



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
KOITI CS2220H (S/N XY8600040)
 Component
Diesel Engine
 Fluid
KIOTI 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for visible metal particles in the oil. 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KT0001019	---	---
Sample Date		Client Info		07 Feb 2024	---	---
Machine Age	hrs	Client Info		127	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

WEAR

Aluminum ppm levels are severe. Light concentration of visible metal present. Piston and/or bearing wear is indicated.

Iron	ppm	ASTM D5185(m)	>100	34	---	---
Chromium	ppm	ASTM D5185(m)	>20	1	---	---
Nickel	ppm	ASTM D5185(m)	>4	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	128	---	---
Lead	ppm	ASTM D5185(m)	>40	3	---	---
Copper	ppm	ASTM D5185(m)	>330	18	---	---
Tin	ppm	ASTM D5185(m)	>15	23	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

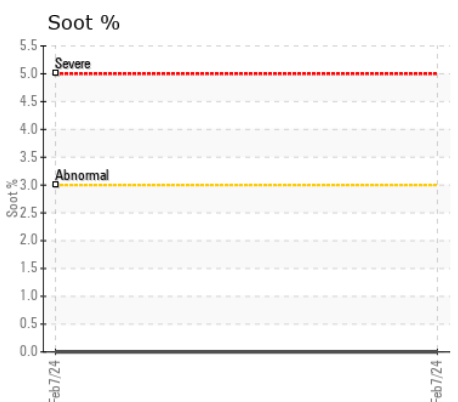
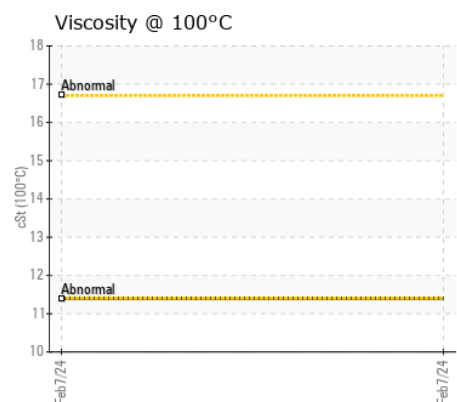
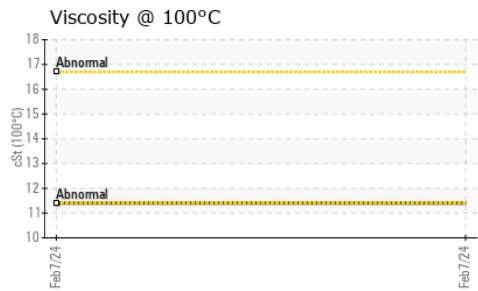
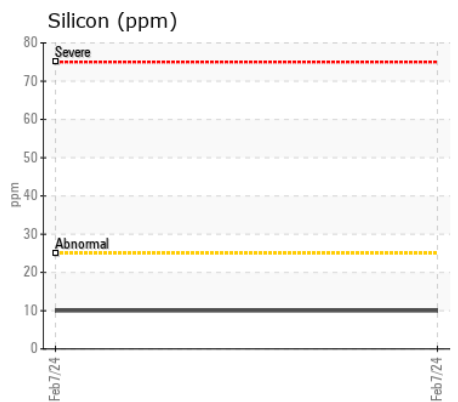
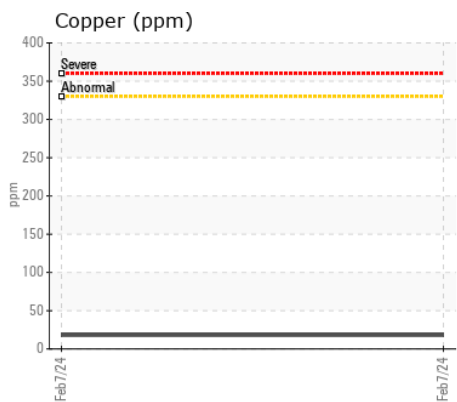
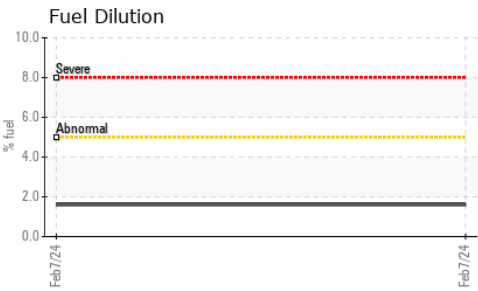
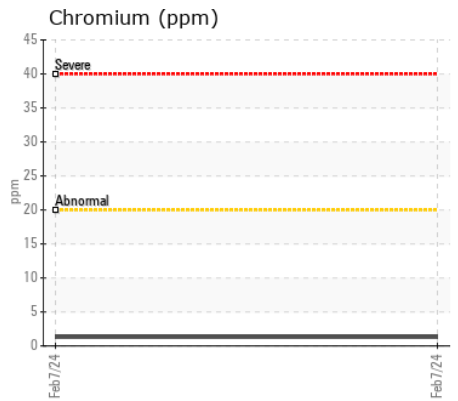
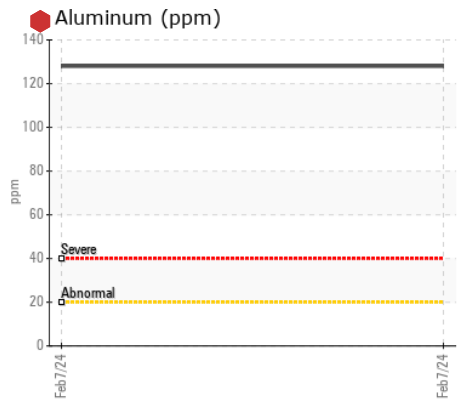
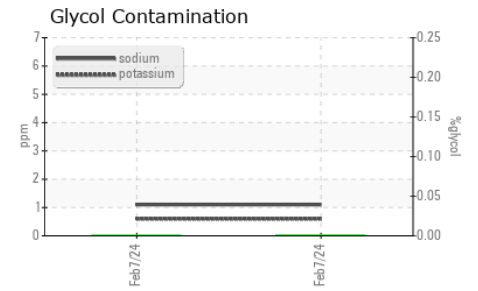
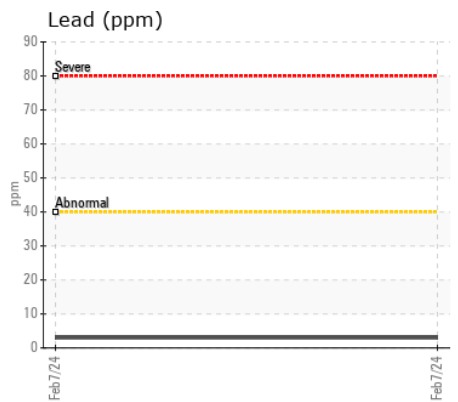
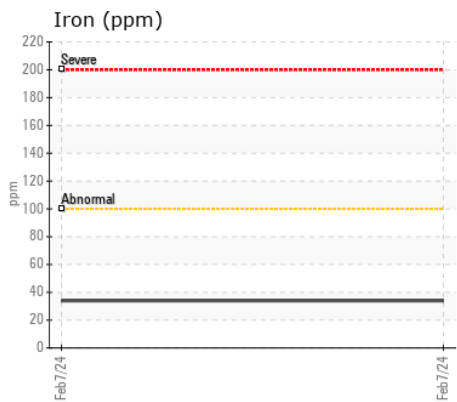
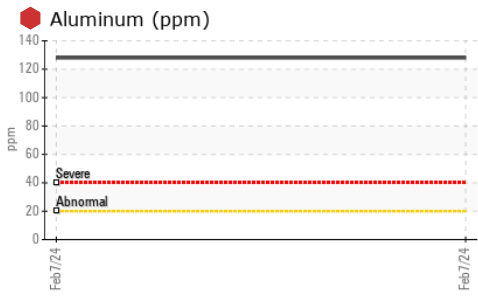
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	10	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel	%	ASTM D7593*	>5	1.6	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	4.6	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.7	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		1	---	---
Boron	ppm	ASTM D5185(m)		101	---	---
Barium	ppm	ASTM D5185(m)		3	---	---
Molybdenum	ppm	ASTM D5185(m)		52	---	---
Manganese	ppm	ASTM D5185(m)		1	---	---
Magnesium	ppm	ASTM D5185(m)		408	---	---
Calcium	ppm	ASTM D5185(m)		1685	---	---
Phosphorus	ppm	ASTM D5185(m)		995	---	---
Zinc	ppm	ASTM D5185(m)		1126	---	---
Sulfur	ppm	ASTM D5185(m)		2952	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.0	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		11.4	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : KT0001019
Lab Number : 02616597
Unique Number : 5733707
Test Package : MOB 1 (Additional Tests: BottomAnalysis, FILTERPATCH, FUELDILUTION, GLYCOL, PercentFuel, Viscosity)
Received : 20 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Kevin Marson

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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.