POLARIS Laboratories

Lubricant Analysis Report

North America: +1-877-808-3750
Latin America: +1-317-808-3750 / +502-3093-6466 (WhatsApp)
Europe: +1-317-808-3750

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number:	122750-0001-0000	Component ID:	#4796-1(2)	Tracking Number:	00009611924
Company Name:	ARCH OIL COMMENTS	Secondary ID:	HONDA S2000 AP1 F20C2	Lab Number:	Z-157660
Contact:		Component Type:	UNLEADED GASOLINE ENGINE	Lab Location:	Poznan
Address:		Manufacturer:	HONDA	Data Analyst:	CMD
		Model:	S2000	Sampled:	09-Aug-2020
Phone Number:		Application:	AUTOMOTIVE	Received:	07-Oct-2020
		Sump Capacity:	5 L	Completed:	08-Oct-2020

Filter Information		Miscellaneous Information		Product Information	
Filter Type:	FULLFLOW	Miscellaneous:	#4796-2	Product Manufacturer:	RAVENOL
Micron Rating:	0			Product Name:	VOLLSYNTH TURBO VST
				Viscosity Grade:	SAE 5W40

Comments	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Silicon is at a MODERATE LEVEL; SILICON sources can be abrasives (dirt, Alumina Silica), seals and gasket material, lube additive or lube supplement, and/or environmental contaminant; FUEL DILUTION is at a MINOR LEVEL. FUEL DILUTION has caused viscosity to decrease slightly below grade; Please submit a new (unused) sample of this fluid for BASELINE REFERENCE. Lubricant change acknowledged. Your note was taken into consideration.

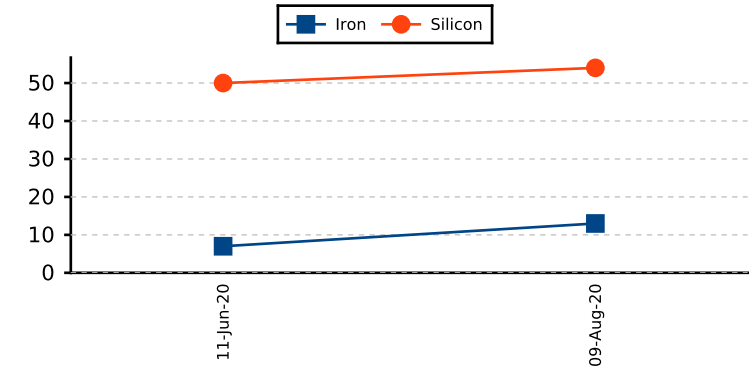
	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)						Additive Metals (ppm)				
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
1	7	0	0	3	6	1	0	0	0	0	50	17	0	0	14	0	0	0	26	8	2365	0	1964	2211
2	13	0	0	4	2	0	0	0	0	0	54	10	0	0	7	0	0	0	43	12	2974	0	1995	2259

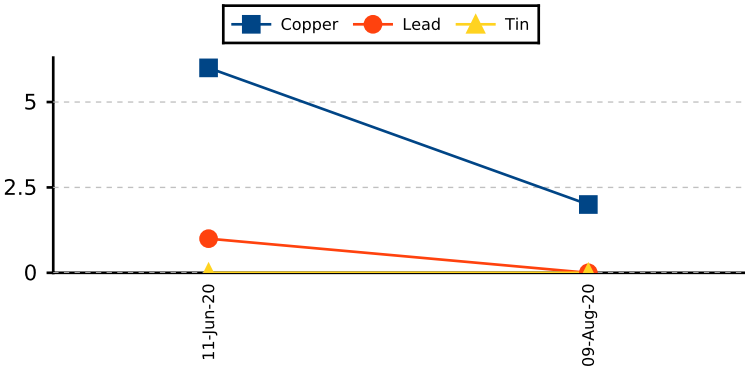
	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time km	Unit Time km	Lube Change	Lube Added L	Filter Change	Fuel Dilution % Vol	Soot % Vol	Water % Vol	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH/g	Base No. D4739 mg KOH/g	Oxidation abs/cm	Nitration abs/0.1 mm
1	11-Jun-2020	07-Oct-2020	282	84744	Yes	5	Unk	<1 - Estimate	<.1	<.1 - FTIR		11.8		7.36	10	4
2	09-Aug-2020	07-Oct-2020	478	85222	Yes	0	Unk	1.9 - GC	<.1	<.1 - FTIR		11.9		9.23	10	6

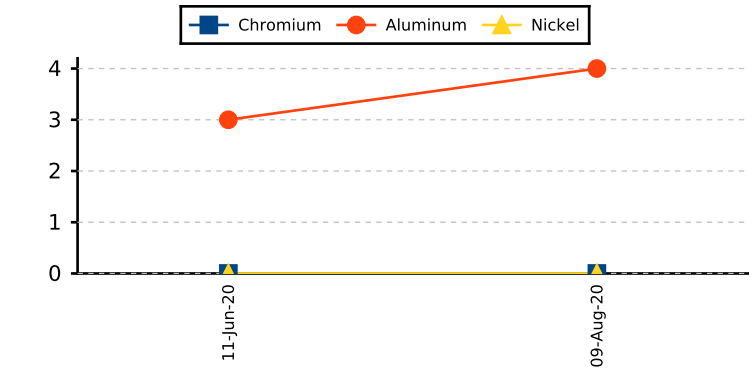
	Particle Count (particles/mL)										Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	Test Method	
1	//										
2	//										

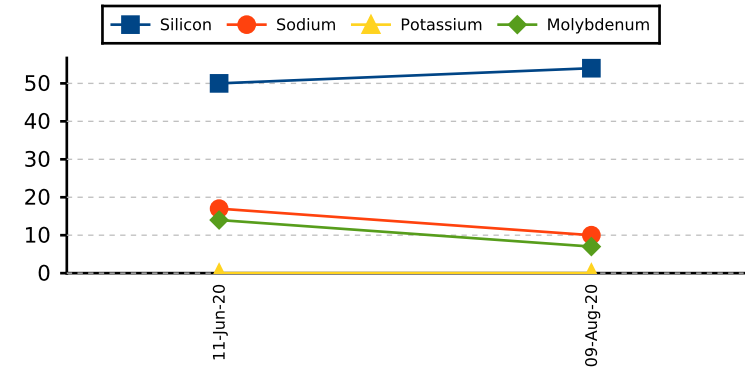
Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Results relate only to the items tested. Missing fluid or component information limits the evaluation. No warranty is expressed or implied. Measurement uncertainty available upon request.

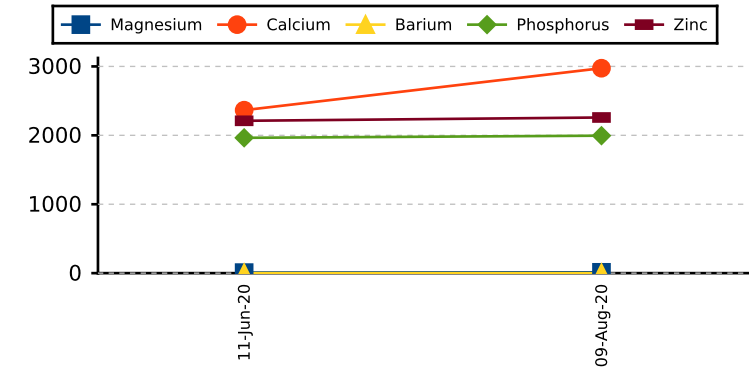
Historical Comments	1	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Silicon is at a MODERATE LEVEL; SILICON sources can be abrasives (dirt, Alumina Silica), seals and gasket material, lube additive or lube supplement, and/or environmental contaminant; Lubricant change acknowledged. Please provide missing FLUID PRODUCT NAME to compare data to the correct standards.

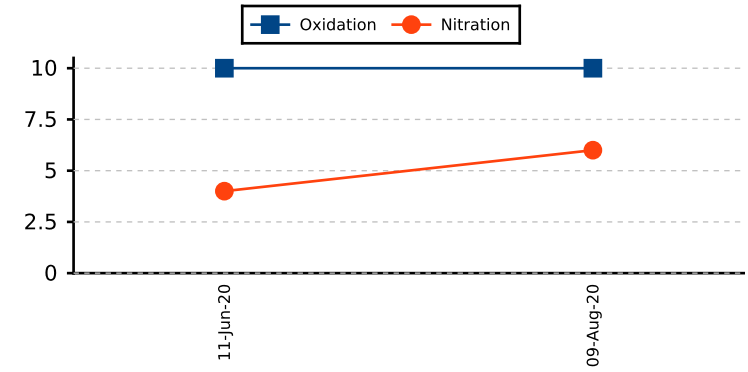

Iron
Silicon
50
40
30
20
10
0
11-Jun-20
09-Aug-20

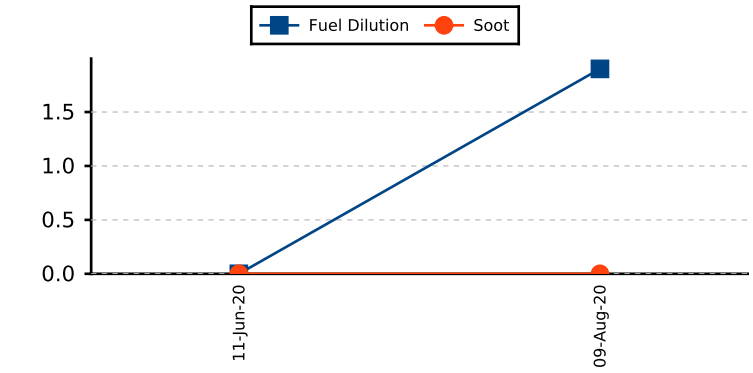

Copper
Lead
Tin
5
2.5
0
11-Jun-20
09-Aug-20

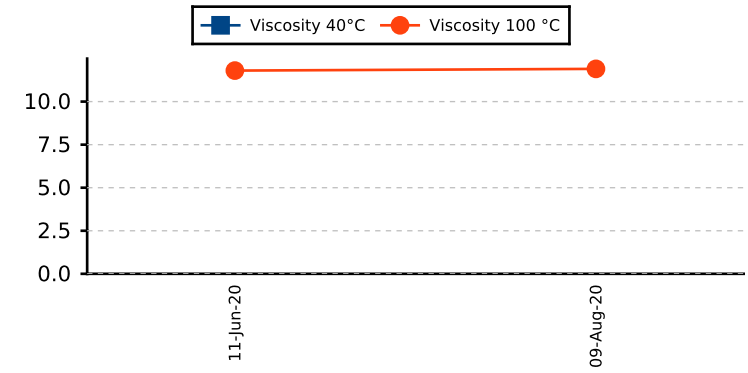

Chromium
Aluminum
Nickel
4
3
2
1
0
11-Jun-20
09-Aug-20

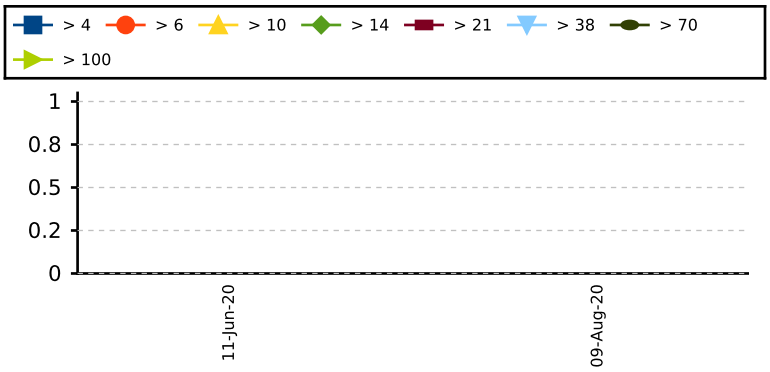

Silicon
Sodium
Potassium
Molybdenum
50
40
30
20
10
0
11-Jun-20
09-Aug-20

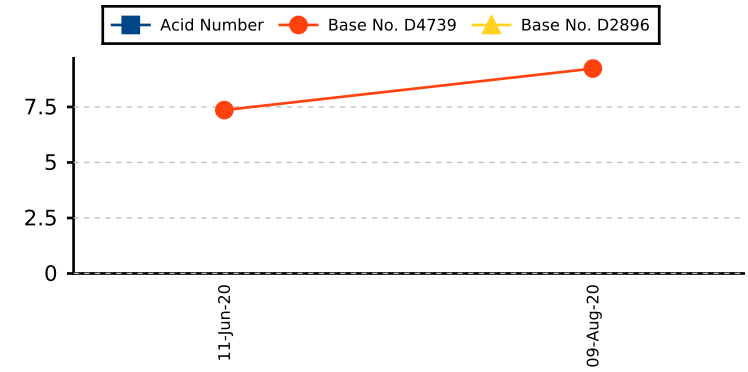

Magnesium
Calcium
Barium
Phosphorus
Zinc
3000
2000
1000
0
11-Jun-20
09-Aug-20


Oxidation
Nitration
10
7.5
5
2.5
0
11-Jun-20
09-Aug-20


Fuel Dilution
Soot
1.5
1.0
0.5
0.0
11-Jun-20
09-Aug-20


Viscosity 40°C
Viscosity 100 °C
10.0
7.5
5.0
2.5
0.0
11-Jun-20
09-Aug-20


> 4
> 6
> 10
> 14
> 21
> 38
> 70
> 100
1
0.8
0.5
0.2
0
11-Jun-20
09-Aug-20


Acid Number
Base No. D4739
Base No. D2896
7.5
5
2.5
0
11-Jun-20
09-Aug-20