



OIL REPORT

LAB NUMBER: F42434

UNIT ID: N3212T

REPORT DATE: 2/21/2013

CLIENT ID: 23123

CODE: 41/75

PAYMENT: CC: Discover

UNIT	MAKE/MODEL: Lycoming O-320-E2D	OIL TYPE & GRADE: Aircraft Engine Oil
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: 35 Hours
	ADDITIONAL INFO: Cessna 177; Eng S/N L-26623-27A, Nickel Cylds	

CLIENT	CHARLES MOUNT	PHONE: (904) 813-0636
	3504 MORNINGWOOD CT NE	FAX:
	SUWANEE, GA 30024	ALT PHONE:
		EMAIL: chuck@mountpoint.org

COMMENTS	CHARLES: The trace of fuel from the last report has cleared up, but you noted low compressions in the #2 and #3 cylinders, and that could be related to the metals found here. None are that much higher than we've seen in the past, but with the compression issues, they're noteworthy. We've suspected before that there may be chrome cylinders in place, but past records indicate nickel cylinders on board. Either way, chrome and iron indicate ring/cylinder wear, so we suspect a ring issue is responsible for the excess wear and low compressions. Let us know what you find.
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	MI/HR on Oil	35	UNIT / LOCATION AVERAGES	22	25	6	22	24	UNIVERSAL AVERAGES
	MI/HR on Unit	2,335		416	394	2,430	463	293	
	Sample Date	02/09/13		01/14/12	09/10/11	04/24/11	12/28/10	11/08/09	
	Make Up Oil Added	2 qts		1 qt	2 qts	0 qts	2 qts	0 qts	
ELEMENTS IN PARTS PER MILLION	ALUMINUM	6	7	4	5	3	11	8	5
	CHROMIUM	20	34	20	26	12	33	38	6
	IRON	47	47	34	34	27	128	42	24
	COPPER	7	8	6	6	3	6	6	5
	LEAD	2954	1998	2365	2300	954	2416	2406	2591
	TIN	1	2	4	3	0	0	0	1
	MOLYBDENUM	0	0	0	0	0	1	0	0
	NICKEL	6	4	5	5	2	6	4	2
	MANGANESE	1	0	0	0	0	1	0	0
	SILVER	0	0	0	0	0	0	0	0
	TITANIUM	0	0	0	0	0	0	0	0
	POTASSIUM	0	1	0	3	2	1	2	0
	BORON	1	0	1	0	0	1	2	0
	SILICON	4	8	4	4	3	5	8	5
	SODIUM	1	0	0	0	0	0	0	1
	CALCIUM	0	2	0	0	0	10	1	9
	MAGNESIUM	0	1	0	0	0	1	0	1
	PHOSPHORUS	26	79	4	0	3	0	1	457
	ZINC	2	3	1	0	0	6	2	4
	BARIUM	0	0	0	0	0	0	0	0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	94.5		85.8	90.7	93.4	90.3	88.5
	cSt Viscosity @ 100°C	19.05		16.97	18.15	18.79	18.05	17.62
	Flashpoint in °F	530	>430	460	515	490	480	490
	Fuel %	<0.5	<1.0	TR	<0.5	<0.5	<0.5	<0.5
	Antifreeze %	-		-	-	-	-	-
	Water %	0.0	<0.1	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.4	<0.6	0.3	0.0	0.2	0.3	0.3
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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