Report of the Month

This GO-300 has a problem. What's going on? To learn where the elements are coming from, click here.

UNIT			
MAKE/MODEL:	Continental GO-300	OIL TYPE & GRADE:	Phillips XC (A/C) 20W/50
FUEL TYPE:	Gasoline (Leaded)	OIL USE INTERVAL:	26 Hours
ADDITIONAL INFO:	Cessna C175, Mixed Chrome/Steel		

COMMENTS

Unfortunately, this is not a good report for your GO-300. This engine was making pretty steady trends a few years back, but aluminum, chrome, and iron have all skyrocketed in this sample. You mentioned a cylinder that has lower compression, so that will be a good place to start in looking for the problem. There could be other bad cylinders too -- this is a drastic change and a lot of metal. Silicon is up too -- it may show some sort of dirt in the system. Let us know what you find out--we're curious. This is a cautionary report.

ELEMENTS IN PARTS PER MILLION

MI/HR on Oil	26	UNIT / LOCATION AVERAGES	34	23	32	28	32	UNIVERSAL AVERAGES
MI/HR on Unit	1,139		1,119	1,090	1,076	1,052	1,031	
Sample Date	10/12/2013		4/27/2013	9/28/2012	3/9/2012	8/27/2011	4/14/2011	
Make Up Oil Added	2 qts		2 qts	2 qts	3 qts	3 qts	4 qts	
ALUMINUM	**128**	15	**35**	13	16	11	14	15
CHROMIUM	**70**	9	17	7	12	11	16	4
IRON	**115**	48	69	45	63	59	65	49
COPPER	12	7	9	6	7	7	7	12
LEAD	3526	2707	3834	2650	3643	2987	3249	1738
TIN	0	1	0	0	0	0	0	1
MOLYBDENUM	2	2	2	1	2	2	3	3
NICKEL	5	3	3	2	3	3	4	2
MANGANESE	2	1	1	1	1	1	1	1
SILVER	0	0	0	0	0	0	0	0
TITANIUM	0	0	0	0	0	0	0	0
POTASSIUM	2	1	0	2	0	0	3	1
BORON	0	1	1	1	0	0	1	1
SILICON	**25**	10	13	10	**15**	11	10	10
SODIUM	1	2	5	2	1	0	1	2
CALCIUM	7	31	7	6	6	6	5	25
MAGNESIUM	4	2	3	1	1	2	1	11
PHOSPHORUS	0	215	0	0				468
ZINC	1	2	2	2				6
BARIUM	0	0	0	0				0

PROPERTIES

		Values Should Be*						
SUS Viscosity @ 210°F	96.6	86-105	100.6	94.6				
cSt Viscosity @ 100°C	19.55	17.0-21.8	20.51	19.07				
Flashpoint in °F	480	>430	480	470				
Fuel %	<0.5	<1.0	<0.5	<0.5				
Antifreeze %	-		-	-				
Water %	0.0	0.0	0.0	0.0				
Insolubles %	0.4	<0.6	0.3	0.3				
TBN								
TAN								
ISO Code								

*** THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE**

The owner writes: Your report was right on the money. The number 5 piston broke the top ring and was beginning to come apart. That was the cylinder with the low compression during my annual. I changed out that whole cylinder, piston and all, with a new one from Continental. Thanks for the heads up!