



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
M113
 Machine Id
06D0309266
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- LTR)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. (Customer Sample Comment: 41973 7292.6 km/217.1 hrs)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0876140	WC877406	WC877213
Sample Date		Client Info		29 Apr 2024	17 Jul 2023	29 Nov 2022
Machine Age	kms	Client Info		7012	7012	0
Oil Age	kms	Client Info		0	0	25
Filter Age	kms	Client Info		0	0	150
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>101	15	5	4
Chromium	ppm	ASTM D5185(m)	>16	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>6	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>21	2	2	2
Lead	ppm	ASTM D5185(m)	>41	2	1	4
Copper	ppm	ASTM D5185(m)	>21	3	2	<1
Tin	ppm	ASTM D5185(m)	>13	3	1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

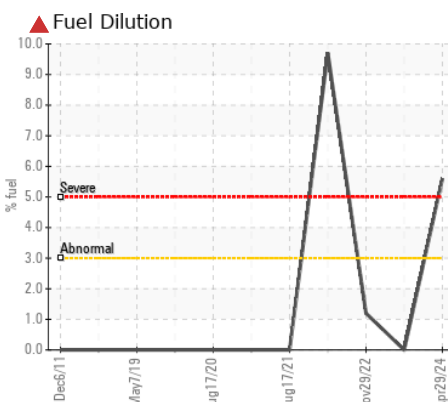
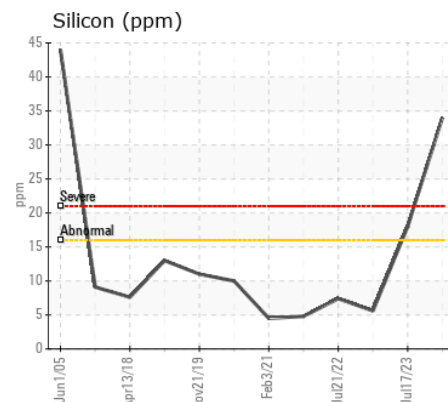
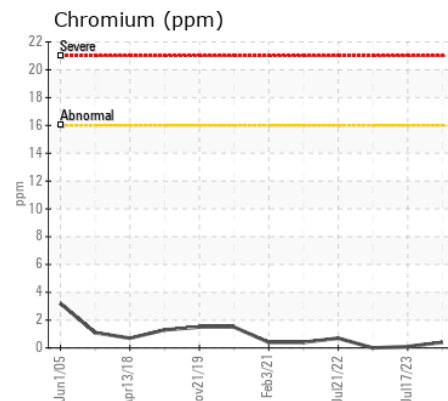
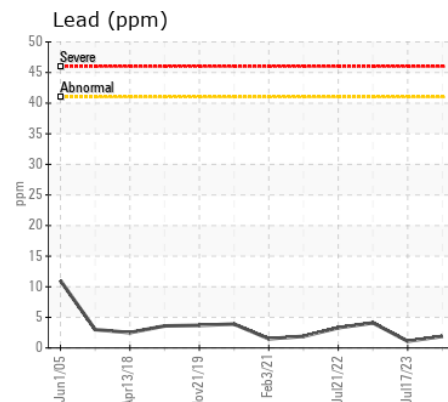
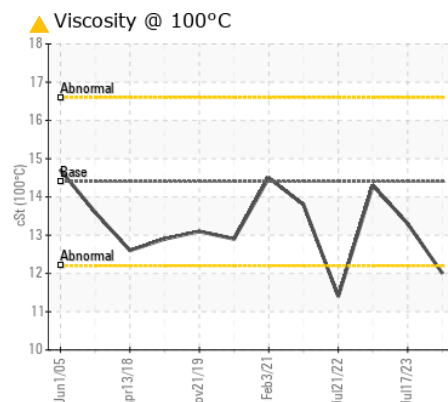
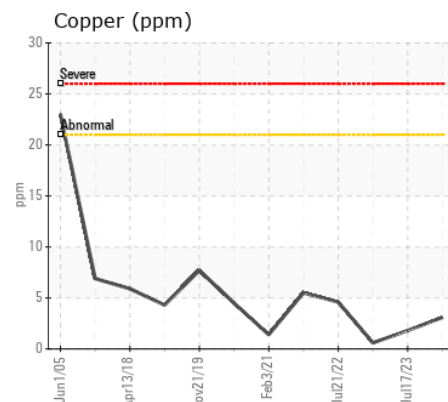
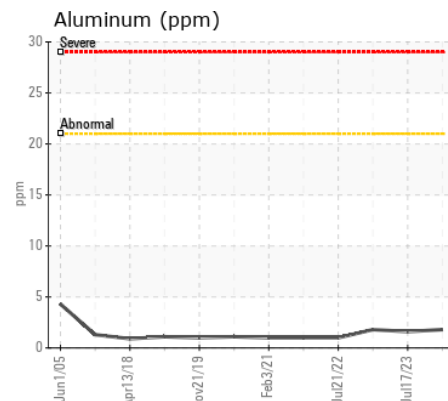
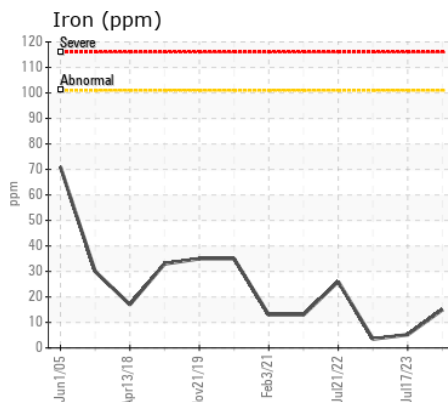
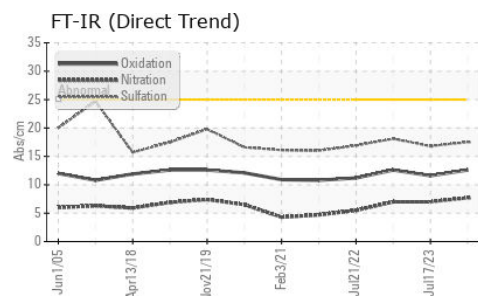
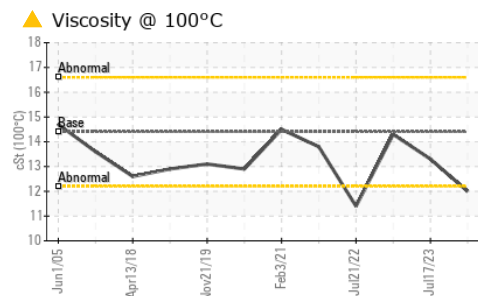
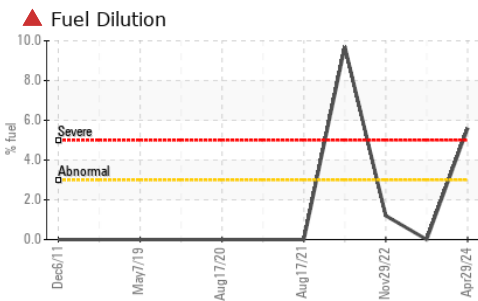
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>16	34	18	6
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>3.0	▲ 5.6	<1.0	1.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>0.8	0.1	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.7	7.0	7.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.5	16.8	18.1
Silt	scalar	Visual*	NONE	VLITE	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	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>158	3	2	2
Boron	ppm	ASTM D5185(m)	250	44	64	71
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	16	6	5
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)	450	219	64	46
Calcium	ppm	ASTM D5185(m)	3000	1813	2039	2134
Phosphorus	ppm	ASTM D5185(m)	1150	900	1005	1023
Zinc	ppm	ASTM D5185(m)	1350	1070	1068	1073
Sulfur	ppm	ASTM D5185(m)	4250	2835	3143	3219
Oxidation	Abs/.1mm	ASTM D7414*	>25	12.6	11.6	12.6
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 12.0	13.3	14.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0876140 **Received** : 20 Jun 2024
Lab Number : 02643071 **Tested** : 21 Jun 2024
Unique Number : 5800610 **Diagnosed** : 21 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.