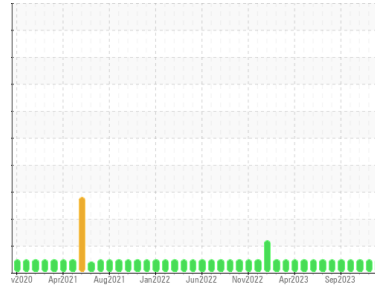




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
ARIZONA GROUPING
 Machine Id
2015 MACK 2696

Component
Diesel Engine
 Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (9 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		WC0892125	WC0881839	WC0857165
Sample Date	Client Info		09 Jan 2024	05 Dec 2023	13 Nov 2023
Machine Age	hrs	Client Info	17073	17004	16900
Oil Age	hrs	Client Info	1382	1313	1209
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	18	18	19
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >5	<1	<1	1
Titanium	ppm	ASTM D5185m >2	0	0	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >20	4	4	4
Lead	ppm	ASTM D5185m >40	2	1	3
Copper	ppm	ASTM D5185m >330	<1	<1	7
Tin	ppm	ASTM D5185m >15	<1	<1	1
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 151	22	24	18
Barium	ppm	ASTM D5185m 0.4	0	0	0
Molybdenum	ppm	ASTM D5185m 250	19	21	24
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m 0	635	639	642
Calcium	ppm	ASTM D5185m 2046	1423	1391	1482
Phosphorus	ppm	ASTM D5185m 1043	768	757	858
Zinc	ppm	ASTM D5185m 943	899	952	1009
Sulfur	ppm	ASTM D5185m 5012	2851	2794	3113

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	7	7	7
Sodium	ppm	ASTM D5185m	17	17	15
Potassium	ppm	ASTM D5185m >20	3	4	5

INFRA-RED

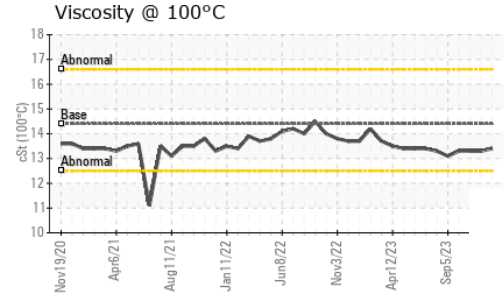
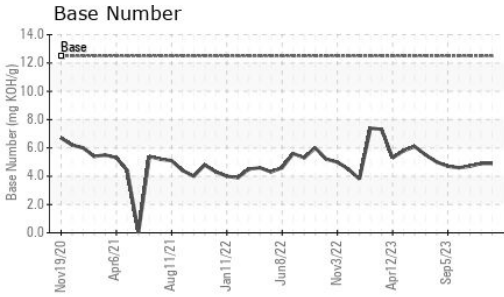
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	10.6	10.3	10.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.6	24.3	25.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.9	20.7	22.0
Base Number (BN)	mg KOH/g	ASTM D2896 12.5	4.9	4.9	4.7



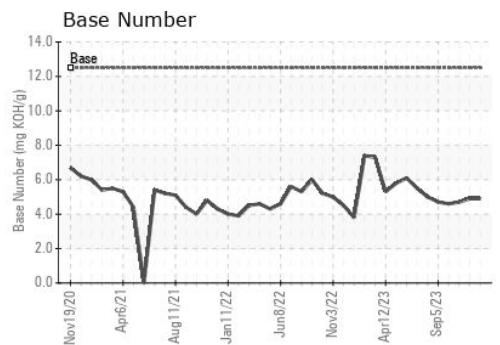
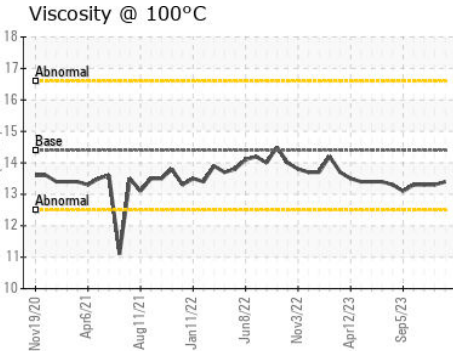
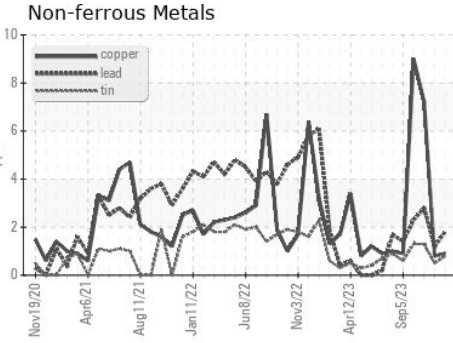
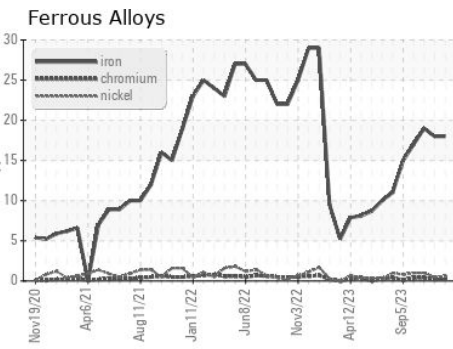
OIL ANALYSIS REPORT



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	13.4	13.3	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0892125 **Received** : 12 Jan 2024
Lab Number : **06060002** **Diagnosed** : 16 Jan 2024
Unique Number : 10831384 **Diagnostician** : Don Baldrige
Test Package : FLEET

LIBERTY DISPOSAL
 6401 S EASTERN AVE
 OKLAHOMA CITY, OK
 US 73149
 Contact: Loran Cottle
 l.cottle@ldi89.com
 T: (910)970-0291
 F: x:

Certificate L2367
 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)