OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CAPACITY 0807106
Component
Front Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (17 QTS)

RECOMMENDATION

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

WEAR

An increase in the copper level is noted. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. All component wear rates are normal.

CONTAMINATION

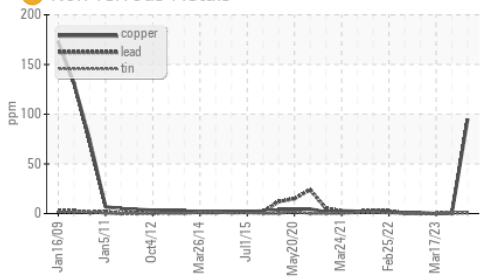
There is no indication of any contamination in the oil.

FLUID CONDITION

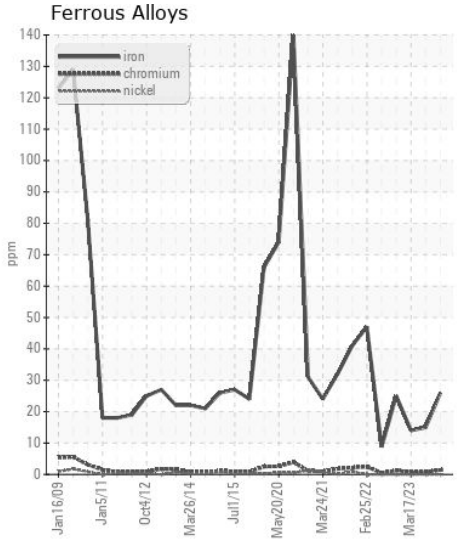
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0748594	WC0748533	WC0655569
Sample Date		Client Info		04 Apr 2024	19 Jul 2023	17 Mar 2023
Machine Age	hrs	Client Info		20639	19794	19238
Oil Age	hrs	Client Info		3083	2238	1682
Filter Age	hrs	Client Info		845	557	640
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>130	26	15	14
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	3	2
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>125	95	<1	0
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	5	5
Potassium	ppm	ASTM D5185m	>20	12	12	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	11.8	12.4	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.2	25.5	24.3
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		10	2	5
Boron	ppm	ASTM D5185m	151	125	200	145
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	87	116	61
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	0	631	768	896
Calcium	ppm	ASTM D5185m	2046	2212	1824	1725
Phosphorus	ppm	ASTM D5185m	1043	965	825	879
Zinc	ppm	ASTM D5185m	943	1194	1048	1146
Sulfur	ppm	ASTM D5185m	5012	3895	3286	3844
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.7	23.7	22.3
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.1	8.7	8.2
Visc @ 100°C	cSt	ASTM D445	14.4	14.6	13.9	13.3

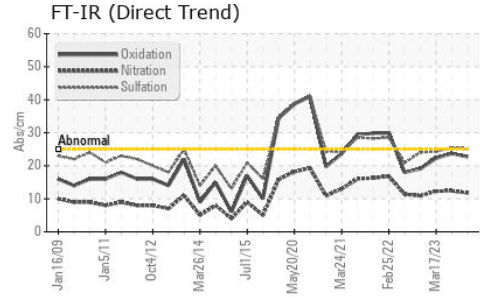
Non-ferrous Metals



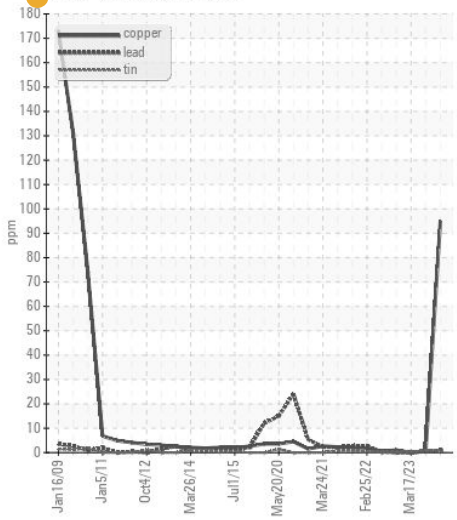
Ferrous Alloys



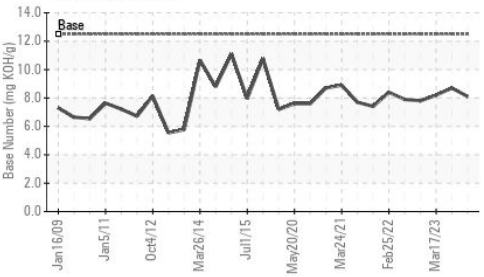
FT-IR (Direct Trend)



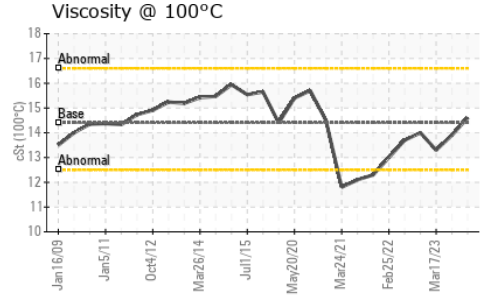
Non-ferrous Metals



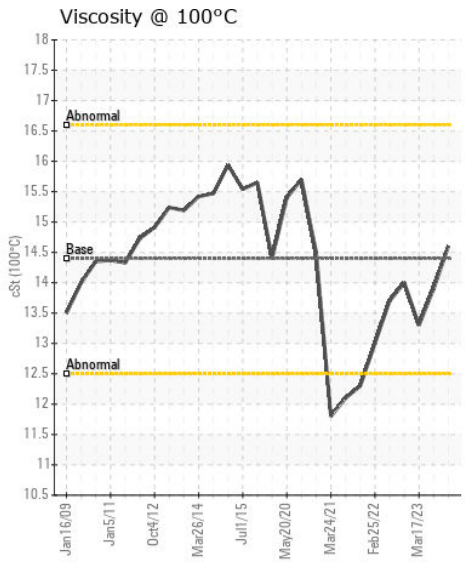
Base Number



Viscosity @ 100°C



Viscosity @ 100°C



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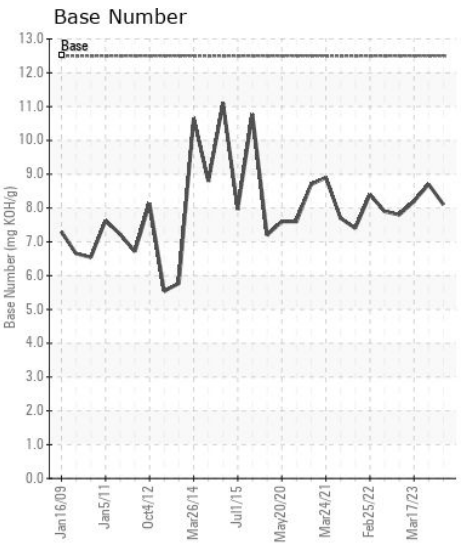

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0748594
Lab Number : 06147155
Unique Number : 10977233
Test Package : FLEET

Received : 12 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 16 Apr 2024 - Sean Felton

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)

DOLE FRESH FRUIT COMPANY
10TH AVENUE MARINE TERMINAL, 850 WATER STREET
SAN DIEGO, CA
US 92101
Contact: CARLOS RENTERIA
carlos.renteria@dole.com
T: (619)615-1723
F: (619)236-0703