



OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
DODGE M31715
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (12 QTS)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0036405	DC0028258	DC0026319
Sample Date		Client Info		13 May 2024	07 Nov 2023	03 Jul 2023
Machine Age	mls	Client Info		187926	170160	163989
Oil Age	mls	Client Info		0	4514	4160
Filter Age	mls	Client Info		0	4514	4160
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

Iron ppm levels are noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	105	31	52
Chromium	ppm	ASTM D5185m	>10	3	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	8	5	4
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>300	3	<1	1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

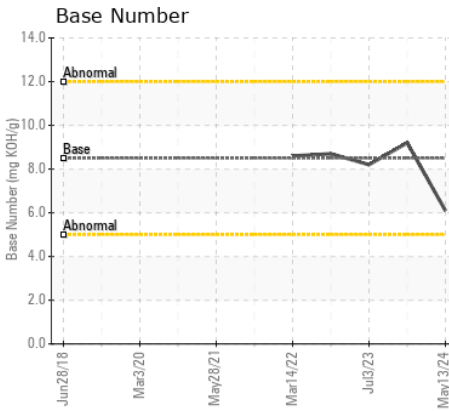
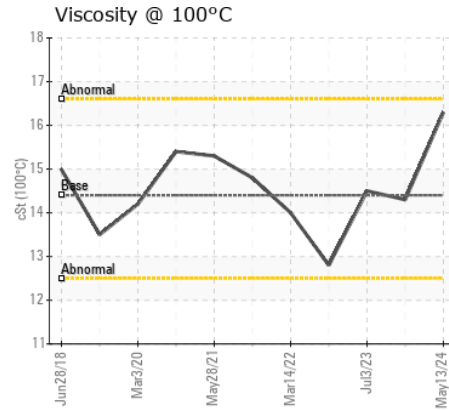
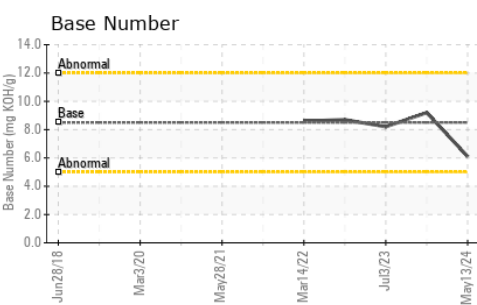
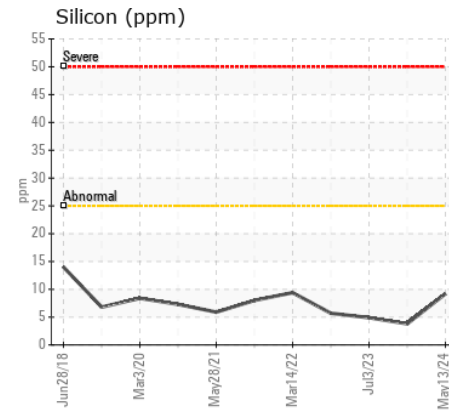
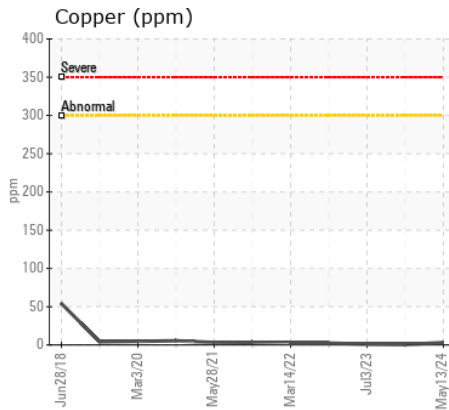
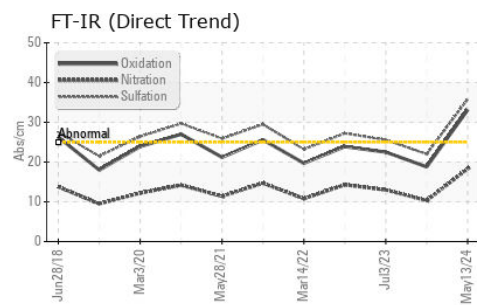
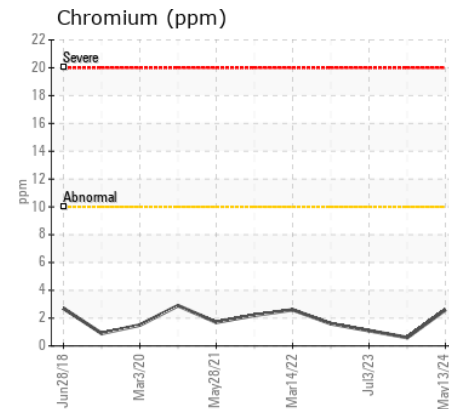
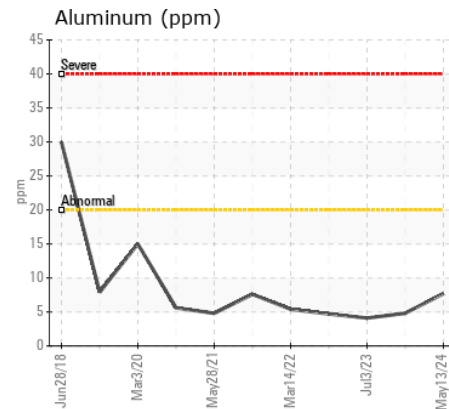
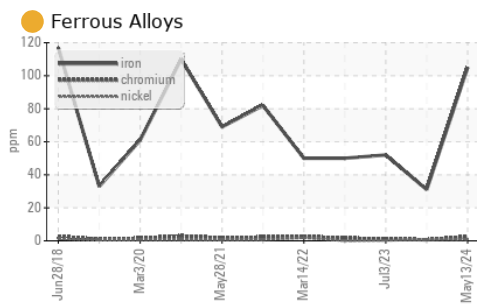
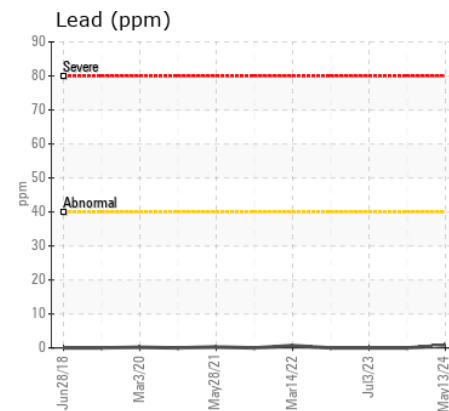
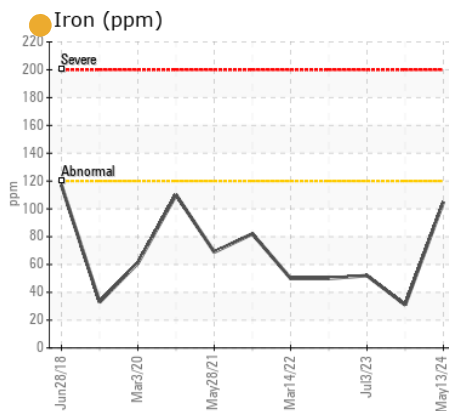
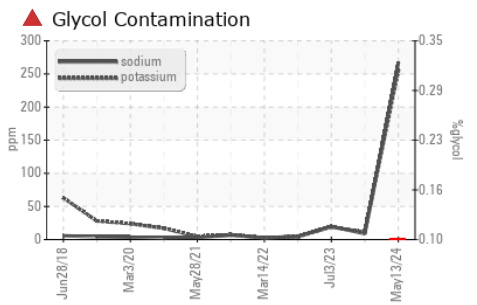
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	9	4	5
Potassium	ppm	ASTM D5185m	>20	254	11	19
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	NEG	NEG
Soot %	%	*ASTM D7844		3.4	1	1.4
Nitration	Abs/cm	*ASTM D7624	>20	18.3	10.3	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	35.8	22.0	25.6
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>158	267	9	20
Boron	ppm	ASTM D5185m	250	<1	3	<1
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	79	61	70
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	450	1032	991	1146
Calcium	ppm	ASTM D5185m	3000	1262	1053	1238
Phosphorus	ppm	ASTM D5185m	1150	1120	1102	1206
Zinc	ppm	ASTM D5185m	1350	1332	1352	1566
Sulfur	ppm	ASTM D5185m	4250	3233	3070	3994
Oxidation	Abs/.1mm	*ASTM D7414	>25	33.1	18.8	22.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.1	9.2	8.2
Visc @ 100°C	cSt	ASTM D445	14.4	16.3	14.3	14.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0036405 **Received** : 29 May 2024
Lab Number : 06194829 **Tested** : 31 May 2024
Unique Number : 11056952 **Diagnosed** : 31 May 2024 - Angela Borella
Test Package : MOB 1 (Additional Tests: Glycol, TBN)
 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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