



OIL REPORT

LAB NUMBER: S091284

UNIT ID: N4904B

REPORT DATE: 7/31/2024

CLIENT ID: 94499

CODE: 1/88

PAYMENT: CC: Visa

UNIT

MAKE/MODEL: Lycoming O-320-E2D

FUEL TYPE: Gasoline (Leaded)

ADDITIONAL INFO: Cessna 152, S/N: L-39615-27A

OIL TYPE & GRADE: Phillips XC (A/C) 20W/50

OIL USE INTERVAL: 43 Hours

CLIENT

RIAN KELLER
NORTHWEST AIRCRAFT MAINTENANCE
3301 NE CORNELL RD
STE B
HILLSBORO, OR 97124

PHONE: (503) 648-3670
FAX:
ALT PHONE:
EMAIL: rian@northwestaircraft.com

COMMENTS

RIAN: With no water present in this sample, we can issue N4904B a clean report this time! Without water contamination, we were able to run our flashpoint test to look for fuel, and the 455°F reading is high enough to rule out any significant amount of avgas in this oil. Insolubles were okay at 0.5% -- the oil wasn't overly oxidized. The viscosity is in spec for the Phillips XC 20W/50 in use. Wear metals stuck within close ranges of what we've come to expect from this O-320, so no mechanical concerns stick out. Looking good from here!

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	43	UNIT / LOCATION AVERAGES	44	33	23	33	41	UNIVERSAL AVERAGES
	MI/HR on Unit	2,120		2,078	2,034	2,598	1,953	1,920	
	Sample Date	6/24/2024		5/29/2024	4/16/2024	2/20/2024	11/22/2023	8/7/2023	
	Make Up Oil Added								
	ALUMINUM	3		3	4	4	5	6	
	CHROMIUM	5		6	8	8	7	9	
	IRON	25		24	25	23	26	37	
	COPPER	3		2	2	2	2	4	
	LEAD	3907		3444	3703	2903	3174	4218	
	TIN	1		3	0	1	0	1	
	MOLYBDENUM	0		0	0	0	0	0	
	NICKEL	1		1	1	1	1	1	
	MANGANESE	0		0	0	0	0	0	
	SILVER	0		0	0	0	0	0	
	TITANIUM	0		0	0	0	0	0	
	POTASSIUM	0		0	0	0	0	0	
	BORON	3		1	1	5	1	1	
	SILICON	3		3	3	4	4	3	
	SODIUM	2		2	2	1	1	1	
	CALCIUM	0		1	2	1	0	0	
	MAGNESIUM	0		0	0	0	0	0	
	PHOSPHORUS	3		0	1	1	2	2	
	ZINC	1		1	1	1	1	2	
	BARIUM	0		0	0	0	0	0	

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	92.0	86-105	89.6	90.9	89.7	94.7	93.1
	cSt Viscosity @ 100°C	18.45	17.0-21.8	17.88	18.20	17.90	19.11	18.73
	Flashpoint in °F	455	>430	BOIL	440	450	425	465
	Fuel %	<0.5	<1.0	-	<0.5	<0.5	TR	<0.5
	Antifreeze %	-		-	-	-	-	-
	Water %	0.0	0.0	POS	0.0	0.0	0.0	0.0
	Insolubles %	0.5	<0.6	0.4	0.5	0.4	0.3	0.3
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 www.blackstone-labs.com