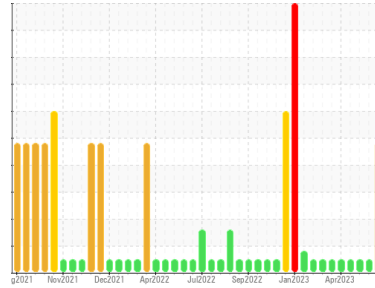




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
COVM04BE (S/N GZJ00185)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (141 GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0816130	WC0722576	WC0816098
Sample Date	Client Info		09 Aug 2023	21 Jul 2023	10 Jul 2023
Machine Age	hrs	Client Info	802067	125051	124798
Oil Age	hrs	Client Info	1014	124467	124467
Oil Changed	Client Info		Not Chngd	Changed	Changed
Sample Status			SEVERE	NORMAL	NORMAL

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
Iron	ppm	ASTM D5185m >15	13	8	8
Chromium	ppm	ASTM D5185m >4	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >5	0	0	0
Aluminum	ppm	ASTM D5185m >6	4	2	2
Lead	ppm	ASTM D5185m >9	2	<1	<1
Copper	ppm	ASTM D5185m >6	3	2	2
Tin	ppm	ASTM D5185m >4	5	2	2
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	4	5	7
Barium	ppm	ASTM D5185m	0	0	2
Molybdenum	ppm	ASTM D5185m	8	7	7
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	39	32	30
Calcium	ppm	ASTM D5185m	1990	1853	1769
Phosphorus	ppm	ASTM D5185m	331	300	281
Zinc	ppm	ASTM D5185m	415	354	371
Sulfur	ppm	ASTM D5185m	2772	2464	2462

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >181	329	173	102
Sodium	ppm	ASTM D5185m	2	1	<1
Potassium	ppm	ASTM D5185m >20	2	0	1

INFRA-RED

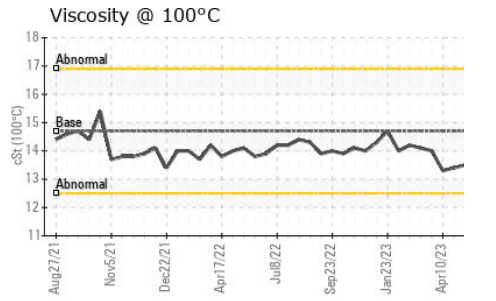
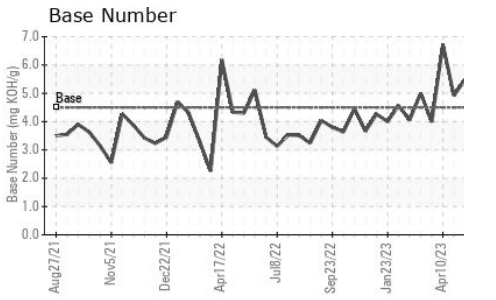
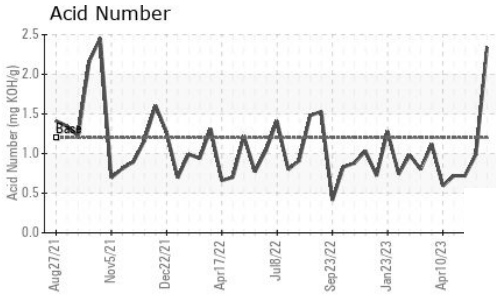
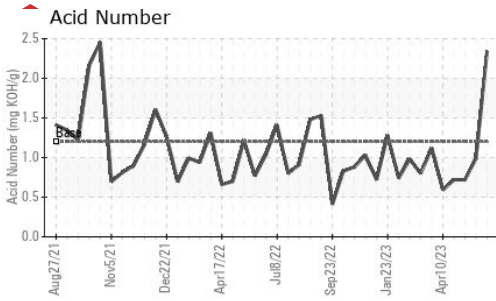
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	6.7	5.6	5.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.7	18.4	17.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.3	11.5	10.2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.2	2.34	0.99	0.72
Base Number (BN)	mg KOH/g	ASTM D2896 4.5	5.26	4.86	5.47



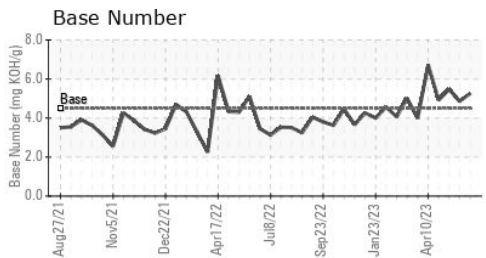
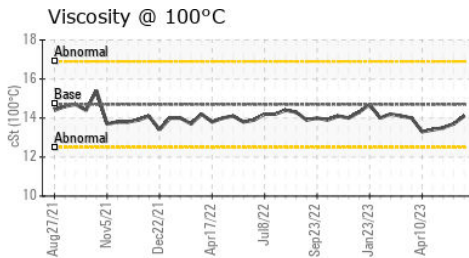
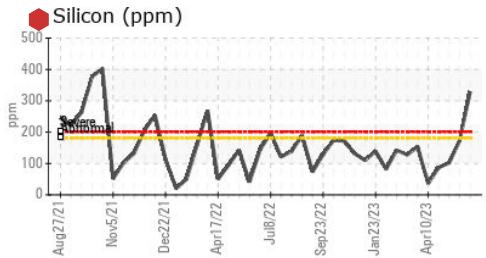
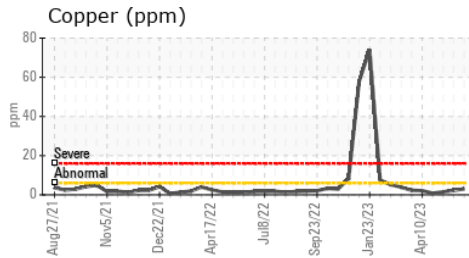
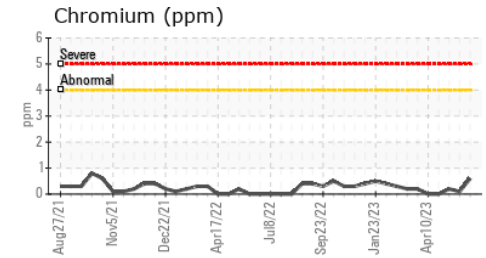
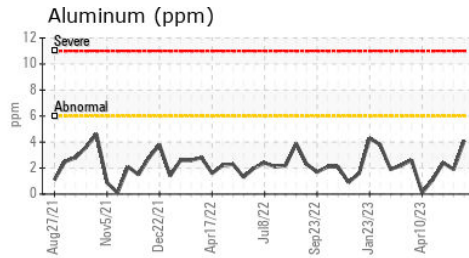
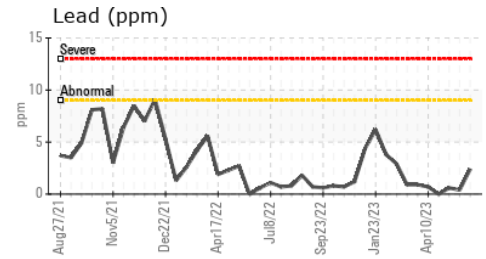
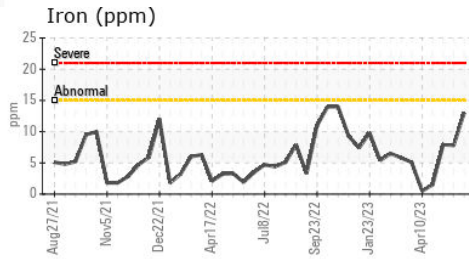
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
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 D445	14.7	13.7	13.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0816130 **Received** : 11 Aug 2023
Lab Number : 05922389 **Diagnosed** : 14 Aug 2023
Unique Number : 10602336 **Diagnostician** : Don Baldrige
Test Package : MOB 2

EDL NA Recips-Covel
 COVEL GARDENS POWER STATION, 8611 COVEL ROAD
 SAN ANTONIO, TX
 US 78252
 Contact: ARIEL CARRION
 ariel.carrion@edlenergy.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: