



OIL REPORT

LAB NUMBER: S119435

UNIT ID: N542LL

REPORT DATE: 9/26/2024

CLIENT ID: 123990

CODE: 20/88

PAYMENT: CC Online

UNIT	MAKE/MODEL: Rotax 912 UL	OIL TYPE & GRADE: Mobil 1 Racing 4T 10W/40
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 20 Hours
	ADDITIONAL INFO: Flight Design CTSW, S/N 5-647-614	

CLIENT	TONY CUTTER	PHONE: (530) 586-8566
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	CORNING, CA 96021	EMAIL: cutterbilt@gmail.com

COMMENTS	TONY: We're glad to see copper take a turn in the right direction for this Rotax. 15 ppm is just borderline high for the engine type, with any luck it will be in the normal range time (an outcome that would tell us brass/bronze parts are wearing well). Other metals remain in good shape. The only notable increase is in the form of lead and that's probably a bit of fuel blow-by. Fuel dilution was a little concerning back in 2022 but now it's cleared up based on the flashpoint and that helped the oil keep a normal viscosity. Check back next service.
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ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	20	UNIT / LOCATION AVERAGES	58				
	MI/HR on Unit	1,481		1,462				UNIVERSAL AVERAGES
	Sample Date	9/3/2024		6/25/2022				
	Make Up Oil Added							
	ALUMINUM	3	3	4				3
	CHROMIUM	0	0	0				1
	IRON	10	19	21				30
	COPPER	15	16	23				6
	LEAD	31	60	7				49
	TIN	2	2	3				1
	MOLYBDENUM	13	21	48				28
	NICKEL	1	1	2				1
	MANGANESE	0	0	0				1
	SILVER	0	0	0				0
	TITANIUM	0	0	0				0
	POTASSIUM	2	2	3				1
	BORON	227	157	162				89
	SILICON	4	6	7				8
	SODIUM	4	5	8				5
	CALCIUM	1656	2311	1992				2111
	MAGNESIUM	15	17	15				395
	PHOSPHORUS	934	1157	893				1179
	ZINC	1075	1374	1087				1361
	BARIUM	1	1	1				1

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	67.5	65-76	63.1				
	cSt Viscosity @ 100°C	12.28	11.6-14.8	11.10				
	Flashpoint in °F	455	>385	355				
	Fuel %	<0.5	<1.0	1.5				
	Antifreeze %	0.0	0.0	0.0				
	Water %	0.0	<0.1	0.0				
	Insolubles %	0.1	<0.6	0.1				
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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