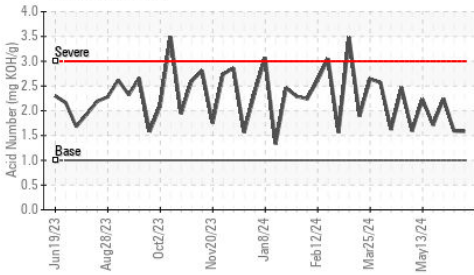
▲ Non-ferrous Metals



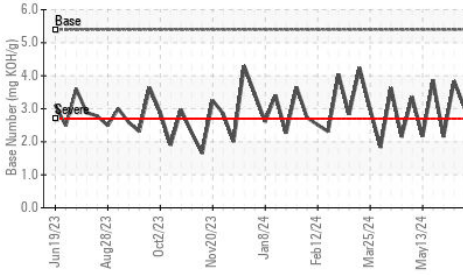
FT-IR (Direct Trend)



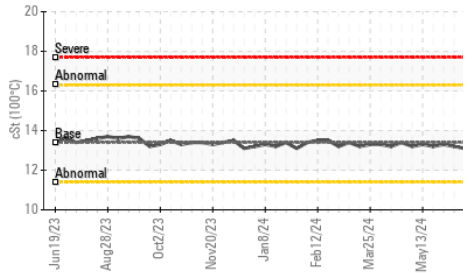
Acid Number



Base Number



Viscosity @ 100°C



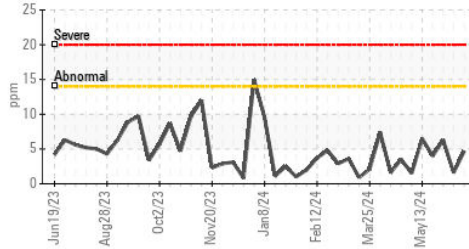
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	9.4	8.1	11.0
Acid Number (AN)	mg KOH/g	ASTM D974*	1.58	1.59	▲ 2.24
Base Number (BN)	mg KOH/g	ASTM D2896*	3.03	3.84	▲ 2.15
i-pH	Scale 0-14	ASTM D7946*	5.15	5.20	▲ 4.20

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

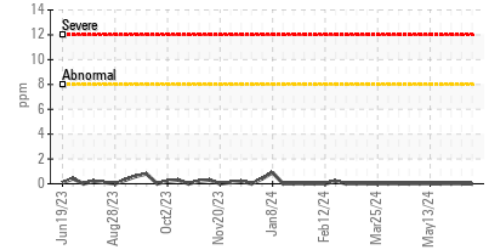
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.1	13.2	13.3

GRAPHS

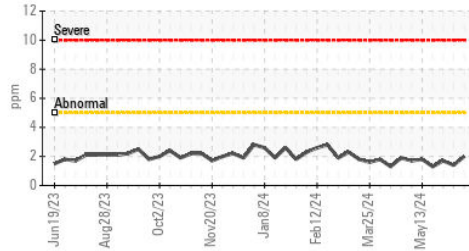
Iron (ppm)



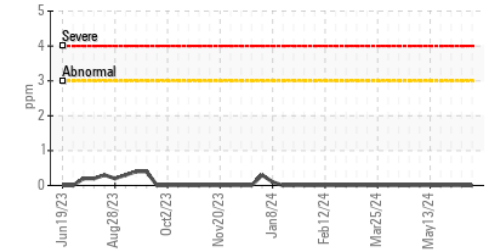
Lead (ppm)



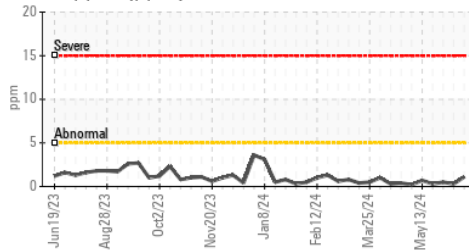
Aluminum (ppm)



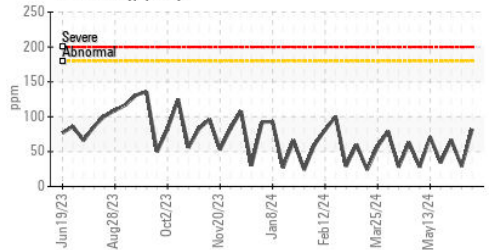
Chromium (ppm)



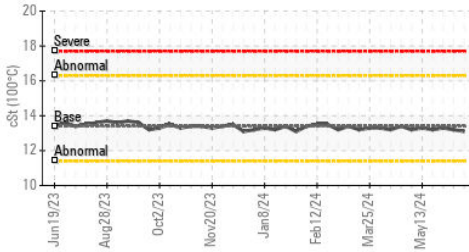
Copper (ppm)



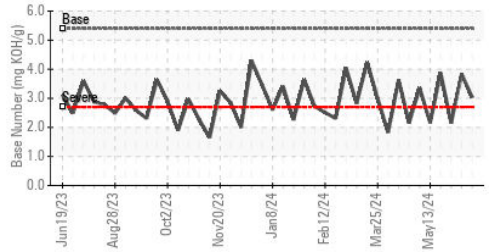
Silicon (ppm)



Viscosity @ 100°C



Base Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0904256 **Received** : 11 Jun 2024
Lab Number : **02641099** **Tested** : 12 Jun 2024
Unique Number : 5798638 **Diagnosed** : 12 Jun 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: i-pH, TAN Auto, TAN Man)

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