

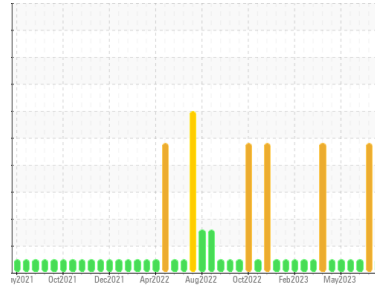


OIL ANALYSIS REPORT



Area
EDLCOV
Machine Id
COVM02BE (S/N GZJ00184)
Component
Biogas Engine
Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (141 GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0816131	WC0722577	WC0816097
Sample Date	Client Info		09 Aug 2023	21 Jul 2023	10 Jul 2023
Machine Age	hrs	Client Info	308728	130103	129856
Oil Age	hrs	Client Info	211	129040	129040
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			NORMAL	SEVERE	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	2	7	6
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	3	3	3
Lead	ppm	ASTM D5185m	>9	3	6	4
Copper	ppm	ASTM D5185m	>6	1	4	3
Tin	ppm	ASTM D5185m	>4	2	3	3
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		7	7	5
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		7	8	7
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		39	36	32
Calcium	ppm	ASTM D5185m		1725	1895	1806
Phosphorus	ppm	ASTM D5185m		298	304	283
Zinc	ppm	ASTM D5185m		357	360	369
Sulfur	ppm	ASTM D5185m		2282	2457	2236

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>181	101	242	174
Sodium	ppm	ASTM D5185m		9	12	<1
Potassium	ppm	ASTM D5185m	>20	2	0	1

INFRA-RED

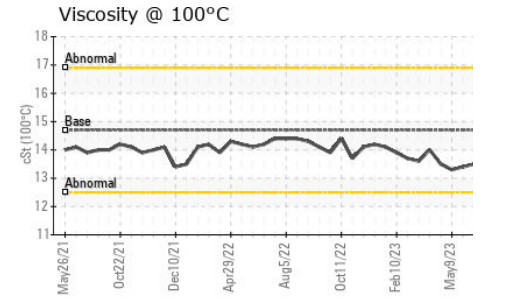
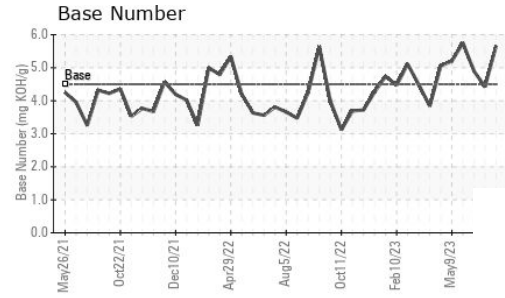
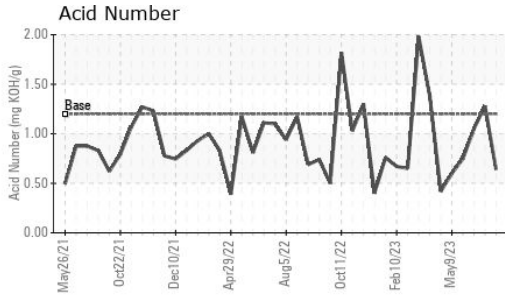
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.2	6.0	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.6	19.1	18.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.2	12.7	11.3
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	0.64	1.28	1.05
Base Number (BN)	mg KOH/g	ASTM D2896	4.5	5.66	4.42	4.90



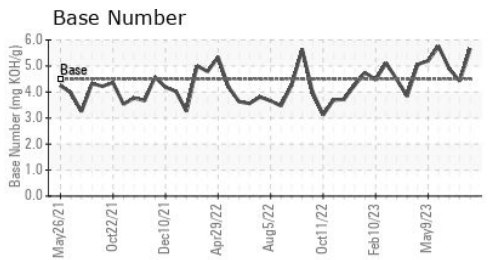
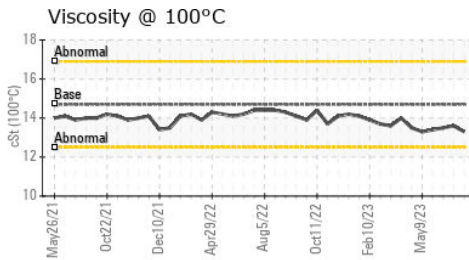
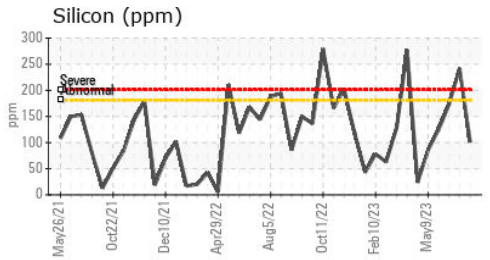
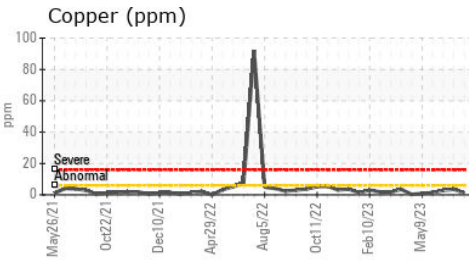
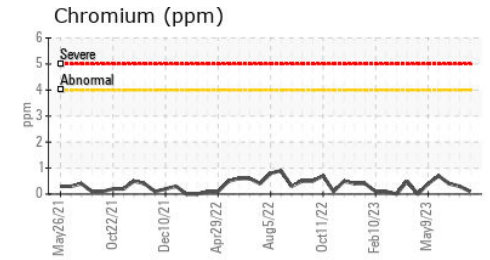
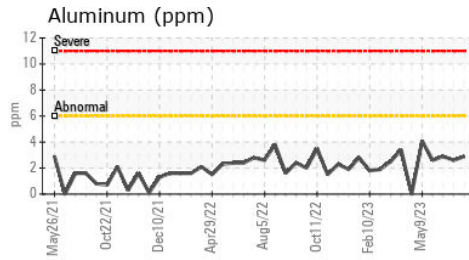
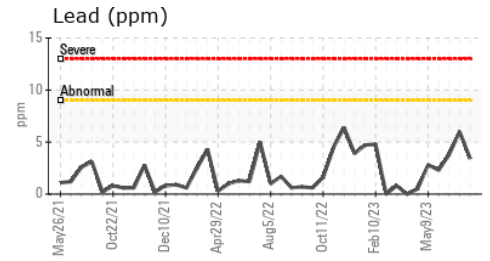
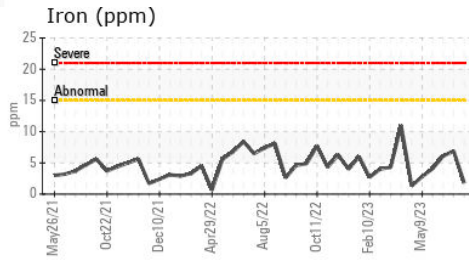
OIL ANALYSIS REPORT



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	13.3	13.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0816131
 Lab Number : 05922391
 Unique Number : 10602338
 Test Package : MOB 2

EDL NA Recips-Covel
 COVEL GARDENS POWER STATION, 8611 COVEL ROAD
 SAN ANTONIO, TX
 US 78252
 Contact: JIMMY ROMINE
 jimmy.romine@energydi.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)

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