



## RYAN KELLY SAM ZF 20006122 INBOARD - PORT GEARBOX

Sample No: VPA060034

**Oil Type:** DIESEL ENGINE OIL SAE 30

SAMPLE INFORMA	TION				
Sample Number		VPA060034	VPA047670	VPA002420	
Sample Date		14 Feb 2024	16 Jan 2023	13 May 2015	
Machine Hours		972	834	0	
Oil Hours		0	141	4	
Oil Changed		Changed	Not Changd	Changed	
Sample Status		SEVERE	SEVERE	NORMAL	
OIL CONDITION					
Visc @ 40°C	cSt	■87.3	■87.7	□97.35	
CONTAMINATION					
Water	%	NEG	NEG	NEG	
Silicon	ppm	<b>■7</b>	■8	<b>6</b>	
Sodium	ppm	<b>■&lt;1</b>	<b>-</b> <1	■3	
Potassium	ppm	<b>■</b> 0	<b>0</b>	■0	
WEAR METALS					
PQ		<b>■</b> 20	<b>□</b> 12	<b>27.0</b>	
Iron	ppm	■32	32		
Copper	ppm	<b>308</b>	<b>3</b> 41	■ 44	
Lead	ppm	<b>246</b>	254	<b>255</b>	
Tin	ppm	<b>■</b> 3	<b>2</b>	■ 0	
Aluminum	ppm	<b>■&lt;1</b>	<b>-</b> <1	■3	
Chromium	ppm	<b>■&lt;1</b>	<b>-</b> < 1	<b>-</b> < 1	
Molybdenum	ppm	<b>47</b>	<b>48</b>	61	
Nickel	ppm	<b>■</b> 0	<b>-</b> < 1	<b>1</b>	
Titanium	ppm	<b>■</b> 0	0	<1	
Silver	ppm	0	0	0	
Manganese	ppm	<b>■&lt;1</b>	<b>-</b> <1	<1	
Vanadium	ppm	<1	0	0	
ADDITIVES					
Calcium	ppm	■3474	■3497	1088	
Magnesium	ppm	<b>16</b>	28	776	
Zinc	ppm	<b>1111</b>	■1106	1144	
Phosphorus	ppm	<b>1016</b>	<b>961</b>	1039	
ъ .	nnm	<b>■</b> 0	П0	0	
Barium	ppm			O	

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## Diagnosis

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Clutch wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

 Depot:
 VP794951

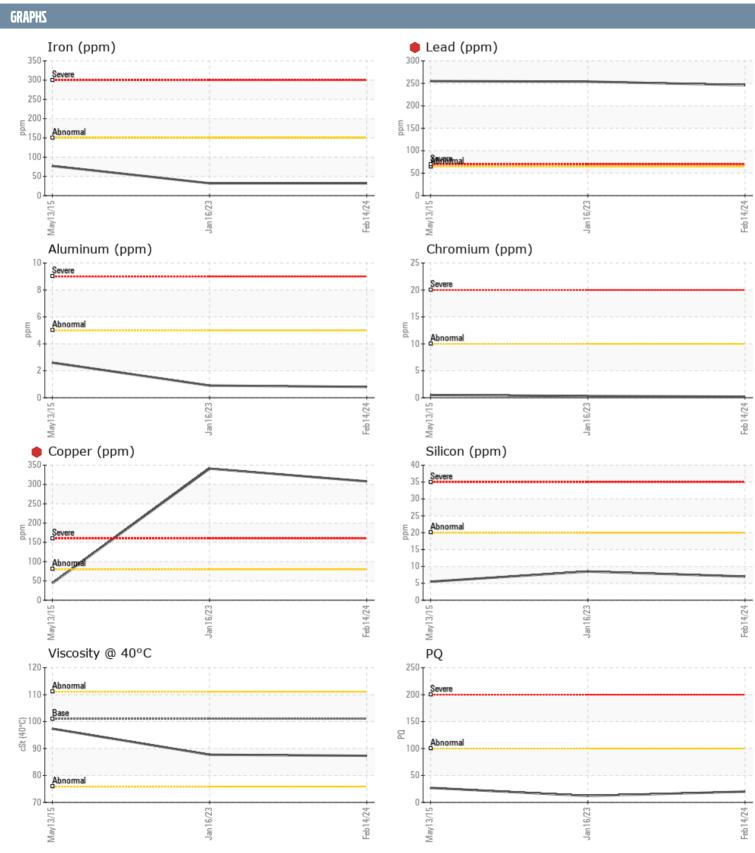
 Unique No:
 10890141

 Signed:
 Sean Felton

 Report Date:
 26 Feb 2024

## OIL ANALYSIS REPORT





Report Id: VP794951 [WUSCAR] 06097288 (Generated: 02/26/2024 12:54:02) Rev: 1