



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
282 (S/N 1XKWP4TX4MR428763)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

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		WC0893937	WC0867916	WC0804072
Sample Date		Client Info		09 Apr 2024	03 Jan 2024	08 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	NORMAL	NORMAL

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	41	35	39
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 21	15	14
Lead	ppm	ASTM D5185m	>40	4	6	2
Copper	ppm	ASTM D5185m	>330	0	1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

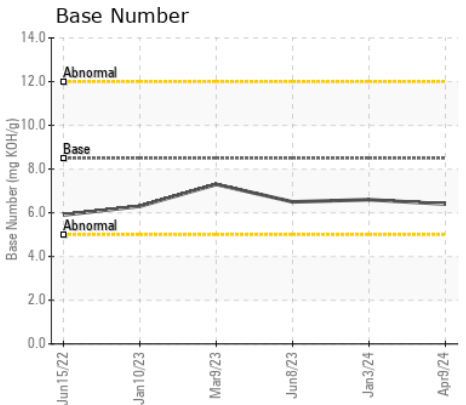
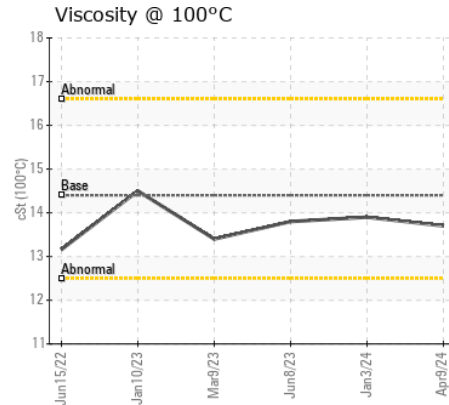
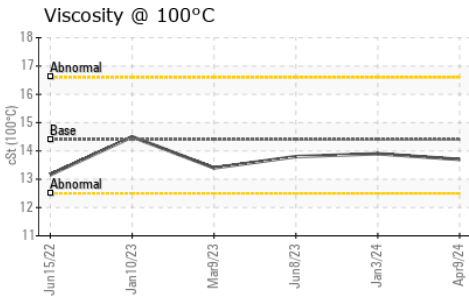
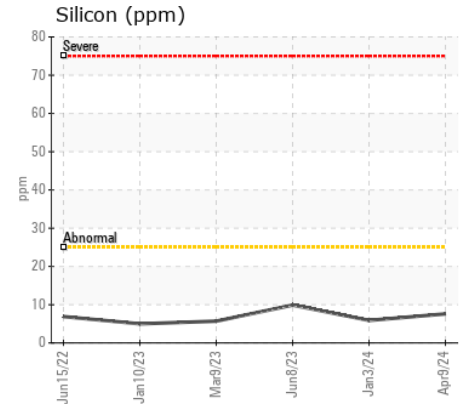
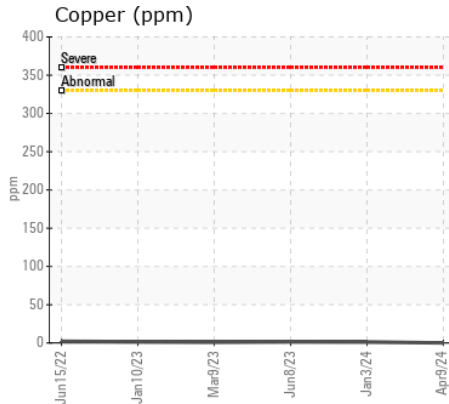
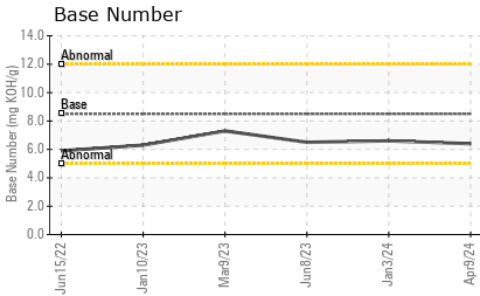
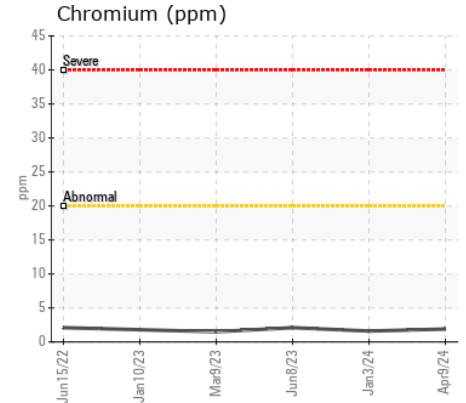
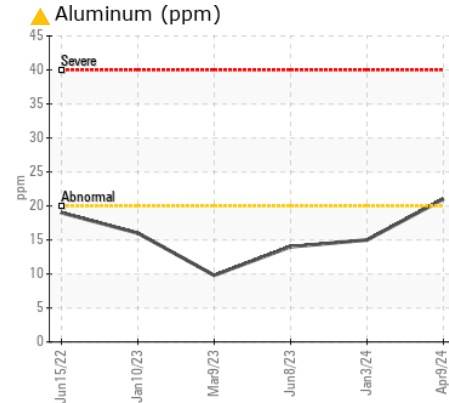
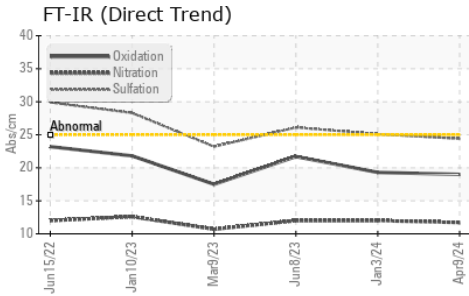
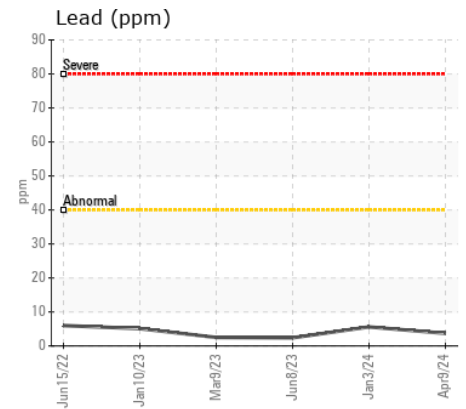
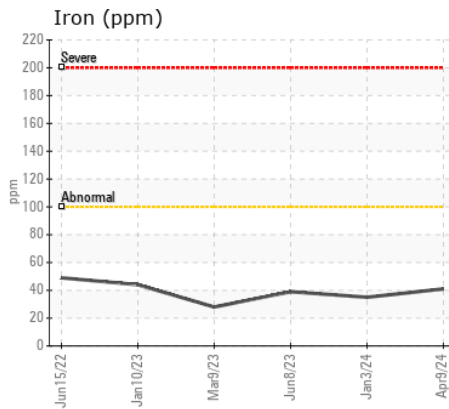
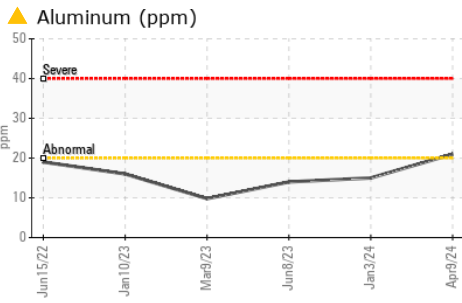
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	6	10
Potassium	ppm	ASTM D5185m	>20	51	5	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.3	1.4	1.5
Nitration	Abs/cm	*ASTM D7624	>20	11.7	12.0	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	25.1	26.1
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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	52	0	2
Boron	ppm	ASTM D5185m	250	11	6	7
Barium	ppm	ASTM D5185m	10	0	10	0
Molybdenum	ppm	ASTM D5185m	100	75	65	67
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	769	854	1008
Calcium	ppm	ASTM D5185m	3000	1398	1212	1201
Phosphorus	ppm	ASTM D5185m	1150	1106	1127	1108
Zinc	ppm	ASTM D5185m	1350	1310	1213	1374
Sulfur	ppm	ASTM D5185m	4250	3598	3335	3571
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	19.3	21.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.4	6.6	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	13.9	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0893937 **Received** : 10 Apr 2024
Lab Number : 06145217 **Tested** : 11 Apr 2024
Unique Number : 10970025 **Diagnosed** : 13 Apr 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: 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)

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