



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Machine Id
CATERPILLAR AD30 TRK227 (S/N 100016191)
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

The oil 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		WC0884557	WC0899942	WC0879717
Sample Date		Client Info		18 Feb 2024	19 Jan 2024	15 Jan 2024
Machine Age	hrs	Client Info		1691	1271	1204
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	33	35	39
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	2	2	2
Lead	ppm	ASTM D5185(m)	>40	4	11	13
Copper	ppm	ASTM D5185(m)	>330	50	277	383
Tin	ppm	ASTM D5185(m)	>15	<1	1	1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

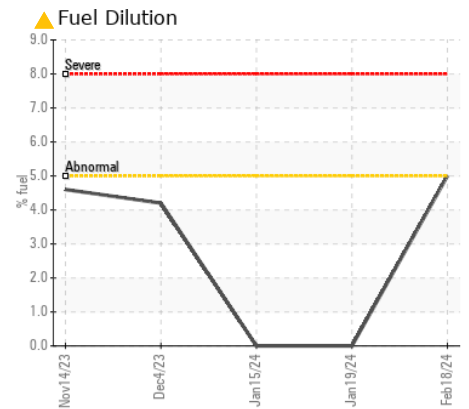
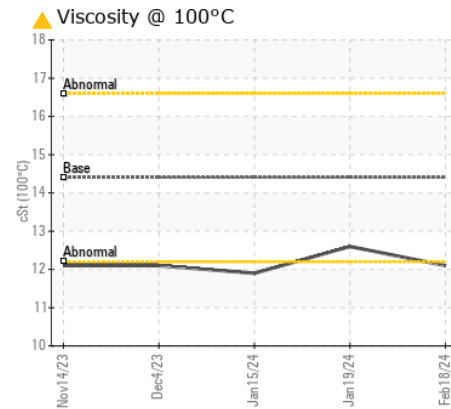
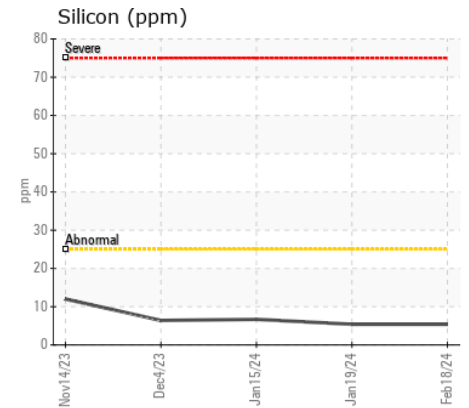
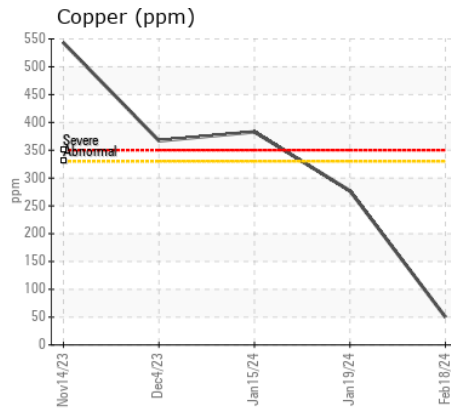
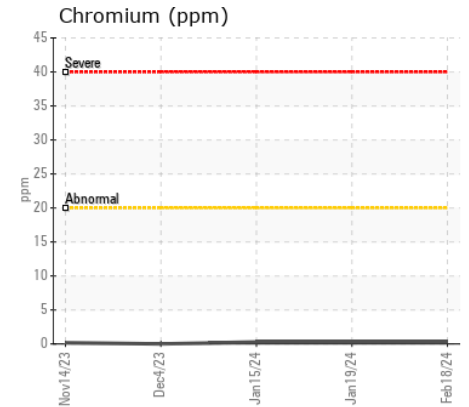
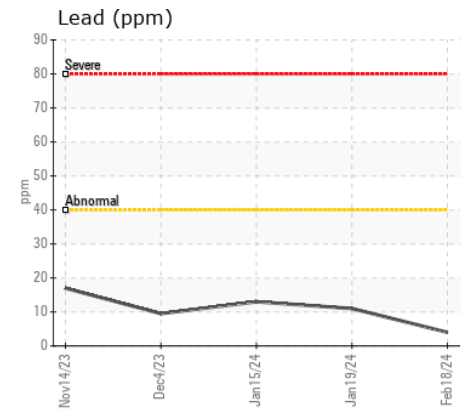
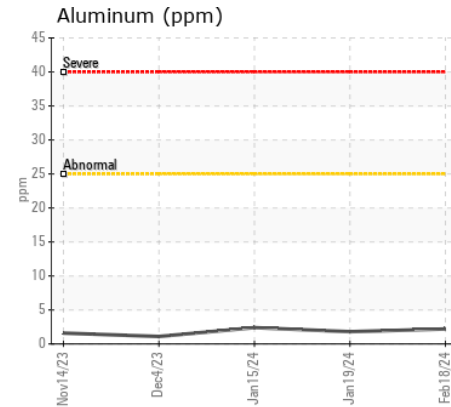
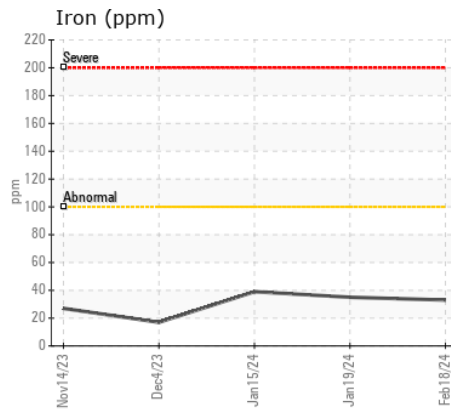
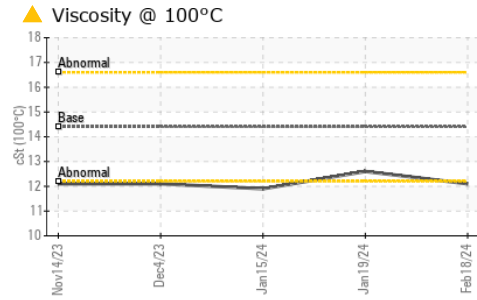
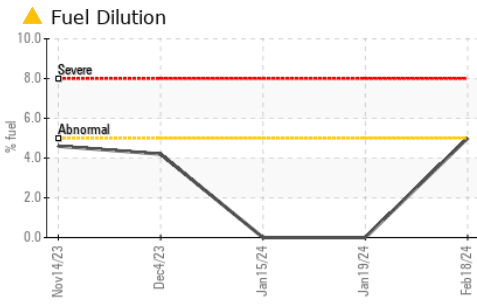
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	5	7
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>5	▲ 5	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	8.8	8.2	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.4	23.5	24.2
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	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	2	2	3
Boron	ppm	ASTM D5185(m)	250	31	35	27
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	39	39	40
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	450	496	487	508
Calcium	ppm	ASTM D5185(m)	3000	1682	1620	1700
Phosphorus	ppm	ASTM D5185(m)	1150	725	711	727
Zinc	ppm	ASTM D5185(m)	1350	841	825	860
Sulfur	ppm	ASTM D5185(m)	4250	2057	1995	1994
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.6	22.3	23.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 12.1	12.6	11.9



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0884557
Lab Number : 02616953
Unique Number : 5734063
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual)

Received : 21 Feb 2024
Tested : 22 Feb 2024
Diagnosed : 22 Feb 2024 - Wes Davis

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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.