



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**KOMATSU 76**  
Component  
**Diesel Engine**  
Fluid  
**FLEET GUARD 15W40 (23 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LP0001238</b>	LP0000647	LP0000469
Sample Date		Client Info		<b>02 Feb 2024</b>	18 Oct 2023	25 Aug 2023
Machine Age	hrs	Client Info		<b>17863</b>	17299	17054
Oil Age	hrs	Client Info		<b>273</b>	230	250
Filter Age	hrs	Client Info		<b>273</b>	230	250
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>3</b>	5	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	2	0
Copper	ppm	ASTM D5185m	>330	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

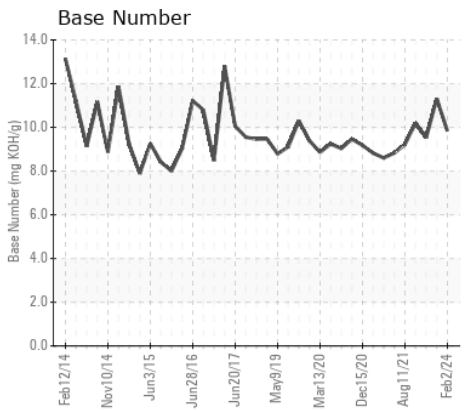
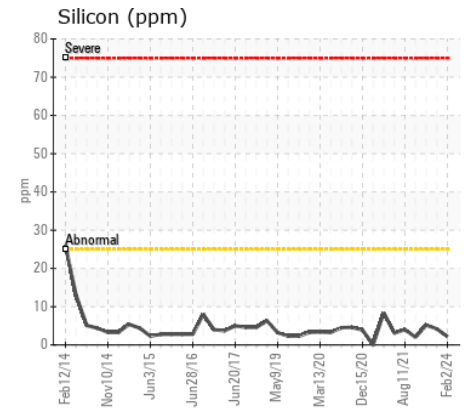
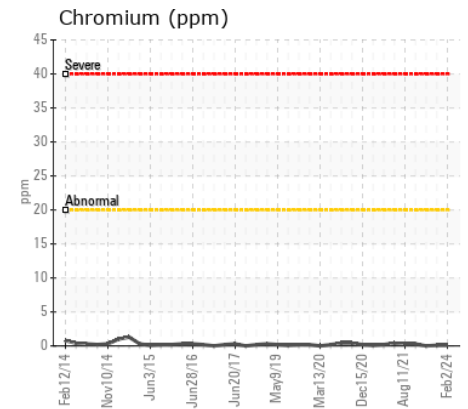
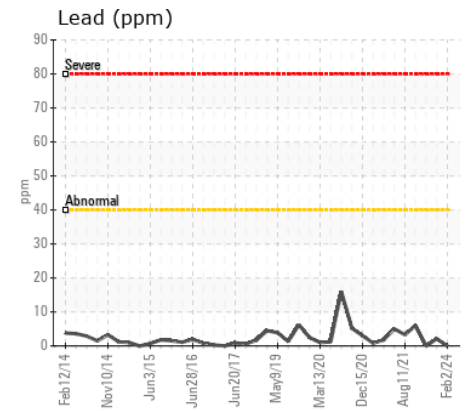
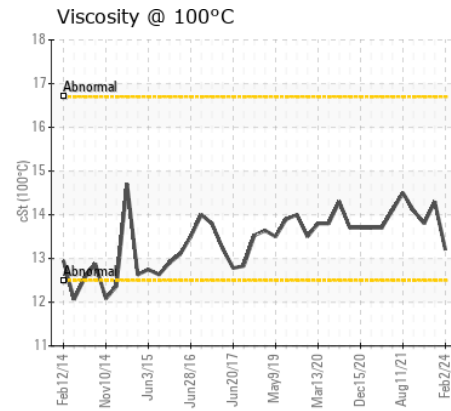
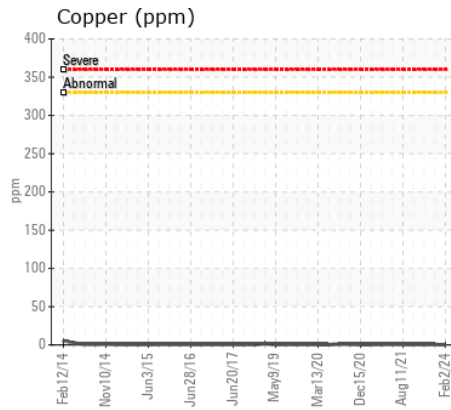
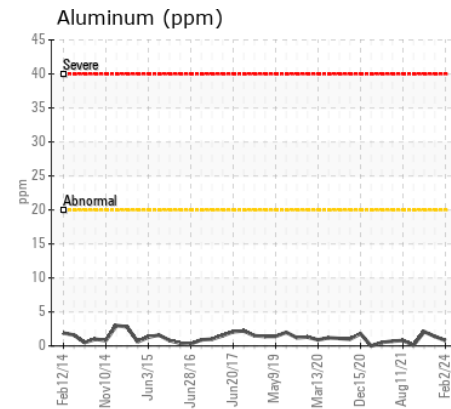
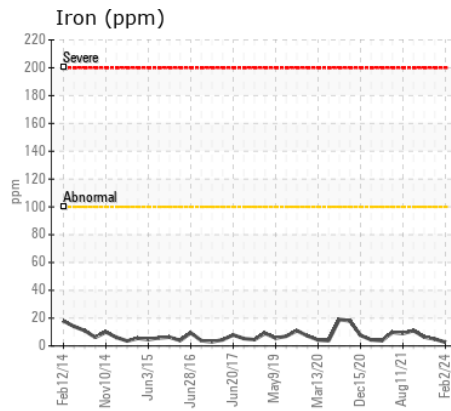
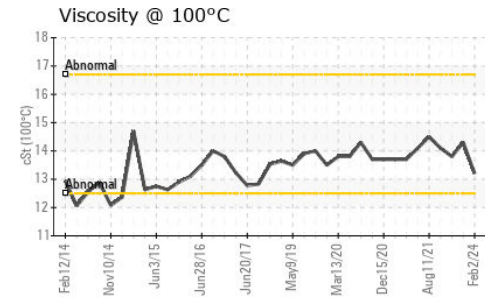
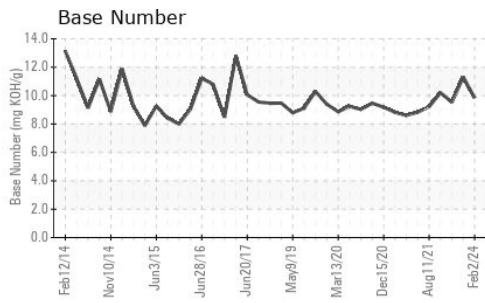
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>2</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1.1</b>	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.6</b>	6.4	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.4</b>	19.0	17.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>0</b>	3	3
Boron	ppm	ASTM D5185m		<b>15</b>	2	18
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>19</b>	59	65
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>168</b>	977	817
Calcium	ppm	ASTM D5185m		<b>1950</b>	1157	1336
Phosphorus	ppm	ASTM D5185m		<b>822</b>	1136	1083
Zinc	ppm	ASTM D5185m		<b>1045</b>	1339	1312
Sulfur	ppm	ASTM D5185m		<b>3297</b>	3403	3546
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.0</b>	13.9	12.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.84</b>	11.31	9.53
Visc @ 100°C	cSt	ASTM D445		<b>13.2</b>	14.3	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LP0001238  
**Lab Number** : 06101150  
**Unique Number** : 10899380  
**Test Package** : MOB 2

**Received** : 26 Feb 2024  
**Tested** : 28 Feb 2024  
**Diagnosed** : 28 Feb 2024 - Wes Davis

**S.M. LORUSSO & SONS**  
 10 GROVE ST  
 WEST ROXBURY, MA  
 US 02132  
 Contact: MARK ERWIN  
 merwin@smlorusso.com

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)

T:  
F: