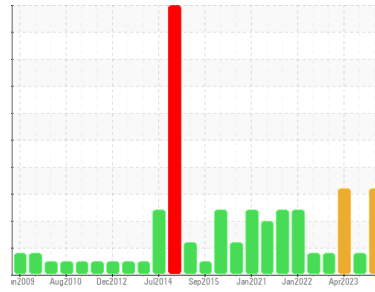




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
CAPACITY 0807100

Component
Front Diesel Engine

Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (17 QTS)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0748596	WC0748561	WC0748539
Sample Date	Client Info	11 Apr 2024	28 Sep 2023	13 Apr 2023
Machine Age	hrs	17984	17158	16549
Oil Age	hrs	7053	5570	4961
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		ABNORMAL	ABNORMAL	SEVERE

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 >130	70	27	104
Chromium	ppm ASTM D5185m >10	4	<1	4
Nickel	ppm ASTM D5185m >4	2	0	<1
Titanium	ppm ASTM D5185m >2	<1	0	0
Silver	ppm ASTM D5185m >2	<1	0	0
Aluminum	ppm ASTM D5185m >20	14	4	6
Lead	ppm ASTM D5185m >20	8	3	▲ 39
Copper	ppm ASTM D5185m >125	9	2	7
Tin	ppm ASTM D5185m >4	2	2	2
Vanadium	ppm ASTM D5185m	<1	<1	0
Cadmium	ppm ASTM D5185m	1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 151	93	193	62
Barium	ppm ASTM D5185m 0.4	<1	0	0
Molybdenum	ppm ASTM D5185m 250	131	110	43
Manganese	ppm ASTM D5185m	2	<1	2
Magnesium	ppm ASTM D5185m 0	833	749	566
Calcium	ppm ASTM D5185m 2046	2248	1627	1390
Phosphorus	ppm ASTM D5185m 1043	1091	775	644
Zinc	ppm ASTM D5185m 943	1257	940	824
Sulfur	ppm ASTM D5185m 5012	3778	2676	2511

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 41	6	9
Sodium	ppm ASTM D5185m	16	7	21
Potassium	ppm ASTM D5185m >20	30	17	17
Fuel	% ASTM D3524 >3.0	▲ 4.3	▲ 4.7	▲ 27.3

INFRA-RED

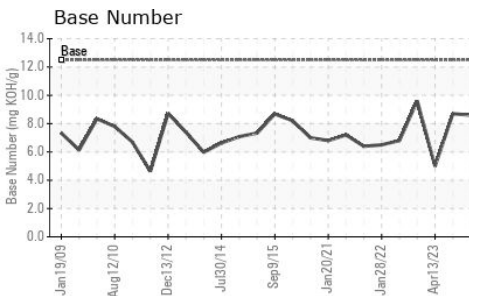
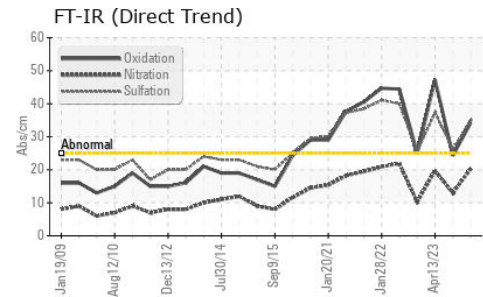
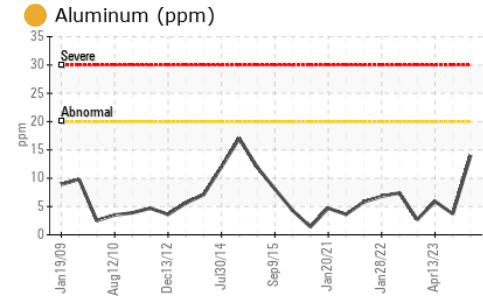
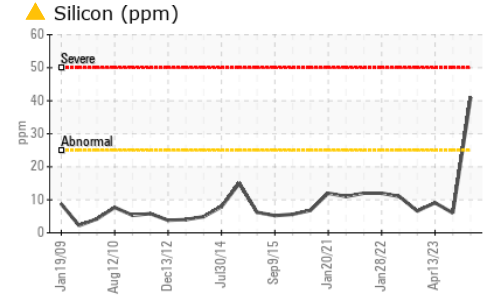
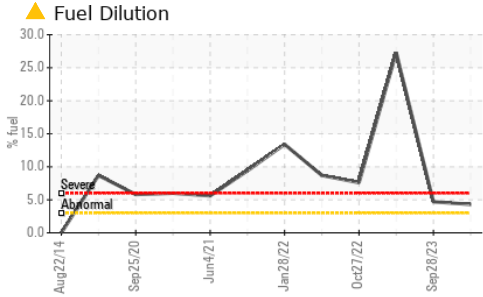
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	2.5	1.1	1.9
Nitration	Abs/cm *ASTM D7624 >20	20.2	13.0	19.7
Sulfation	Abs/.1mm *ASTM D7415 >30	34.7	26.3	37.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	34.2	24.3	47.3
Base Number (BN)	mg KOH/g ASTM D2896 12.5	8.6	8.7	5.0



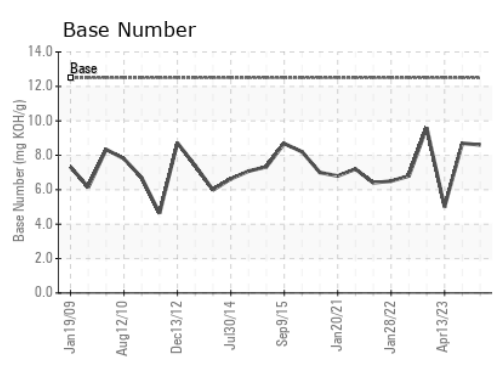
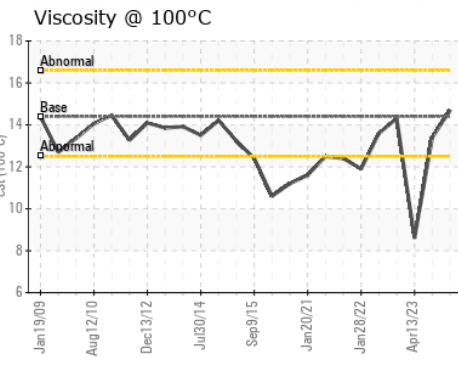
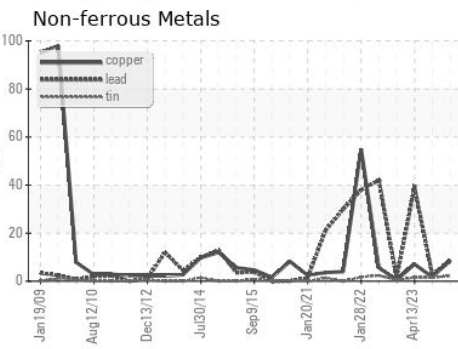
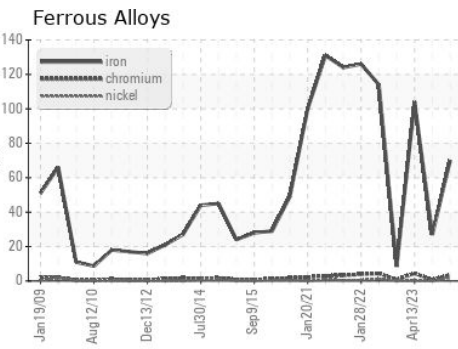
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.7	13.4 ▲ 8.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0748596 **Received** : 17 Apr 2024
Lab Number : 06152563 **Tested** : 22 Apr 2024
Unique Number : 10982641 **Diagnosed** : 22 Apr 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: PercentFuel)

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

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)