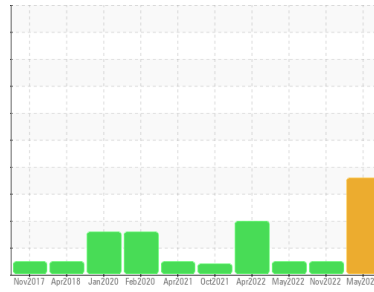




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id

**MANN'S X6**

Component

**Port Gearbox**

Fluid

**CHEVRON DELO 100 SAE 40 (4 QTS)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>KL0013500</b>	KL0008974	KL0008936
Sample Date	Client Info		<b>01 May 2024</b>	30 Nov 2022	11 May 2022
Machine Age	hrs	Client Info	<b>1802</b>	12756	11532
Oil Age	hrs	Client Info	<b>1000</b>	1370	146
Oil Changed	Client Info		<b>Changed</b>	Changed	Not Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	<b>8</b>	14	8
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	3	1
Lead	ppm	ASTM D5185m	>50	<b>&lt;1</b>	7	5
Copper	ppm	ASTM D5185m	>200	<b>3</b>	166	90
Tin	ppm	ASTM D5185m	>10	<b>1</b>	7	5
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>59</b>	148	143
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	49	48
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>789</b>	816	895
Calcium	ppm	ASTM D5185m		<b>1432</b>	1030	987
Phosphorus	ppm	ASTM D5185m	980	<b>806</b>	834	786
Zinc	ppm	ASTM D5185m	1080	<b>910</b>	901	883
Sulfur	ppm	ASTM D5185m		<b>3482</b>	3407	2650

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	<b>5</b>	5	3
Sodium	ppm	ASTM D5185m		<b>2</b>	1	1
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	0	<1
Water	%	ASTM D6304	>0.2	<b>▲ 0.346</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 3460</b>	---	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>14198</b>	17295	30278
Particles >6µm	ASTM D7647	>5000	<b>▲ 7734</b>	320	204
Particles >14µm	ASTM D7647	>640	<b>▲ 1316</b>	8	5
Particles >21µm	ASTM D7647	>160	<b>▲ 443</b>	2	1
Particles >38µm	ASTM D7647	>40	<b>▲ 68</b>	0	0
Particles >71µm	ASTM D7647	>10	<b>7</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/16	<b>▲ 20/18</b>	15/10	15/10

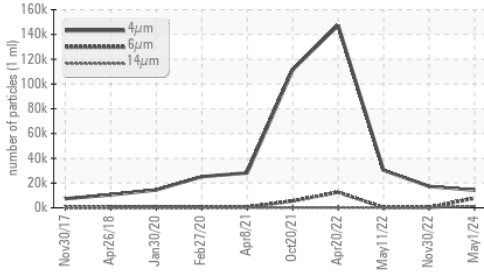
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>1.40</b>	1.99	1.52

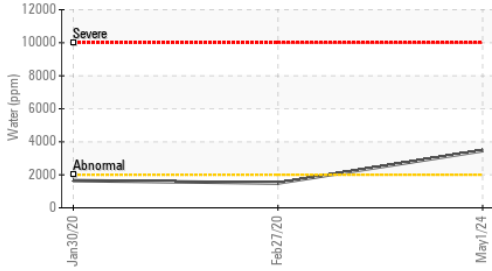


# OIL ANALYSIS REPORT

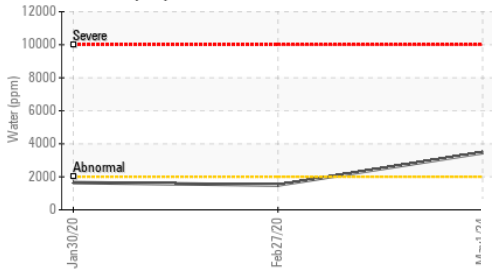
## Particle Trend



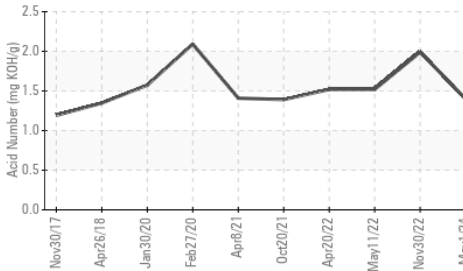
## Water (KF)



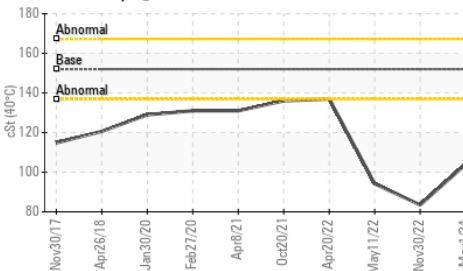
## Water (KF)



## Acid Number



## Viscosity @ 40°C

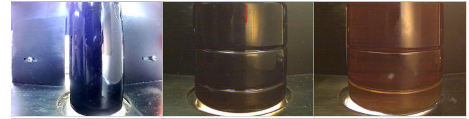


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

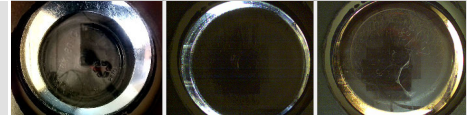
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	152	104	83.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

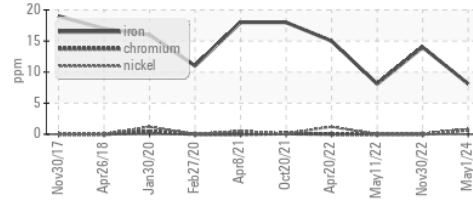


Bottom

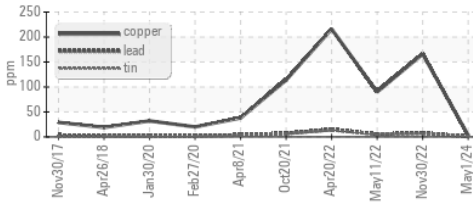


## GRAPHS

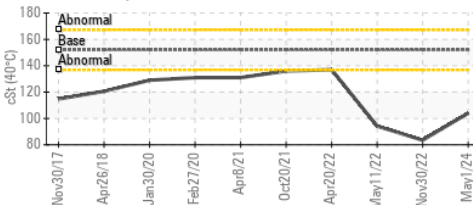
### Ferrous Alloys



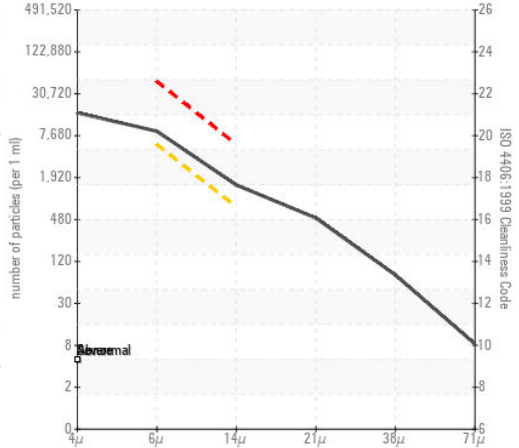
### Non-ferrous Metals



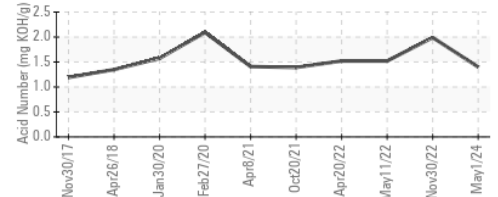
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013500 **Received** : 17 May 2024  
**Lab Number** : 06183325 **Tested** : 29 May 2024  
**Unique Number** : 11034651 **Diagnosed** : 29 May 2024 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KF, PrtCount )

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)

**EXPEDITIONS**  
 658 FRONT ST, SUITE 127  
 LAHAINA, HI  
 US 96761  
 Contact: BILL CALDWELL  
 bill@go-lanai.com  
 T: (800)695-2624  
 F: (808)661-0544