

SOUTHERN AIR GROUP

ATTN: STEVE GIVENS/COLE GIVENS
500 SKY HARBOR WAY
JEFFERSON GA 30549

Engine Model: CONT. T550

Aircraft Type: PA46-310P

Aircraft S/N: 46-0802

Tail No.: N711XL

Values in (parenthesis) below your results are average values from all our analysis data for the same engine model with similar engine hours and oil hours. See www.avlab.com/explain for detailed explanation of the statistical analysis used with your laboratory results.



**** CURRENT** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

<div>Sample Date: 4/17/2025</div> <div>Analysis Date: 4/23/2025</div> <div>Sample Number: P20</div> <div>Cylinder Type: STEEL</div> <div>TSN/TSO: Unknown</div> <div>Oil Hours: 30.2</div> <div>Filter Hours: 30.2</div> <div>Oil Added:</div> <div>Filter Wt. (mgs):</div> <div>Flashpoint(deg. F):</div> <div>H2O (ppm):</div> <div>Total Acid No.:</div>	*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
	Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
	23.2	2.6	6.5	3.9	N/A	N/A	10.5	3016	2.1	N/A	< 0.1	N/A
	(N/A)	(N/A)	(N/A)	(N/A)			(N/A)	(N/A)	(N/A)		(N/A)	
	*** FILTER ANALYSIS RESULTS ***											
		Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy						
		Amount:										
		Type:										
		Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 1** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 10/25/2021 Analysis Date: 11/23/2021 Sample Number: P34 Cylinder Type: STEEL TSN/TSO: 1344.5 Oil Hours: 21.1 Filter Hours: 21.1 Oil Added: Filter Wt. (mgs): Flashpoint(deg. F): H2O (ppm): Total Acid No.:	*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
	Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
	27.3 (67.6)	2.8 (6.0)	5.1 (21.1)	3.8 (13.3)	N/A	N/A	6.4 (7.3)	2306 (4,116)	2.5 (6.0)	N/A	< 0.1 (0.5)	N/A
	*** FILTER ANALYSIS RESULTS ***											
		Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy						
		Amount:										
		Type:										
		Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 2** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 1/13/2021 Analysis Date: 1/25/2021 Sample Number: P40 Cylinder Type: STEEL TSN/TSO: 1303.7 Oil Hours: 36.1 Filter Hours: 36.1 Oil Added: Filter Wt. (mgs): Flashpoint(deg. F): H2O (ppm): Total Acid No.:	*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
	Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
	75.4 (73.3)	4 (7.3)	25.5 (25.6)	17.7 (16.3)	N/A	N/A	17.2 (8.3)	5106 (5,843)	4.6 (6.1)	N/A	< 0.1 (0.8)	N/A
	*** FILTER ANALYSIS RESULTS ***											
		Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy						
		Amount:										
		Type:										
		Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 3** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 10/23/2020
Analysis Date: 12/1/2020
Sample Number: P15
Cylinder Type: STEEL
TSN/TSO: 1267.6
Oil Hours: 32.3
Filter Hours: 32.3
Oil Added:
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
46.5 (65.1)	4.1 (6.8)	9.7 (20.9)	10.1 (13.9)	N/A	N/A	16.5 (7.7)	3809 (5,307)	5.3 (5.9)	N/A	< 0.1 (0.7)	N/A
*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.
	Amount:										
	Type:										
	Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 4** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 7/1/2020
Analysis Date: 7/15/2020
Sample Number: P62
Cylinder Type: STEEL
TSN/TSO: 1235.3
Oil Hours: 41.8
Filter Hours: 41.8
Oil Added:
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
39.1 (76.7)	2.6 (7.5)	10.1 (25.5)	9 (17.3)	N/A	N/A	10.2 (8.3)	3148 (6,010)	5.9 (6.1)	N/A	< 0.1 (0.8)	N/A
*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.
	Amount:										
	Type:										
	Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 5** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 3/1/2020 Analysis Date: 3/9/2020 Sample Number: P74 Cylinder Type: STEEL TSN/TSO: 1216.9 Oil Hours: 23.4 Filter Hours: 23.4 Oil Added: 1 Filter Wt. (mgs): 201 Flashpoint(deg. F): H2O (ppm): Total Acid No.:		*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
		Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
		37.5 (68.0)	2.5 (6.7)	9.7 (20.1)	8.3 (12.9)	N/A	N/A	7.1 (8.4)	3510 (4,142)	3.3 (5.9)	N/A	0.1 (0.5)	N/A
		*** FILTER ANALYSIS RESULTS ***											
			Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy						
			Amount:		Trace O- 10%						Trace O- 10%	Major 40- 100%	
			Type:										
			Form:		Fines						Fines		

Comments: SAMPLE APPEARS NORMAL. PLEASE CONTACT THE ENGINE MANUFACTURER'S SERVICE REP IF FURTHER ASSISTANCE WITH ANALYSIS RESULT INTERPRETATION IS NEEDED.



**** PREVIOUS 6** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 10/25/2019 Analysis Date: 11/7/2019 Sample Number: P07 Cylinder Type: STEEL TSN/TSO: 655.4 Oil Hours: 32 Filter Hours: 32 Oil Added: 1 Filter Wt. (mgs): Flashpoint(deg. F): H2O (ppm): Total Acid No.:		*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
		Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
		43 (71.5)	4.8 (7.1)	8 (22.3)	7.8 (16.0)	N/A	N/A	7.3 (6.9)	3506 (5,272)	4 (5.5)	N/A	<0.1 (0.5)	N/A
		*** FILTER ANALYSIS RESULTS ***											
			Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy						
			Amount:										
			Type:										
			Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 7** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 5/14/2019
Analysis Date: 5/28/2019
Sample Number: P18
Cylinder Type: STEEL
TSN/TSO: 1161.5
Oil Hours: 12.1
Filter Hours: 12.1
Oil Added:
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***

Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
23.9 (52.3)	3.3 (5.2)	9.5 (18.9)	4.9 (11.1)	N/A	N/A	5 (7.0)	2372 (3,369)	2.7 (5.6)	N/A	< 0.1 (0.5)	N/A

*** FILTER ANALYSIS RESULTS ***

		Stainless	Carbon	Alloy	Bearing						
	Material:	Steel	Steel	Steel	Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.
	Amount:										
	Type:										
	Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 8** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 3/10/2019
Analysis Date: 3/26/2019
Sample Number: P13
Cylinder Type: STEEL
TSN/TSO: 611.3
Oil Hours: 27.3
Filter Hours: 27.3
Oil Added: 2
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***

Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
26 (62.8)	3.8 (6.9)	6.1 (19.6)	3.8 (14.0)	N/A	N/A	4.7 (6.7)	3592 (4,659)	3.8 (5.5)	N/A	< 0.1 (0.5)	N/A

*** FILTER ANALYSIS RESULTS ***

		Stainless	Carbon	Alloy	Bearing						
	Material:	Steel	Steel	Steel	Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.
	Amount:										
	Type:										
	Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.



**** PREVIOUS 9** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

A.L.A.R.M. Meter: Normal Elevated High

Analysis Date: 6/22/2018
Sample Number: P25
Cylinder Type: STEEL
TSN/TSO: 1070.2
Oil Hours: 23.3
Filter Hours: 23.3
Oil Added:
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
36.9 (63.9)	9.4 (6.5)	6.1 (19.6)	7.6 (12.9)	N/A	N/A	11.4 (7.6)	2180 (4,324)	10 (5.9)	N/A	< 0.1 (0.5)	N/A
*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.
	Amount:										
	Type:										
	Form:										

Comments: ALL OIL VALUES SEEM FINE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.