

N8538P

1964 Commanche 400

Oil Analysis



MSN: 26-119

Prepared by the worldwide aviation specialists at RidgeAir, Inc.



OIL REPORT

LAB NUMBER: S338356

UNIT ID: N8538P

REPORT DATE: 1/8/2026

CLIENT ID: 287321

CODE: 20/1,193

PAYMENT: CC Online

UNIT

MAKE/MODEL: Lycoming IO-720-A1B
FUEL TYPE: Gasoline (Leaded)
ADDITIONAL INFO: Piper Cherokee, SN 26-119

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

CLIENT

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COMMENTS

JACOB: Thanks for taking my call and letting me know this is a break-in sample after the cylinder replacement, borescope/compressions are good, and it's performing well. This sample contains a cautionary amount of metal. Some might be from break-in, but not all of it. Copper (and alloy tin) is very high and may show trouble at bearings/bushings. Cylinder-area metals are also out of line (aluminum/chrome/iron). Nickel is from exhaust valve guides. Universal averages are based on ~40 hours of use. Silicon shows harmless sealers/lubes, and a trace fuel is okay. ~Susan

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	20	UNIT / LOCATION AVERAGES							UNIVERSAL AVERAGES
	MI/HR on Unit	175								
	Sample Date	12/31/2025								
	Make Up Oil Added									
	ALUMINUM	46								
	CHROMIUM	39								
	IRON	238								
	COPPER	164								
	LEAD	4391								
	TIN	9								
	MOLYBDENUM	0								
	NICKEL	6								
	MANGANESE	3								
	SILVER	0								
	TITANIUM	0								
	POTASSIUM	1								
	BORON	1								
	SILICON	24								
	SODIUM	4								
	CALCIUM	7								
	MAGNESIUM	56								
	PHOSPHORUS	618								
	ZINC	11								
	BARIUM	0								

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	96.5	86-105					
	cSt Viscosity @ 100°C	19.53	17.0-21.8					
	Flashpoint in °F	430	>430					
	Fuel %	TR	<1.0					
	Antifreeze %	-						
	Water %	0.0	0.0					
	Insolubles %	0.3	<0.6					
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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