



LEAHY-WOLF
Lubricating specialists since 1946

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
CCC 291

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0008629	LW0007843	LW0007219
Sample Date		Client Info		27 Jan 2024	06 Nov 2023	16 Jun 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	7	1	7
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	1
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	1	<1	0
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

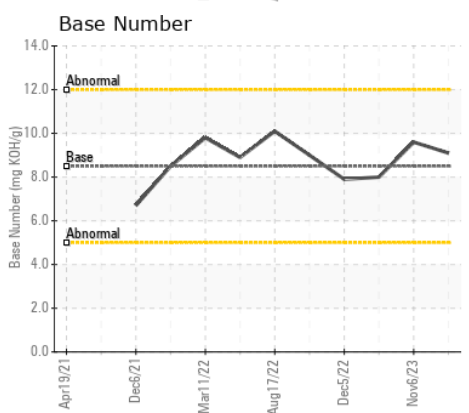
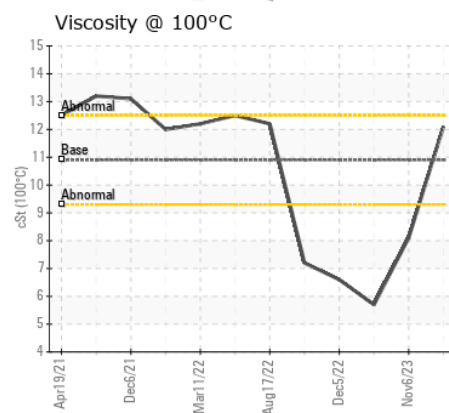
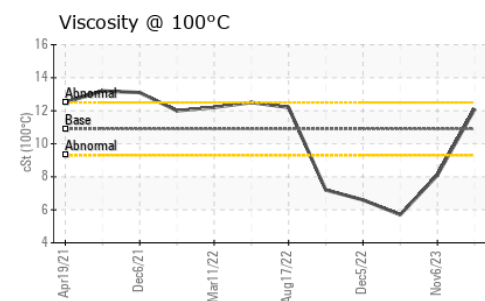
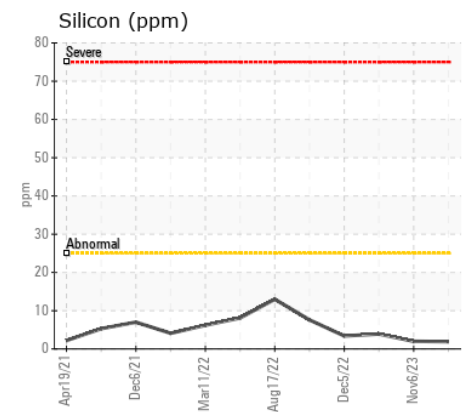
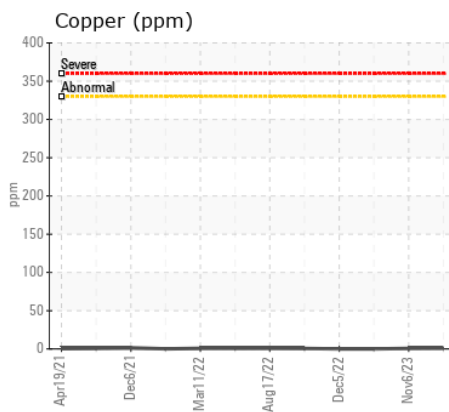
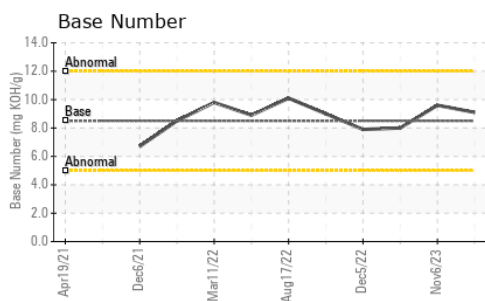
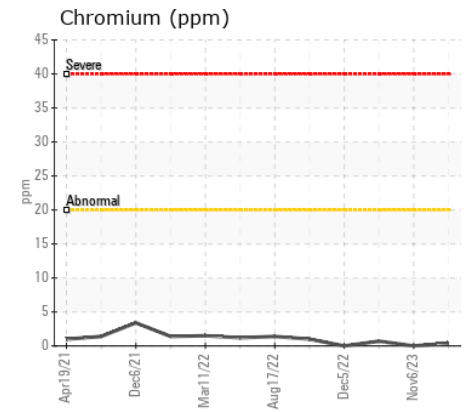
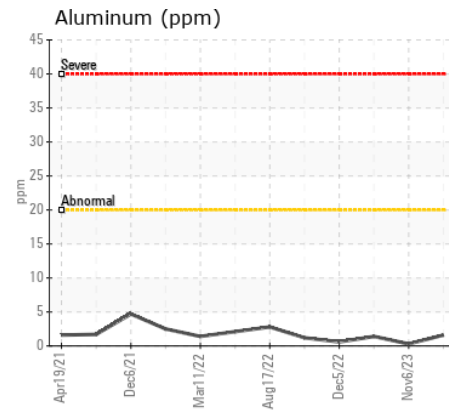
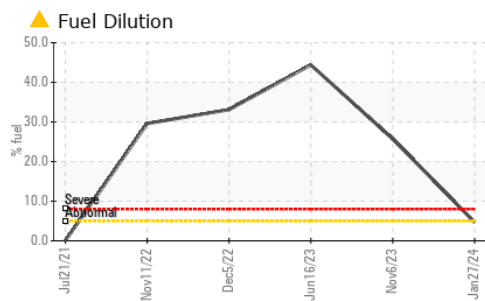
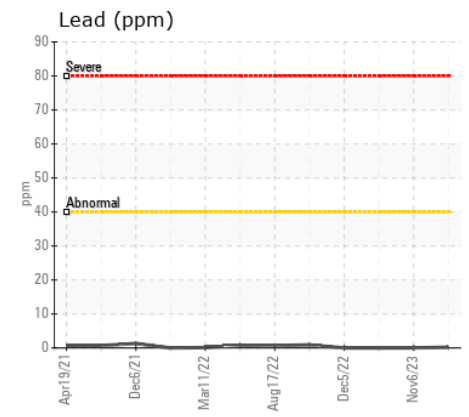
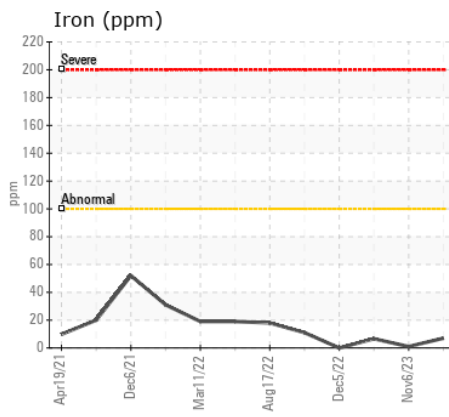
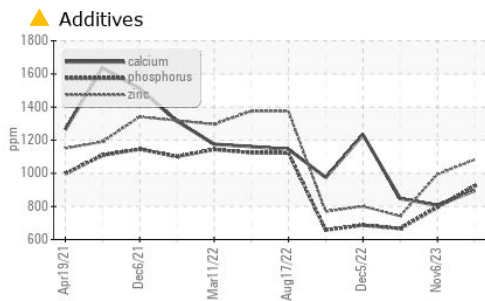
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	2	2	4
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Fuel	%	ASTM D3524	>5	▲ 4.7	● 25.7	● 44.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.5	5.9	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	16.2	17.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

Calcium ppm levels are abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>75	0	<1	1
Boron	ppm	ASTM D5185m	250	6	2	39
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	54	44	10
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	450	814	760	419
Calcium	ppm	ASTM D5185m	3000	▲ 896	▲ 807	▲ 848
Phosphorus	ppm	ASTM D5185m	1150	922	794	▲ 666
Zinc	ppm	ASTM D5185m	1350	1082	993	▲ 742
Sulfur	ppm	ASTM D5185m	4250	3554	2434	2679
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	11.1	12.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.1	9.6	8.0
Visc @ 100°C	cSt	ASTM D445	10.9	12.1	▲ 8.1	● 5.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0008629 **Received** : 01 Feb 2024
Lab Number : 06076730 **Tested** : 05 Feb 2024
Unique Number : 10858821 **Diagnosed** : 05 Feb 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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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)