

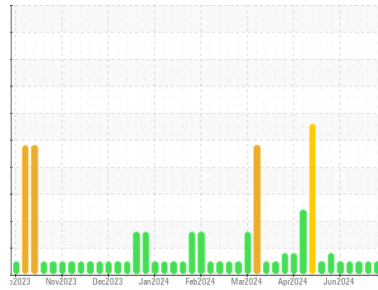


OIL ANALYSIS REPORT



Machine Id
SJNM01BE
 Component
Biogas Engine
 Fluid
CHEVRON HDAX 9500 GAS ENGINE OIL 40 (--- 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		WC0865769	WC0865773	WC0865784
Sample Date	Client Info		12 Jul 2024	03 Jul 2024	27 Jun 2024
Machine Age	hrs	Client Info	73664	73467	73329
Oil Age	hrs	Client Info	500	303	165
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

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
PQ	ASTM D8184		21	18	---
Iron	ppm	ASTM D5185m >14	4	3	1
Chromium	ppm	ASTM D5185m >3	0	<1	<1
Nickel	ppm	ASTM D5185m	0	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >5	2	2	2
Lead	ppm	ASTM D5185m >8	<1	2	1
Copper	ppm	ASTM D5185m >5	<1	1	1
Tin	ppm	ASTM D5185m >3	2	2	1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	71	30	4
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	1	2	2
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	9	11	11
Calcium	ppm	ASTM D5185m	1980	1944	1837
Phosphorus	ppm	ASTM D5185m	353	316	304
Zinc	ppm	ASTM D5185m	427	401	371
Sulfur	ppm	ASTM D5185m	3115	2299	2243

CONTAMINANTS

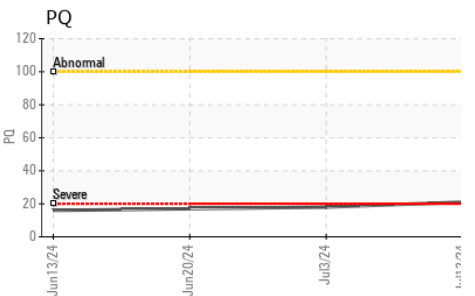
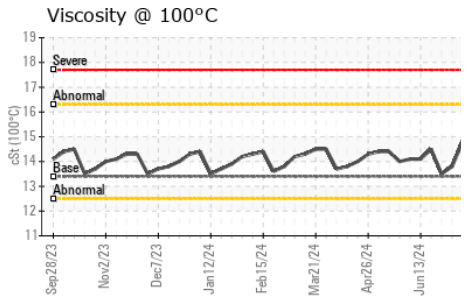
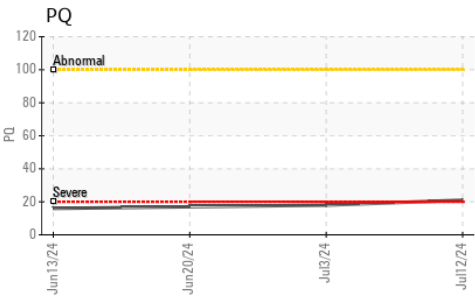
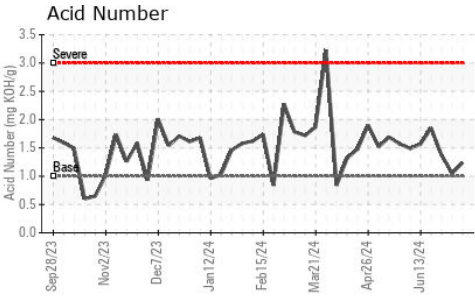
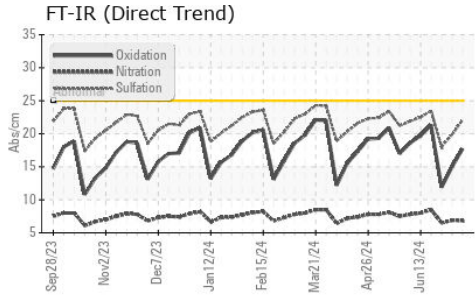
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >180	145	104	59
Sodium	ppm	ASTM D5185m >20	2	0	<1
Potassium	ppm	ASTM D5185m >20	<1	3	3

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	6.8	6.9	6.5
Sulfation	Abs/.1mm	*ASTM D7415	22.1	19.9	18.0



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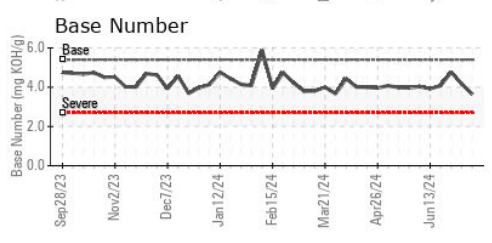
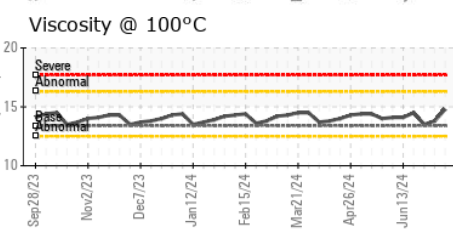
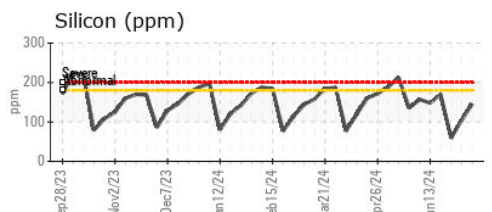
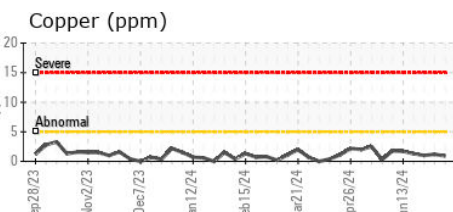
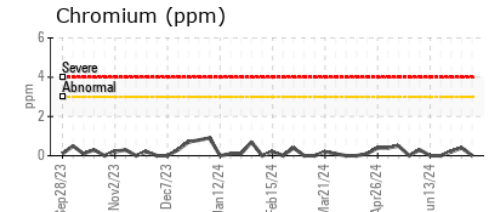
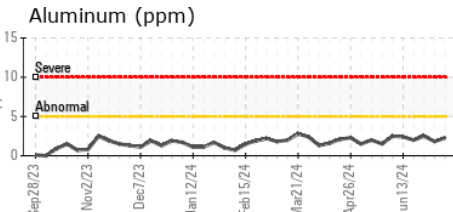
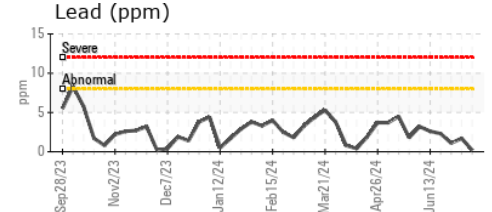
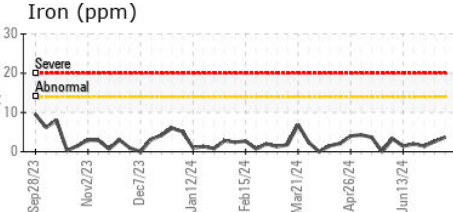


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	*ASTM D7414	17.7	15.0	11.9
Acid Number (AN)	mg KOH/g	ASTM D8045	1.24	1.05	1.37
Base Number (BN)	mg KOH/g	ASTM D2896	3.64	4.17	4.77

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	14.8	13.8	13.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0865769 **Received** : 16 Jul 2024
Lab Number : **06237988** **Tested** : 18 Jul 2024
Unique Number : 11126822 **Diagnosed** : 18 Jul 2024 - Sean Felton
Test Package : MOB 2 (Additional Tests: PQ)

EDL NA Recips-South Jordan
 South Jordan Powerstation, 10473 S. Bacchus Hwy.
 South Jordan, UT
 US 84095
 Contact: Aaron Klein
 aaron.klein@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)