



OIL REPORT

LAB NUMBER: L00164
 REPORT DATE: 3/12/2019
 CODE: 20/32

UNIT ID: N867DB
 CLIENT ID:
 PAYMENT: Prepaid

UNIT	MAKE/MODEL: Continental IO-550-BB18	OIL TYPE & GRADE: Phillips XC (A/C) 20W/50
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: 44 Hours
	ADDITIONAL INFO: Beech F33A, S/N: 578236, Superior Millennium	

CLIENT	
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COMMENTS You noted low compressions and an exhaust valve leak, and those comments confirm our findings: this engine is wearing heavily in the cylinder area and at the exhaust valve guides. Aluminum, chrome, and iron are from pistons, rings, cylinders, and other steel parts (and molybdenum is also a piston coating). Nickel is from the exhaust valve guides. Silicon could be a factor, if it's abrasive dirt, so check for air intake leaks. On the phone you mentioned replacing the offending cylinder and the air filter, so hopefully there's progress ahead. For now: Caution!

ELEMENTS IN PARTS PER MILLION			UNIT / LOCATION AVERAGES					UNIVERSAL AVERAGES
	MI/HR on Oil							
	MI/HR on Oil	44						
	MI/HR on Unit	1,833						
	Sample Date	2/28/2019						
	Make Up Oil Added							
	ALUMINUM	73						12
	CHROMIUM	66						11
	IRON	240						73
	COPPER	23						13
	LEAD	7272						5235
	TIN	6						2
	MOLYBDENUM	30						6
	NICKEL	23						11
	MANGANESE	2						1
	SILVER	0						0
	TITANIUM	0						0
	POTASSIUM	1						0
	BORON	2						1
	SILICON	59						9
	SODIUM	1						1
	CALCIUM	10						3
	MAGNESIUM	2						3
	PHOSPHORUS	103						467
	ZINC	6						9
	BARIUM	0						0

Values Should Be*

PROPERTIES						
	Value	Range				
SUS Viscosity @ 210°	84.3	86-105				
cSt Viscosity @ 100°C	16.58	17.0-21.8				
Flashpoint in °F	440	>430				
Fuel %	<0.5	<1.0				
Antifreeze %	-					
Water %	0.0	0.0				
Insolubles %	0.5	<0.6				
TBN						
TAN						
ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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