



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
M32021
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.

WEAR

Metal levels are typical for a new component breaking in.

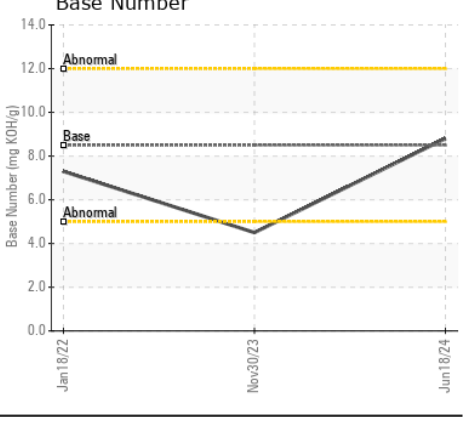
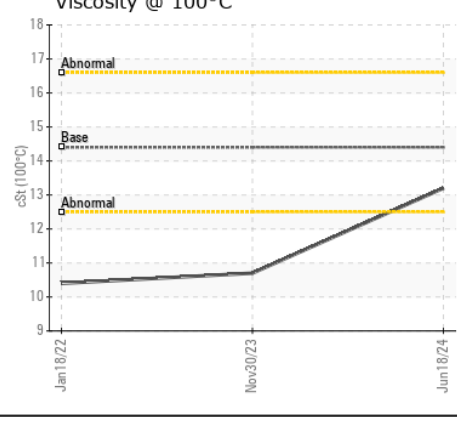
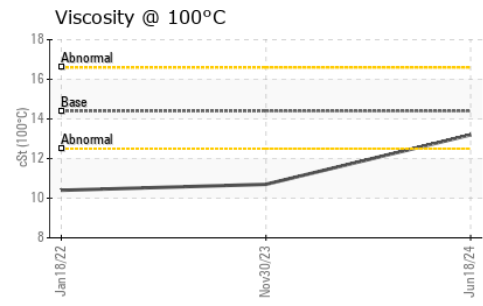
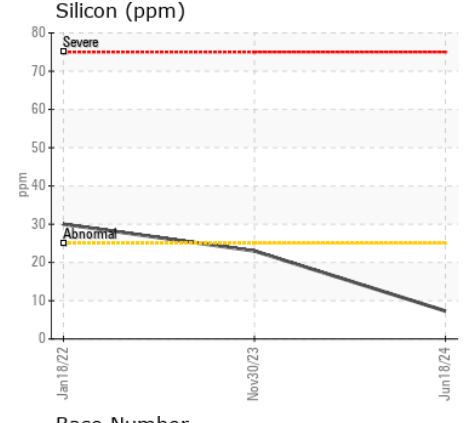
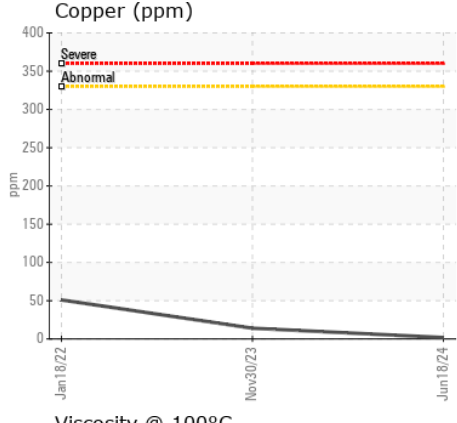
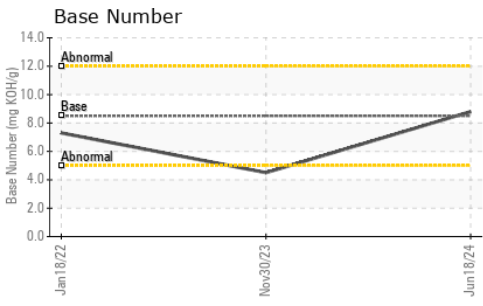
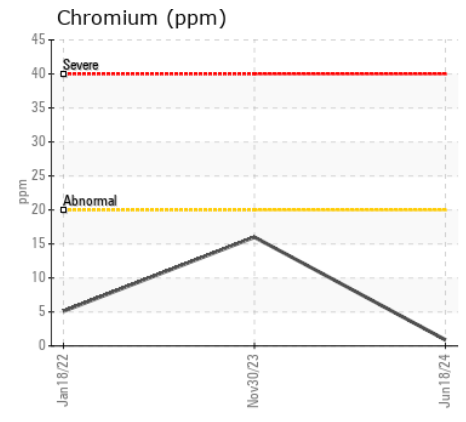
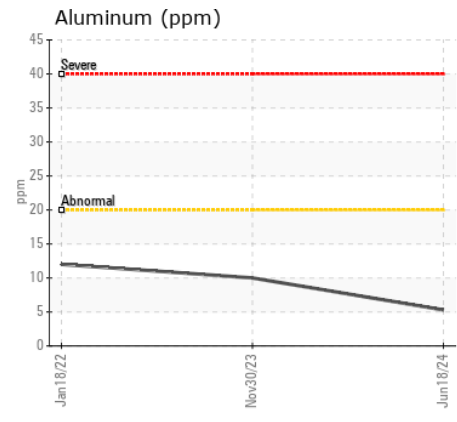
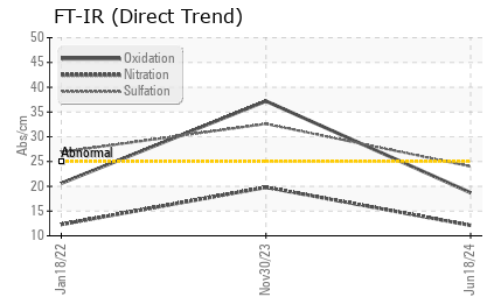
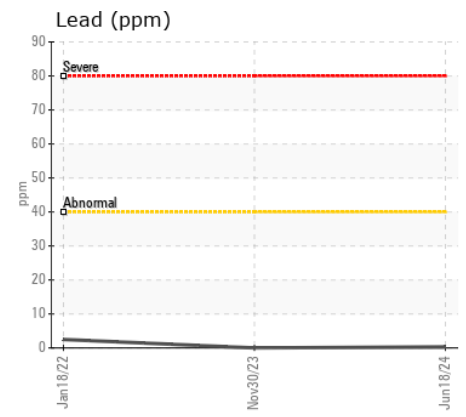
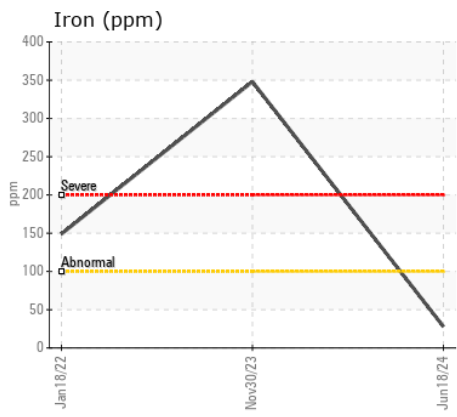
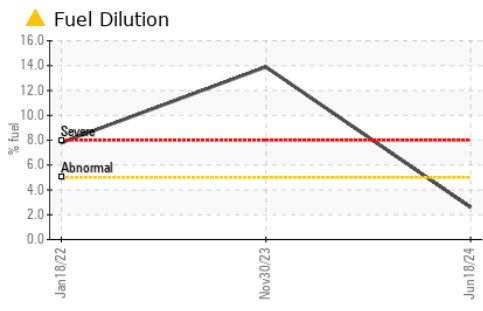
CONTAMINATION

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

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0034080	DC0032037	DC0016846
Sample Date		Client Info		18 Jun 2024	30 Nov 2023	18 Jan 2022
Machine Age	mls	Client Info		33709	24144	5812
Oil Age	mls	Client Info		3942	2832	651
Filter Age	mls	Client Info		3942	2832	651
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>100	28	▲ 348	▲ 149
Chromium	ppm	ASTM D5185m	>20	<1	16	5
Nickel	ppm	ASTM D5185m	>4	<1	2	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	2	11
Aluminum	ppm	ASTM D5185m	>20	5	10	12
Lead	ppm	ASTM D5185m	>40	<1	0	2
Copper	ppm	ASTM D5185m	>330	2	14	51
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	23	30
Potassium	ppm	ASTM D5185m	>20	4	3	7
Fuel	%	ASTM D3524	>5	▲ 2.6	▲ 13.9	▲ 7.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.4	1.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	12.1	19.8	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	32.6	26.9
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
Sodium	ppm	ASTM D5185m	>158	4	12	13
Boron	ppm	ASTM D5185m	250	10	28	35
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	56	1	2
Manganese	ppm	ASTM D5185m		<1	7	9
Magnesium	ppm	ASTM D5185m	450	804	412	699
Calcium	ppm	ASTM D5185m	3000	1230	1572	1452
Phosphorus	ppm	ASTM D5185m	1150	978	845	1030
Zinc	ppm	ASTM D5185m	1350	1204	995	1119
Sulfur	ppm	ASTM D5185m	4250	3052	2253	2781
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	37.2	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.8	4.5	7.3
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	▲ 10.7	▲ 10.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0034080 **Received** : 10 Jul 2024
Lab Number : 06232110 **Tested** : 12 Jul 2024
Unique Number : 11115603 **Diagnosed** : 12 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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Certificate L2367
 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)