

[Print](#)

ANALYSIS RESULTS - ENGINE S/N: 1214747BA

CLASSIC AVIATION INC
ATTN: HAVEN HICK/SHANE VANDE VOORT

Print Date: 11/21/2019
Engine Model: CONT. 520
Aircraft Type: V35
Aircraft S/N: D-8581
Tail No.: N6245V

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													
Sample Date: 6/26/2019 Analysis Date: 7/9/2019 Sample Number: P20 Cylinder Type: STEEL TSN/TSO: 1931.26 Oil Hours: 49 Filter Hours: 49 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.	
	29.4 (45.2)	1.3 (3.8)	1.7 (7.9)	0.4 (6.1)	N/A	N/A	2.9 (7.3)	3264 (5,089)	1.9 (5.1)	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 1 SAMPLE APPEARS NORMAL. Send next sample at normal interval. A.L.A.R.M. Meter: Normal Elevated High													
Sample Date: 2/18/2019 Analysis Date: 3/15/2019 Sample Number: P19 Cylinder Type: STEEL TSN/TSO: 1882.76 Oil Hours: 51 Filter Hours: 51 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.	
	31 (45.8)	1.6 (3.9)	1.4 (8.2)	1.6 (6.2)	N/A	N/A	4.9 (7.4)	3187 (5,250)	2.3 (5.1)	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 2 SAMPLE APPEARS NORMAL. Send next sample at normal interval. A.L.A.R.M. Meter: Normal Elevated High													
Sample Date: 6/18/2018 Analysis Date: 6/28/2018 Sample Number: P41 Cylinder Type: STEEL TSN/TSO: 1832.66 Oil Hours: 57 Filter Hours: 57 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.	
	23.6 (48.5)	1.6 (4.3)	1.4 (8.3)	0.2 (6.4)	N/A	N/A	2.7 (8.4)	3321 (5,114)	0.1 (5.1)	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 3 SAMPLE APPEARS NORMAL. Send next sample at normal interval. A.L.A.R.M. Meter: Normal Elevated High													
Sample Date: 1/25/2018 *** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***													

Analysis Date: 2/14/2018
 Sample Number: P53
 Cylinder Type: STEEL
 TSN/TSO: 1776
 Oil Hours: 26
 Filter Hours: 26
 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.
12.8 (35.4)	1.5 (3.6)	1.6 (5.6)	1 (4.6)	N/A	N/A	2.4 (6.5)	2605 (3,300)	1.4 (5.5)	N/A	< 0.1 (0.6)	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: 10/7/2017
 Analysis Date: 11/20/2017
 Sample Number: P103
 Cylinder Type: STEEL
 TSN/TSO: 1750
 Oil Hours: 50
 Filter Hours: 50
 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.
13.7 (45.2)	< 0.1 (3.9)	0.3 (8.1)	< 0.1 (6.1)	N/A	N/A	< 0.1 (7.2)	2706 (5,158)	0.3 (5.1)	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 5 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 6/9/2017
 Analysis Date: 7/6/2017
 Sample Number: P110
 Cylinder Type: STEEL
 TSN/TSO: 1700
 Oil Hours: 60
 Filter Hours: 60
 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.
19.7 (51.3)	0.6 (4.7)	1.3 (7.4)	0.4 (6.5)	N/A	N/A	2.6 (8.3)	2731 (5,550)	1.5 (5.1)	N/A	< 0.1 (0.9)	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 6 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 1/3/2017
 Analysis Date: 2/10/2017
 Sample Number: P48
 Cylinder Type: STEEL
 TSN/TSO: 1640.36
 Oil Hours: 39
 Filter Hours: 39
 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.
18.7 (40.1)	0.5 (4.2)	1.8 (6.6)	1.3 (5.5)	N/A	N/A	4 (7.6)	2842 (4,202)	2.8 (5.2)	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.

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

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

Sample Date: 7/9/2016 Analysis Date: 7/25/2016 Sample Number: P92 Cylinder Type: STEEL TSN/TSO: 1601 Oil Hours: 49 Filter Hours: 49 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.
	18.2 (44.9)	1.4 (4.1)	1.7 (8.0)	0.6 (6.2)	N/A	N/A	3.7 (7.2)	2207 (5,210)	2.1 (5.1)	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 8 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 5/14/2016 Analysis Date: 6/10/2016 Sample Number: P31 Cylinder Type: STEEL TSN/TSO: 1552 Oil Hours: 52 Filter Hours: 52 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.
	24.4 (45.9)	1.9 (4.2)	1.8 (8.7)	0.8 (6.3)	N/A	N/A	4.4 (7.3)	3929 (5,314)	3 (5.1)	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 9 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 3/14/2016 Analysis Date: 4/25/2016 Sample Number: P95 Cylinder Type: STEEL TSN/TSO: 1500 Oil Hours: 45.5 Filter Hours: 45.5 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.
	26.6 (45.2)	2.6 (4.2)	1.8 (8.0)	1.2 (6.2)	N/A	N/A	6.5 (7.7)	3321 (5,122)	2 (5.2)	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 10 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 2/4/2016 Analysis Date: 2/17/2016 Sample Number: P01 Cylinder Type: STEEL TSN/TSO: 1455 Oil Hours: 45 Filter Hours: 45	*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
	Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
	26.7 (44.8)	2.2 (4.1)	1.7 (6.6)	1.7 (6.2)	N/A	N/A	5.5 (8.2)	4595 (4,884)	2.6 (5.2)	N/A	< 0.1 (0.6)	N/A

Oil Added:
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

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

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

Sample Date: 12/24/2015
Analysis Date: 1/14/2016
Sample Number: P67
Cylinder Type: STEEL
TSN/TSO: 1410
Oil Hours: 61
Filter Hours: 61
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.
30.4 (56.3)	2.6 (5.4)	3.8 (9.3)	2.5 (7.8)	N/A	N/A	6.2 (8.3)	4334 (5,761)	2.4 (5.8)	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 12 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 10/22/2015
Analysis Date: 11/24/2015
Sample Number: P56
Cylinder Type: STEEL
TSN/TSO: 1349
Oil Hours: 47
Filter Hours: 47
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.
30.8 (43.9)	2.3 (4.2)	4.7 (7.9)	2.7 (6.2)	N/A	N/A	6 (7.3)	4415 (5,246)	3.1 (5.1)	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 13 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 9/5/2015
Analysis Date: 9/21/2015
Sample Number: P93
Cylinder Type: STEEL
TSN/TSO: 1302
Oil Hours: 45
Filter Hours: 45
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.
24 (44.3)	1.8 (4.1)	2.4 (6.5)	1.9 (6.2)	N/A	N/A	4.6 (7.7)	3509 (4,970)	4.3 (5.2)	N/A	0.3 (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 14 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 7/22/2015 Analysis Date: 8/6/2015 Sample Number: P73 Cylinder Type: STEEL TSN/TSO: 1256 Oil Hours: 40 Filter Hours: 40 Oil Added: 3 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.
	20.8 (43.5)	2.4 (4.2)	3 (6.2)	2.2 (6.0)	N/A	N/A	5 (7.7)	3312 (4,231)	2.8 (5.4)	N/A	< 0.1 (0.6)	N/A
	*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.	
	Amount:											
	Type:											
	Form:											

Comments:

** PREVIOUS 15 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 5/22/2015 Analysis Date: 6/3/2015 Sample Number: P48 Cylinder Type: STEEL TSN/TSO: 1216 Oil Hours: 52 Filter Hours: 52 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.
	18.8 (46.7)	1.6 (4.3)	2.6 (8.7)	1.4 (6.4)	N/A	N/A	4.7 (7.4)	3210 (5,393)	3.6 (5.0)	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 16 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 2/5/2015 Analysis Date: 2/20/2015 Sample Number: P45 Cylinder Type: STEEL TSN/TSO: 109 Oil Hours: 28 Filter Hours: 28 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.
	21.3 (40.0)	1.4 (8.5)	3.3 (6.3)	2.2 (11.3)	N/A	N/A	6.7 (11.3)	3184 (3,312)	4.5 (11.0)	N/A	< 0.1 (0.9)	N/A
	*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.	
	Amount:											
	Type:											
	Form:											

Comments:

** PREVIOUS 17 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 11/18/2014 Analysis Date: 12/31/2014 Sample Number: P43 Cylinder Type: STEEL TSN/TSO: 1055 Oil Hours: 47 Filter Hours: 47 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.
	30.4 (45.9)	1.4 (4.1)	4.1 (8.5)	3.1 (6.3)	N/A	N/A	8.4 (7.8)	3955 (5,277)	4 (5.2)	N/A	< 0.1 (0.6)	N/A
	*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.	
	Amount:											

Type:												
Form:												

Comments:

**** PREVIOUS 18** SAMPLE APPEARS NORMAL. Send next sample at normal interval.A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 9/6/2014 Analysis Date: 9/26/2014 Sample Number: P94 Cylinder Type: STEEL TSN/TSO: 1008 Oil Hours: 50 Filter Hours: 50 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.
	32 (46.4)	2.6 (4.1)	4.4 (8.5)	5.3 (6.4)	N/A	N/A	11.5 (7.4)	3734 (5,326)	5.8 (4.9)	N/A	< 0.1 (0.6)	N/A
	*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.	
	Amount:											
	Type:											
	Form:											

Comments:

**** PREVIOUS 19** SAMPLE APPEARS NORMAL. Send next sample at normal interval.A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 6/14/2014 Analysis Date: 7/9/2014 Sample Number: P57 Cylinder Type: STEEL TSN/TSO: 958 Oil Hours: 49 Filter Hours: 49 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.
	23.2 (46.1)	1.8 (4.0)	1.9 (8.3)	3.1 (6.5)	N/A	N/A	8 (7.3)	3753 (5,269)	5.3 (5.1)	N/A	< 0.1 (0.6)	N/A
	*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.	
	Amount:											
	Type:											
	Form:											

Comments:

**** PREVIOUS 20** SAMPLE APPEARS NORMAL. Send next sample at normal interval.A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 4/5/2014 Analysis Date: 4/18/2014 Sample Number: P40 Cylinder Type: STEEL TSN/TSO: 256 Oil Hours: 46 Filter Hours: 46 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.
	24.4 (50.0)	2.8 (6.9)	1.7 (6.9)	2.7 (10.3)	N/A	N/A	6 (10.8)	4062 (5,383)	8.7 (7.3)	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:

**** PREVIOUS 21** SAMPLE APPEARS NORMAL. Send next sample at normal interval.A.L.A.R.M. Meter: Normal Elevated High

Sample Date: 11/29/2013 Analysis Date: 12/12/2013 Sample Number: P77 Cylinder Type: STEEL TSN/TSO: 210	*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***											
	Iron	Copper	Nickel	Chromium	Silver	Magn.	Alum.	Lead	Silicon	Titanium	Tin	Moly.
	20 (51.7)	1.7 (7.5)	1.3 (7.6)	1.9 (10.6)	N/A	N/A	5.6 (12.9)	3048 (4,780)	6.7 (8.9)	N/A	< 0.1 (0.9)	N/A

Oil Hours: 42
Filter Hours: 42
Oil Added:
Filter Wt. (mgs):
Flashpoint(deg. F):
H2O (ppm):
Total Acid No.:

*** FILTER ANALYSIS RESULTS ***

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

Comments:

** PREVIOUS 22 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

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

Sample Date: 9/8/2013
Analysis Date: 10/8/2013
Sample Number: P85
Cylinder Type: STEEL
TSN/TSO: 170.6
Oil Hours: 50.3
Filter Hours: 50.3
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.
25.2 (47.5)	4 (9.8)	2.1 (6.3)	4.1 (12.2)	N/A	N/A	7.7 (12.2)	2997 (5,286)	9.2 (8.7)	N/A	0.3 (0.9)	N/A

*** FILTER ANALYSIS RESULTS ***

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

Comments:

** PREVIOUS 23 ** SEE LAB COMMENTS **

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

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

Sample Date: 4/13/2013
Analysis Date: 4/23/2013
Sample Number: P33
Cylinder Type: STEEL
TSN/TSO: 25.2
Oil Hours: 25
Filter Hours: 25
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.
20.4 (37.3)	9.2 (24.2)	0.1 (3.5)	3.1 (12.1)	N/A	N/A	13.2 (10.6)	1474 (1,620)	10.8 (15.5)	N/A	< 0.1 (1.9)	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 FOR THE ENGINE BREAK-IN CYCLE. WE WILL CONTINUE TO MONITOR THIS ENGINE ON YOUR NEXT SAMPLE. PLEASE CONTACT THE ENGINE MANUFACTURER'S SERVICE REP IF FURTHER ASSISTANCE IS NEEDED.

** PREVIOUS 24 SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

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

Sample Date: 10/8/2012
Analysis Date: 10/26/2012
Sample Number: P01
Cylinder Type: STEEL
TSN/TSO: 675
Oil Hours: 25
Filter Hours: 25
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.
62 (43.2)	4 (4.1)	2 (6.1)	6 (5.7)	N/A	N/A	11 (8.6)	2962 (3,524)	6 (5.8)	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:


**** PREVIOUS 25** SAMPLE APPEARS NORMAL. Send next sample at normal interval.

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

Sample Date: 9/20/2010 Analysis Date: 10/6/2010 Sample Number: P07 Cylinder Type: STEEL TSN/TSO: 649 Oil Hours: 3 Filter Hours: 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.
	48.2 (58.2)	1.4 (2.9)	0.9 (5.3)	1.9 (5.5)	N/A	N/A	1.1 (15.5)	802.2 (1,652)	3.6 (6.4)	N/A	< 0.1 (0.3)	N/A
	*** FILTER ANALYSIS RESULTS ***											
	Material:	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.	
	Amount:											
	Type:											
Form:												

Comments: NOTE: SAMPLE WAS TAKEN COLD.

**** PREVIOUS 26** WE WILL MONITOR WEAR METAL TREND.

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

Sample Date: 6/19/2009 Analysis Date: 6/30/2009 Sample Number: P25 Cylinder Type: STEEL TSN/TSO: 646 Oil Hours: 19 Filter Hours: 19 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.
	61.8 (47.4)	2.2 (3.4)	1.2 (6.0)	2.7 (6.6)	N/A	N/A	12.6 (8.4)	2572 (3,042)	4.5 (5.4)	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: NOTE FIRST SAMPLE SEEN. ALL OIL WEAR METAL VALUES SEEM FINE. WE WILL MONITOR YOUR NEXT SAMPLE TO ESTABLISH A BASELINE FOR WEAR METAL TREND.