OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI 002121
Component
Diesel Engine
Fluid
CASTROL VECTON 15W40 CK4 (7 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

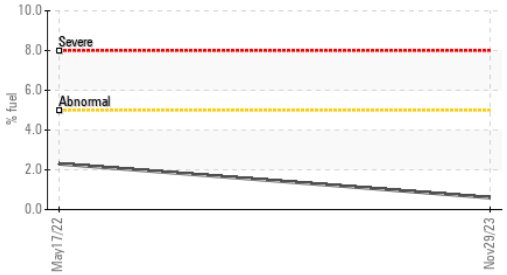
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

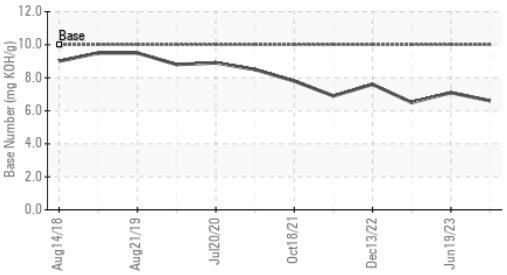
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0800528	WC0724577	WC0724664
Sample Date		Client Info		29 Nov 2023	19 Jun 2023	16 Jun 2023
Machine Age	hrs	Client Info		5950	5858	5542
Oil Age	hrs	Client Info		92	550	550
Filter Age	hrs	Client Info		92	550	550
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	5	17	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	16	6
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	2	3	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	5	5	4
Potassium	ppm	ASTM D5185m	>20	2	<1	4
Fuel	%	ASTM D3524	>5	0.6	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.0	8.9	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.5	18.0	17.9
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
Sodium	ppm	ASTM D5185m		3	2	2
Boron	ppm	ASTM D5185m		60	59	64
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		90	89	88
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		87	103	79
Calcium	ppm	ASTM D5185m		1971	2201	2188
Phosphorus	ppm	ASTM D5185m		1040	1078	1073
Zinc	ppm	ASTM D5185m		1170	1315	1275
Sulfur	ppm	ASTM D5185m		3592	4569	4605
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8	13.3	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	6.6	7.1	6.5
Visc @ 100°C	cSt	ASTM D445	15.5	12.4	13.4	12.6

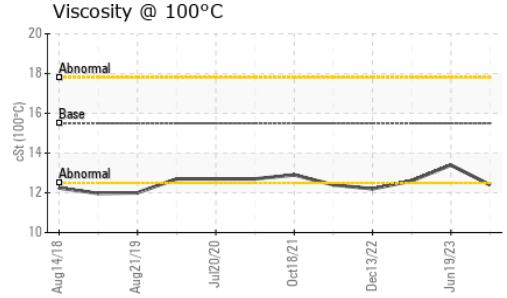
Fuel Dilution



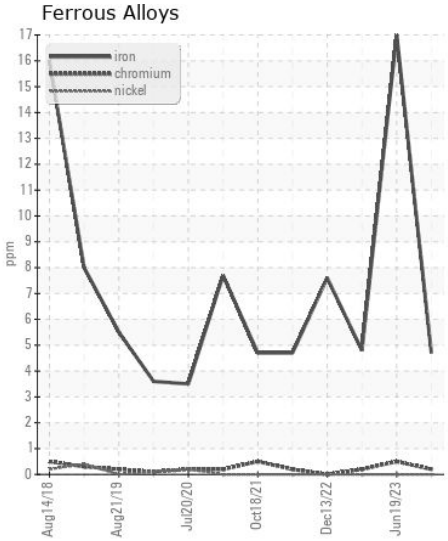
Base Number



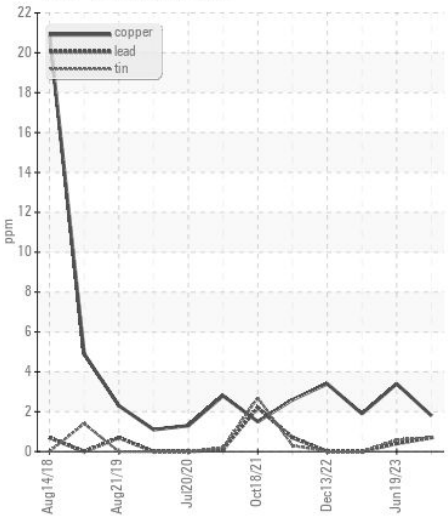
Viscosity @ 100°C



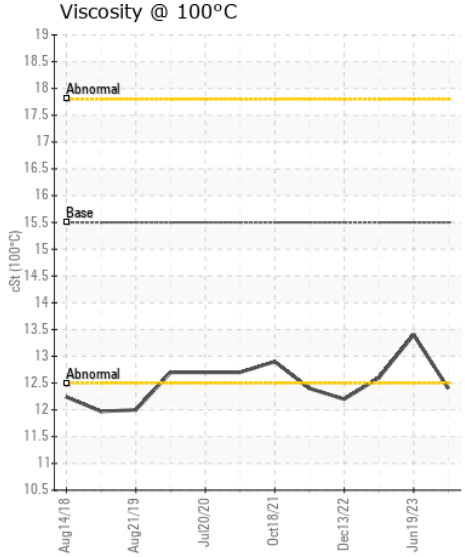
Ferrous Alloys



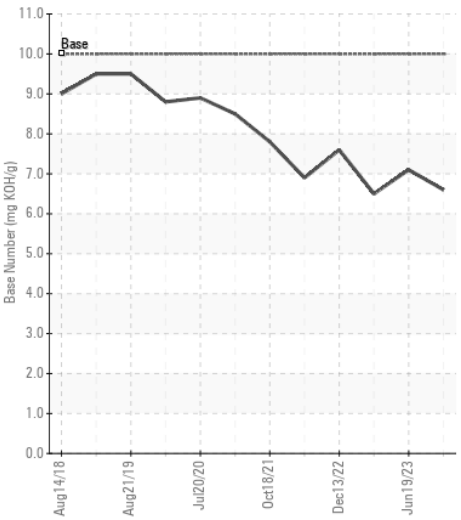
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0800528 **Recieved** : 12 Jan 2024
Lab Number : 06060109 **Diagnosed** : 16 Jan 2024
Unique Number : 10831491 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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)

CJ MILLER LLC
2903 DEDE RD
FINKSBURG, MD
US 21048
Contact: JOE ROSS
jross@cjmillerllc.com
T: (410)239-8006
F: (410)239-1051