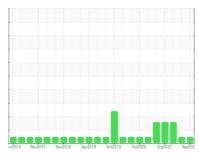


OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id UB-C01C Component Gearbox

ROYAL PURPLE SYNERGY 90/220 (--- 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 component.

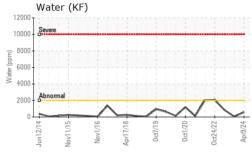
Fluid Condition

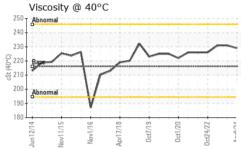
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

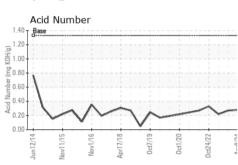
				8 0ct2019 0ct2020 0ct2		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RP0033052	RP0037631	RP0033051
Sample Date		Client Info		09 Apr 2024	03 Oct 2023	05 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	40	1	60
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	<1
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	<1	2	2
Tin	ppm	ASTM D5185m	>25	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		<1	0	5
Calcium	ppm	ASTM D5185m		7	3	5
	1- 1-	710 1111 00 100111		-	J	O
Phosphorus	ppm	ASTM D5185m	370	89	85	93
Phosphorus Zinc			370			
	ppm	ASTM D5185m	370 limit/base	89	85	93
Zinc	ppm	ASTM D5185m ASTM D5185m		89 <1	85 0	93
Zinc	ppm	ASTM D5185m ASTM D5185m method	limit/base	89 <1 current	85 0 history1	93 0 history2
Zinc CONTAMINANTS Silicon	ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	89 <1 current	85 0 history1	93 0 history2
Zinc CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >50 >20	89 <1 current 2 0	85 0 history1 0	93 0 history2 4
Zinc CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >50 >20 >0.2	89 <1 current 2 0 0	85 0 history1 0 0	93 0 history2 4 0
Zinc CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	limit/base >50 >20 >0.2	89 <1 current 2 0 0 0 0.058 580	85 0 history1 0 0 0 0	93 0 history2 4 0 0 0.085
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	limit/base >50 >20 >0.2 >2000	89 <1 current 2 0 0 0 0.058 580	85 0 history1 0 0 0 0.005 59.1	93 0 history2 4 0 0 0.085 850
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	limit/base >50 >20 >0.2 >2000 limit/base	89 <1 current 2 0 0 0.058 580 current	85 0 history1 0 0 0 0.005 59.1 history1	93 0 history2 4 0 0 0.085 850 history2
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN)	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304	limit/base >50	89 <1 current 2 0 0 0.058 580 current 0.28	85 0 history1 0 0 0 0.005 59.1 history1 0.27	93 0 history2 4 0 0 0.085 850 history2
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL	ppm ppm ppm ppm ppm ppm % ppm TION	ASTM D5185m Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 Method	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base	89 <1 current 2 0 0 0.058 580 current 0.28 current	85 0 history1 0 0 0 0.005 59.1 history1 0.27	93 0 history2 4 0 0 0.085 850 history2 0.22
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal	ppm ppm ppm ppm ppm ppm y ppm TION mg KOH/g	ASTM D5185m Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 Method *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE	85 0 history1 0 0 0.005 59.1 history1 0.27 history1 NONE	93 0 history2 4 0 0 0.085 850 history2 0.22 history2 NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm % ppm TION mg KOH/g	ASTM D5185m method ASTM D5185m MSTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 method *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE NONE	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE	85 0 history1 0 0 0.005 59.1 history1 0.27 history1 NONE	93 0 history2 4 0 0 0.085 850 history2 0.22 history2 NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm % ppm TION mg KOH/g scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 method *Visual *Visual *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE NONE NONE	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE NONE	85 0 history1 0 0 0 0.005 59.1 history1 0.27 history1 NONE NONE	93 0 history2 4 0 0 0.085 850 history2 0.22 history2 NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm % ppm TION mg KOH/g scalar scalar scalar scalar	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 Method ASTM D8045 Method *Visual *Visual *Visual *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE NONE NONE	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE NONE NONE NONE	85 0 history1 0 0 0.005 59.1 history1 0.27 history1 NONE NONE	93 0 history2 4 0 0 0.085 850 history2 0.22 history2 NONE NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm yo ppm TION mg KOH/g scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 method *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE NONE NONE NONE NONE NONE	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE NONE NONE NONE NONE NONE	85 0 history1 0 0 0.005 59.1 history1 0.27 history1 NONE NONE NONE	93 0 history2 4 0 0 0.085 850 history2 0.22 NONE NONE NONE NONE NONE NONE
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm yo ppm TION mg KOH/g scalar scalar scalar scalar scalar scalar	ASTM D5185m Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 Method *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE NONE NONE NONE NONE NONE NONE	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE NONE NONE NONE NONE NONE NONE NON	85 0 history1 0 0 0 0.005 59.1 history1 0.27 history1 NONE NONE NONE NONE NONE NONE NONE NON	93 0 history2 4 0 0 0.085 850 history2 0.22 NONE NONE NONE NONE NONE NONE NONE NO
Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID DEGRADA Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm % ppm TION mg KOH/g scalar scalar scalar scalar scalar scalar	ASTM D5185m Method ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 Method ASTM D8045 Method *Visual *Visual	limit/base >50 >20 >0.2 >2000 limit/base 1.33 limit/base NONE NONE NONE NONE NONE NONE NONE NON	89 <1 current 2 0 0 0.058 580 current 0.28 current NONE NONE NONE NONE NONE NONE NONE NON	85 0 history1 0 0 0 0.005 59.1 history1 0.27 history1 NONE NONE NONE NONE NONE NONE NONE NON	93 0 history2 4 0 0 0.085 850 history2 0.22 history2 NONE NONE NONE NONE NONE NONE NONE NON



OIL ANALYSIS REPORT

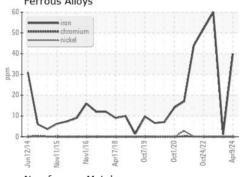




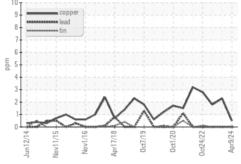


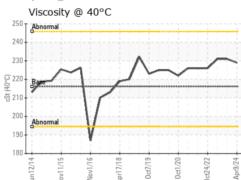


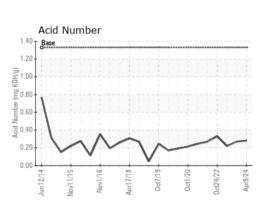
GRAPHS Ferrous Alloys



Non-ferrous Metals











Certificate 12367

Laboratory Sample No.

: RP0033052 Lab Number : 06147421 Unique Number : 10977499 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Apr 2024

Tested : 16 Apr 2024 Diagnosed

: 16 Apr 2024 - Don Baldridge

US 70821 Contact: STEPHEN MACIASZ smaciasz@flbr.fpcusa.com

FORMOSA PLASTICS INC

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)

F: (225)354-8218 Contact/Location: STEPHEN MACIASZ - FORBAT

T:

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