

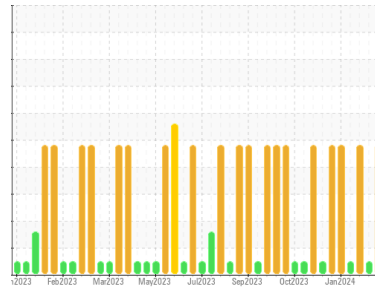


OIL ANALYSIS REPORT



Machine Id
SAVM03BE (S/N GZJ00168)
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (141 GAL)

Sample Rating Trend



DIRT



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		WC0788906	WC0788903	WC0788900
Sample Date	Client Info		02 Apr 2024	14 Mar 2024	20 Feb 2024
Machine Age	hrs	Client Info	175604	175185	174649
Oil Age	hrs	Client Info	630	211	595
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			SEVERE	NORMAL	SEVERE

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 D5185m >14	4	<1	4
Chromium	ppm	ASTM D5185m >3	0	0	<1
Nickel	ppm	ASTM D5185m	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >5	2	1	<1
Lead	ppm	ASTM D5185m >8	0	2	1
Copper	ppm	ASTM D5185m >5	1	<1	2
Tin	ppm	ASTM D5185m >3	1	<1	3
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	8	8	3
Barium	ppm	ASTM D5185m	0	0	5
Molybdenum	ppm	ASTM D5185m	10	9	7
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	25	22	11
Calcium	ppm	ASTM D5185m	1859	1786	1474
Phosphorus	ppm	ASTM D5185m	257	271	210
Zinc	ppm	ASTM D5185m	350	320	300
Sulfur	ppm	ASTM D5185m	1992	1895	1624

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >180	▲ 220	103	▲ 209
Sodium	ppm	ASTM D5185m >20	1	1	0
Potassium	ppm	ASTM D5185m >20	0	0	2

INFRA-RED

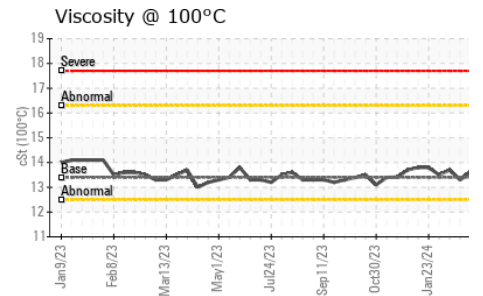
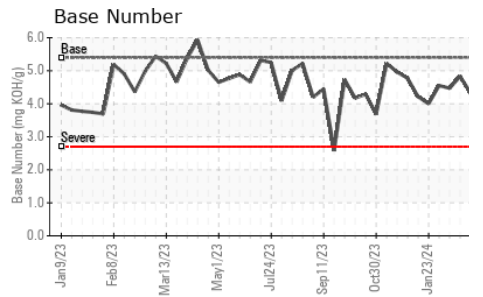
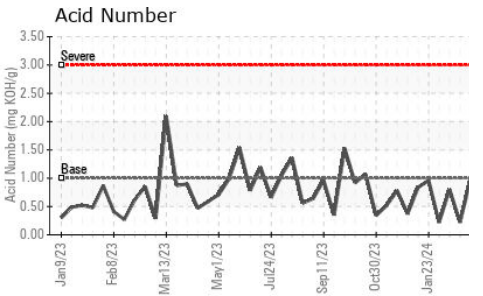
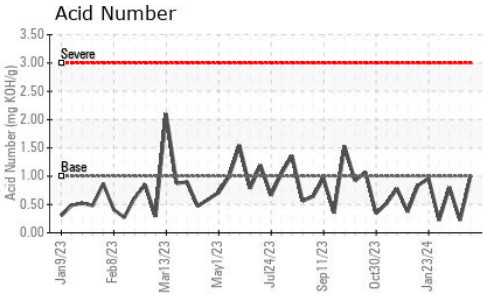
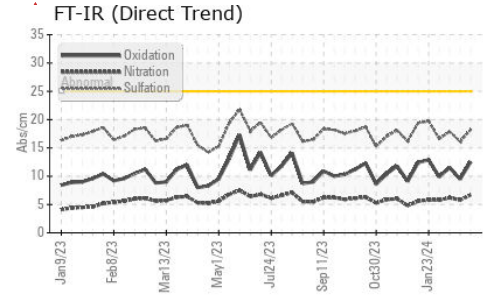
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624	6.7	5.8	6.2
Sulfation	Abs/.1mm	*ASTM D7415	18.2	16.1	17.9

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	12.5	9.5	11.5
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	1.00	0.22	0.80
Base Number (BN)	mg KOH/g	ASTM D2896 5.4	4.32	4.83	4.47



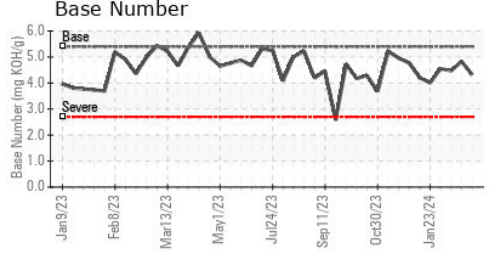
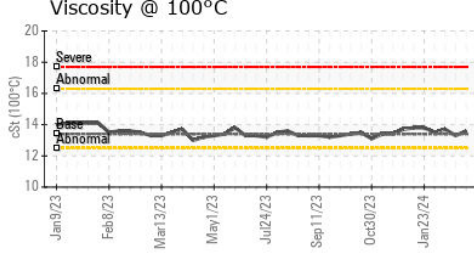
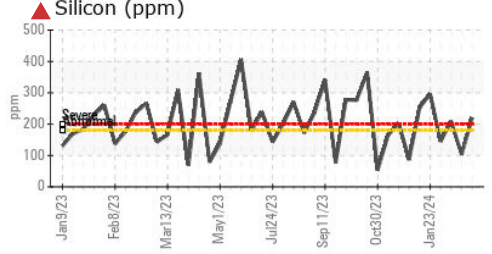
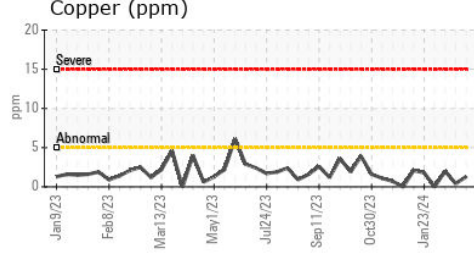
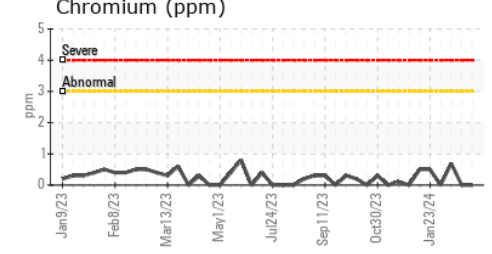
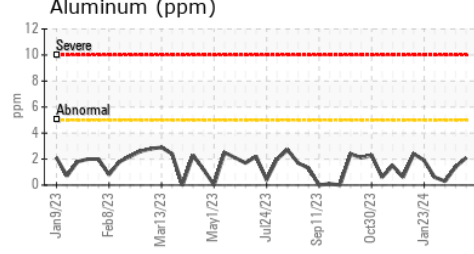
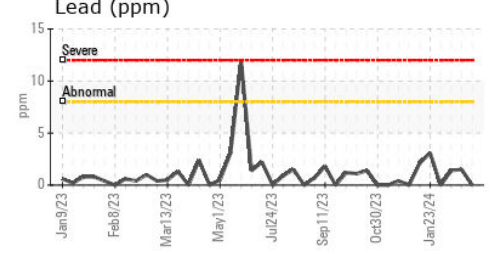
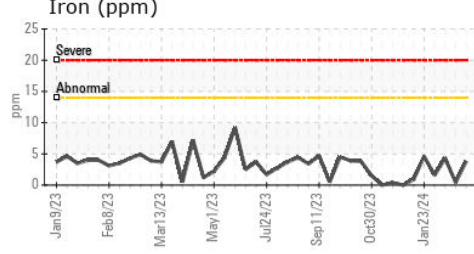
OIL ANALYSIS REPORT



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	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.4	13.6	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0788906
 Lab Number : 06138732
 Unique Number : 10963540
 Test Package : MOB 2

EDL NA Recips-Sand Valley
 SAND VALLEY POWER STATION, 3345 COUNTY ROAD 209
 COLLINSVILLE, AL 35961
 Contact: BRANDON PEYTON
 brandon.peyton@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)