



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

[PMOAS3340839]

Machine Id

CATERPILLAR SR4 6FA05294 - WATER PLANT GORMAN AVE

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0035241	DC0026355	DC0020421
Sample Date		Client Info		03 Apr 2024	03 Apr 2023	11 Apr 2022
Machine Age	yrs	Client Info		1	12	1313
Oil Age	yrs	Client Info		0	12	0
Filter Age	yrs	Client Info		0	12	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<1	1	2
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	<1	<1
Lead	ppm	ASTM D5185m	>40	<1	0	2
Copper	ppm	ASTM D5185m	>330	1	1	1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

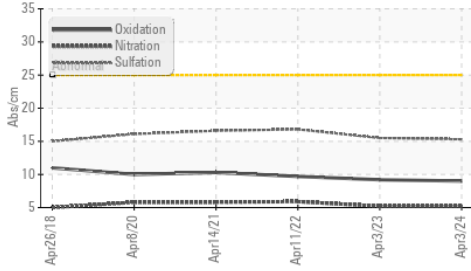
Silicon	ppm	ASTM D5185m	>25	5	2	3
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.2	5.2	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.3	15.5	16.8
Silt	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

FLUID CONDITION

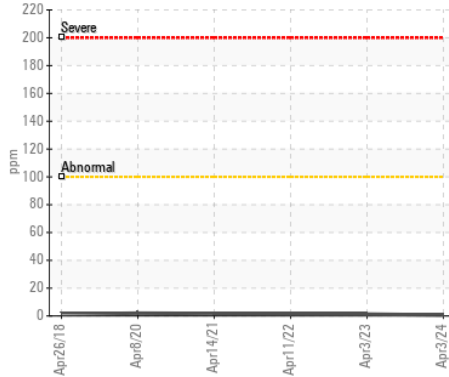
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	2	2
Boron	ppm	ASTM D5185m	250	2	3	4
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	3	4	3
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	450	43	72	45
Calcium	ppm	ASTM D5185m	3000	2225	2256	2491
Phosphorus	ppm	ASTM D5185m	1150	920	928	959
Zinc	ppm	ASTM D5185m	1350	1108	1098	1092
Sulfur	ppm	ASTM D5185m	4250	4574	4594	3330
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.0	9.2	9.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.7	7.7	9.0
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.5	14.2

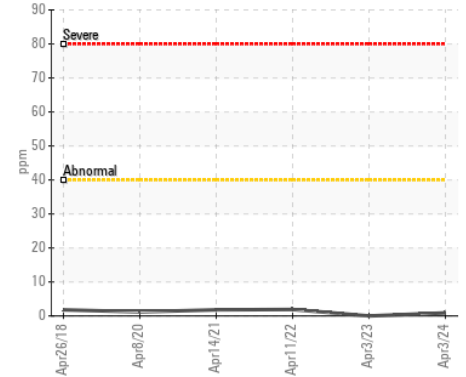
FT-IR (Direct Trend)



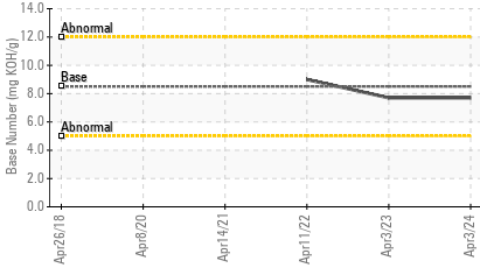
Iron (ppm)



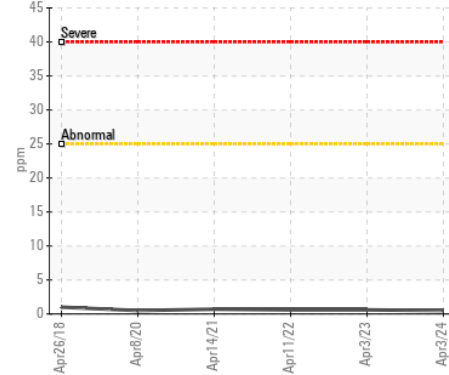
Lead (ppm)



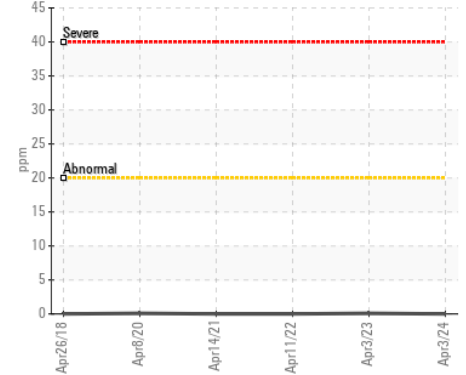
Base Number



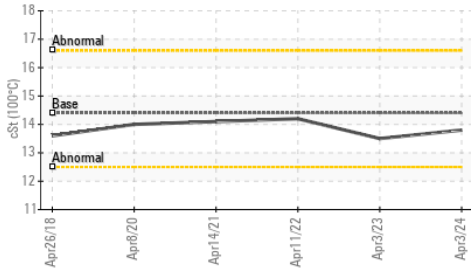
Aluminum (ppm)



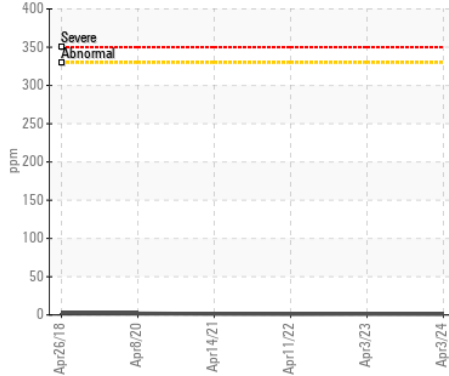
Chromium (ppm)



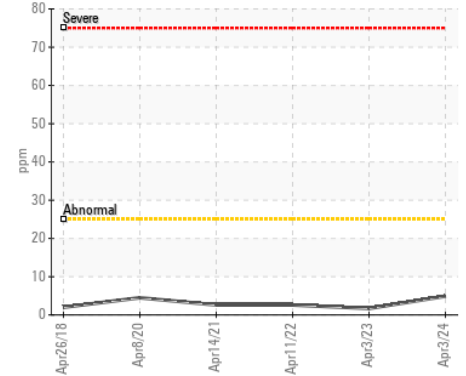
Viscosity @ 100°C



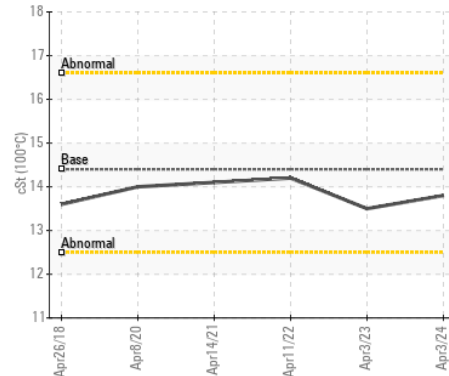
Copper (ppm)



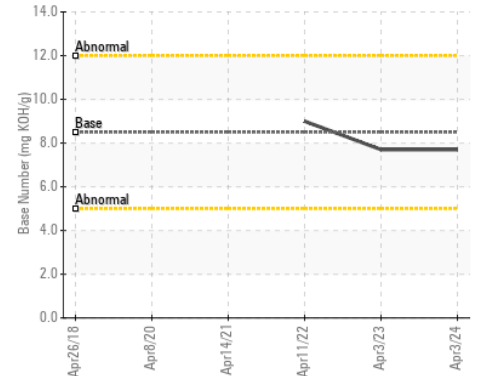
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035241 **Received** : 23 Apr 2024
Lab Number : 06157473 **Tested** : 24 Apr 2024
Unique Number : 10992896 **Diagnosed** : 24 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

KELLY GENERATOR & EQUIPMENT INC
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 OWINGS, MD
 US 20736
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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)