



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**MAIN HYDRO**  
 Component  
**Main Hydraulic System**  
 Fluid  
**CHEVRON RANDO HD 32 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0011440</b>	KLMFA22186	KLMFA16526
Sample Date		Client Info		<b>21 Apr 2024</b>	09 May 2020	05 Jul 2019
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>0</b>	0	0
Filter Age	mths	Client Info		<b>0</b>	6	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

The lead level is abnormal. The copper level is abnormal.

Iron	ppm	ASTM D5185m	>20	<b>8</b>	8	8
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>10	<b>▲ 14</b>	9	7
Copper	ppm	ASTM D5185m	>75	<b>▲ 108</b>	70	67
Tin	ppm	ASTM D5185m	>10	<b>7</b>	4	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

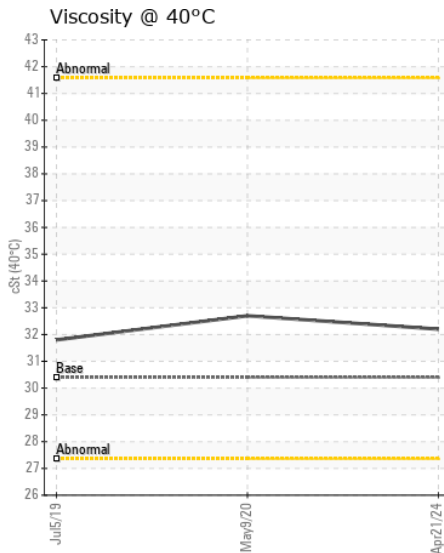
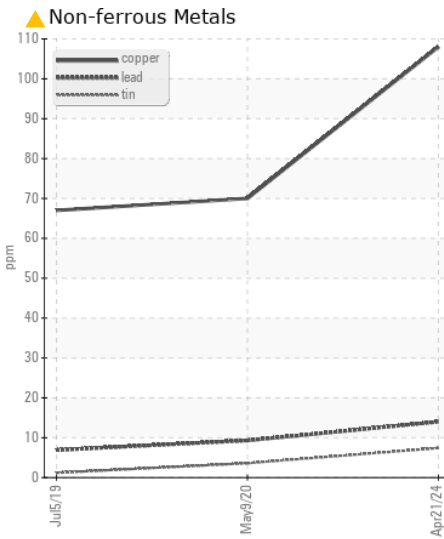
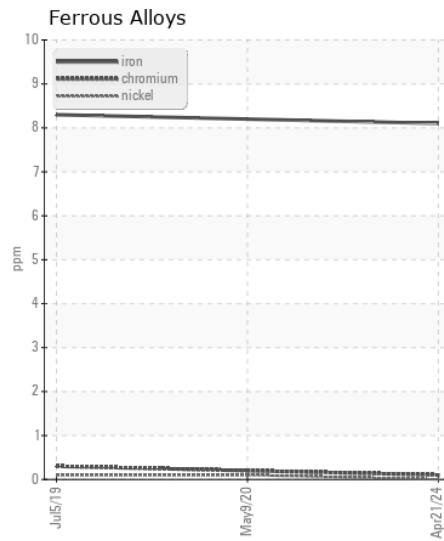
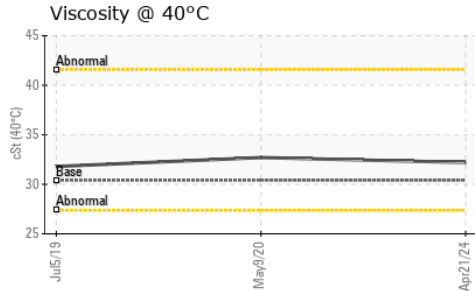
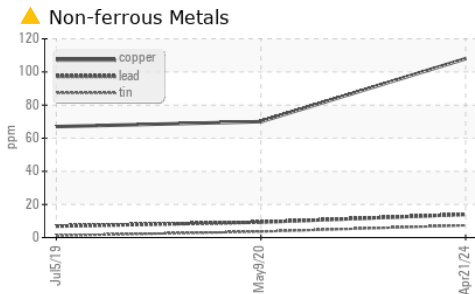
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>4</b>	<1	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m		<b>29</b>	26	26
Phosphorus	ppm	ASTM D5185m		<b>326</b>	316	312
Zinc	ppm	ASTM D5185m		<b>314</b>	301	336
Sulfur	ppm	ASTM D5185m		<b>854</b>	870	1391
Visc @ 40°C	cSt	ASTM D445	30.4	<b>32.2</b>	32.7	31.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0011440  
**Lab Number** : 06157161  
**Unique Number** : 10992584  
**Test Package** : FLEET

**Received** : 22 Apr 2024  
**Tested** : 23 Apr 2024  
**Diagnosed** : 25 Apr 2024 - Jonathan Hester

**VANGUARD FISHERIES LLC**  
 PO BOX 275  
 KODIAK, AK  
 US 99615

Contact: FRANKE BROWN  
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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)

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