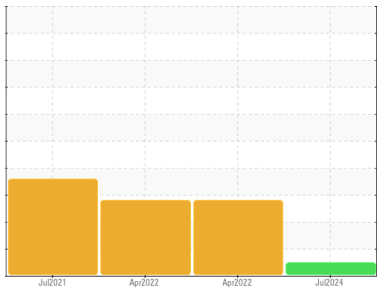
OIL ANALYSIS REPORT

Area
PORTABLE
Machine Id
CATERPILLAR AP-G-70110 CAT 800KW Generator
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W40 (26 GAL)

Sample Rating Trend



NORMAL

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. (Customer Sample Comment: Generator was ran for 1 hr ZZZZ inspection on the Buss loaded)

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0819706**	WC0469443	WC0552824
Sample Date		Client Info		**07 Jul 2024**	22 Apr 2022	10 Apr 2022
Machine Age	hrs	Client Info		**491**	0	0
Oil Age	hrs	Client Info		**12**	0	476
Oil Changed		Client Info		**Not Changd**	N/A	N/A
Sample Status				**NORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**3**	35	31
Chromium	ppm	ASTM D5185m	>20	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m	>2	**79**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	1
Aluminum	ppm	ASTM D5185m	>25	**1**	2	2
Lead	ppm	ASTM D5185m	>40	**0**	14	14
Copper	ppm	ASTM D5185m	>330	**14**	▲ 582	▲ 522
Tin	ppm	ASTM D5185m	>15	**<1**	3	3
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**129**	21	21
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**<1**	32	30
Manganese	ppm	ASTM D5185m		**0**	3	3
Magnesium	ppm	ASTM D5185m	450	**629**	551	544
Calcium	ppm	ASTM D5185m	3000	**1185**	1075	977
Phosphorus	ppm	ASTM D5185m	1150	**932**	692	673
Zinc	ppm	ASTM D5185m	1350	**1096**	832	648
Sulfur	ppm	ASTM D5185m	4250	**4026**	1879	1777

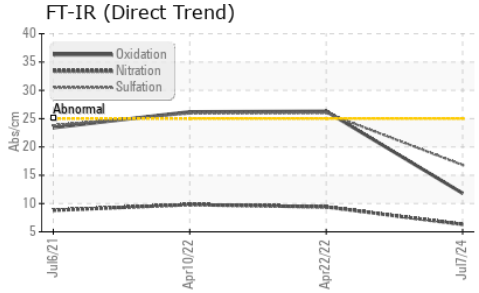
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**13**	▲ 48	▲ 43
Sodium	ppm	ASTM D5185m	>44	**2**	40	37
Potassium	ppm	ASTM D5185m	>20	**3**	2	0
Fuel	%	ASTM D3524	>5	**<1.0**	<1.0	1.7

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.1**	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**6.3**	9.4	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**16.8**	26.0	25.9

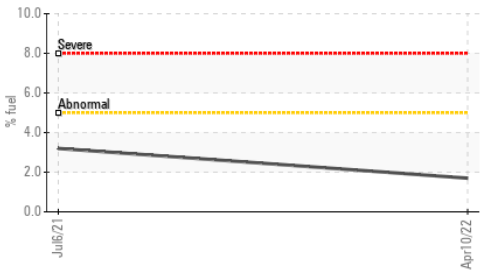
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**11.8**	26.3	26.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**9.48**	8.67	5.90

OIL ANALYSIS REPORT

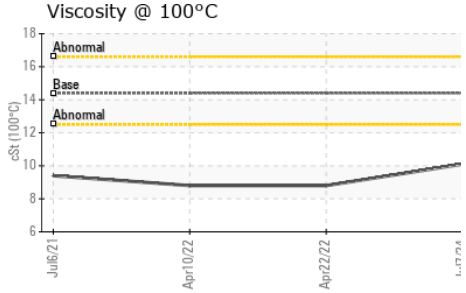
FT-IR (Direct Trend)



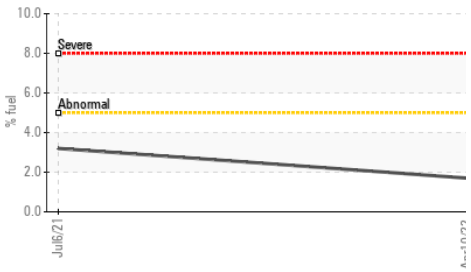
Fuel Dilution



Viscosity @ 100°C



Fuel Dilution

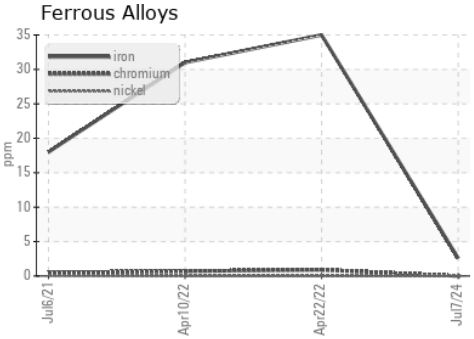


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

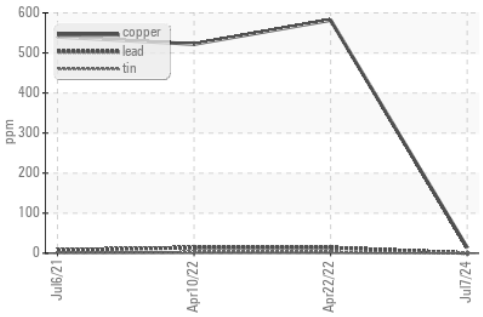
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	**10.1**	8.8	8.8

GRAPHS

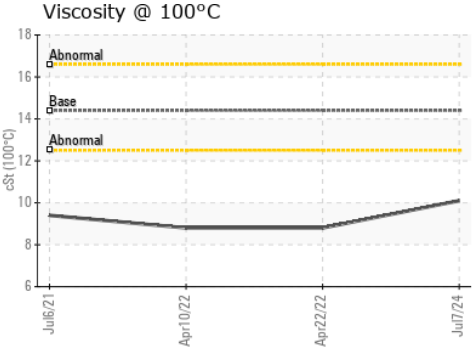
Ferrous Alloys



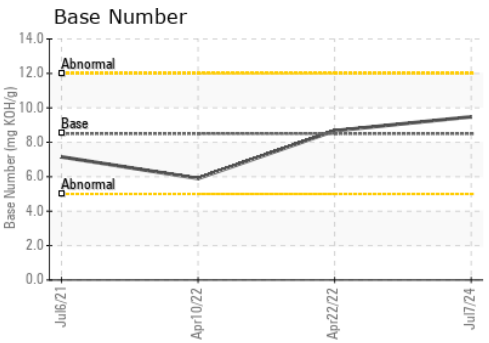
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0819706
Lab Number : 06235141
Unique Number : 11123975
Test Package : IND 2 (Additional Tests: FuelDilution, PrtCount)

Received : 12 Jul 2024
Tested : 15 Jul 2024
Diagnosed : 15 Jul 2024 - Sean Felton

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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)

Report Id: CONANCAK [WUSCAR] 06235141 (Generated: 07/15/2024 12:13:30) Rev: 1

Submitted By: Chris Van Ryzin Ben DeRaeve