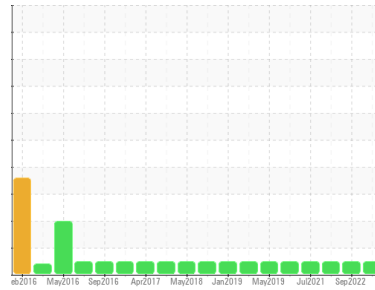




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
2H28
Machine Id
THERMO KING T-8805 RTK9630 REEFER (S/N 2NP3LJ0X6GM358068)
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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		ARI0007221	ARI0004972	ARI0003664
Sample Date	Client Info		23 Oct 2023	29 Sep 2022	12 Oct 2021
Machine Age	hrs	Client Info	5325	12252	10622
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	25	5	2
Chromium	ppm	ASTM D5185m >6	<1	0	0
Nickel	ppm	ASTM D5185m >2	<1	0	0
Titanium	ppm	ASTM D5185m >2	0	10	89
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >20	3	<1	0
Lead	ppm	ASTM D5185m >95	<1	0	<1
Copper	ppm	ASTM D5185m >85	2	<1	<1
Tin	ppm	ASTM D5185m >9	0	0	0
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	0	1
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 151	20	12	123
Barium	ppm	ASTM D5185m 0.4	0	2	0
Molybdenum	ppm	ASTM D5185m 250	56	56	2
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m 0	666	873	375
Calcium	ppm	ASTM D5185m 2046	1315	1196	1903
Phosphorus	ppm	ASTM D5185m 1043	748	1046	1051
Zinc	ppm	ASTM D5185m 943	939	1260	1098
Sulfur	ppm	ASTM D5185m 5012	2892	3780	3177

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	4	<1
Sodium	ppm	ASTM D5185m	23	0	0
Potassium	ppm	ASTM D5185m >20	16	1	1

INFRA-RED

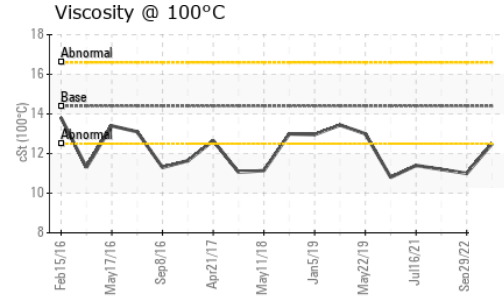
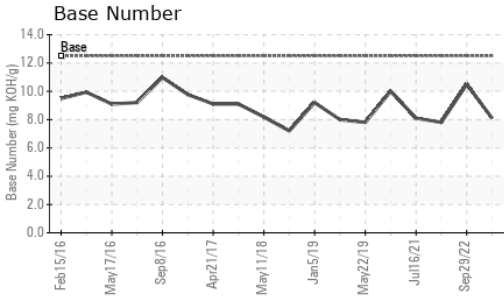
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.6	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	10.9	7.9	8.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.0	19.6	19.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.4	15.1	14.7
Base Number (BN)	mg KOH/g	ASTM D2896 12.5	8.1	10.5	7.8



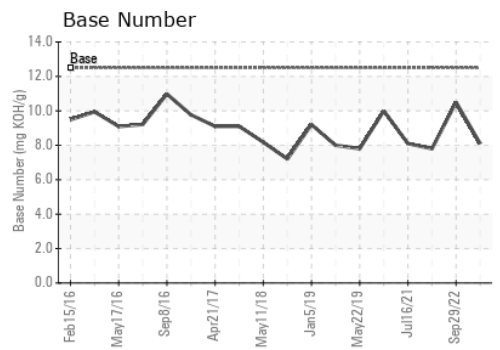
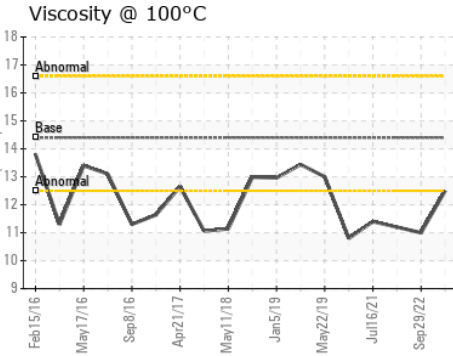
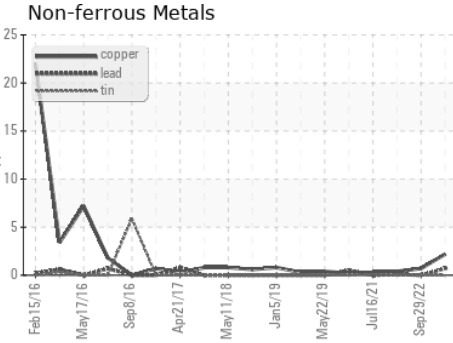
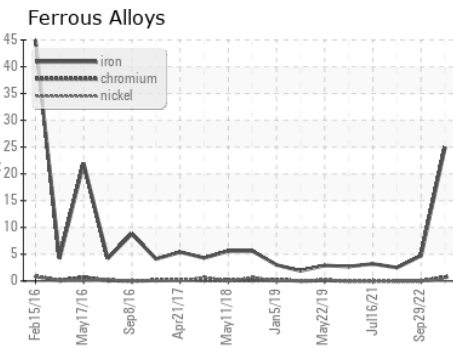
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	12.5	11.0	11.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ARI0007221 **Received** : 02 Nov 2023
Lab Number : 05996509 **Diagnosed** : 02 Nov 2023
Unique Number : 10724869 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: TBN)

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 CHESTERFIELD, MO
 US 63005
 Contact: ANDY RICHTER
 ARICHTER@INSITUFORM.COM
 T: (314)280-7555
 F:

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)