



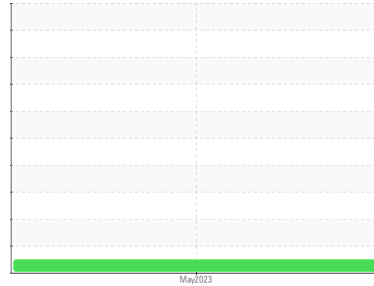
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
E9 RULer Conductivity
 Machine Id
SOLAR E9 Solar Titan 130
 Component
Gas Turbine
 Fluid
ROYAL PURPLE SYNFILM 32 (1081 GAL)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Conductivity is acceptable at 256 pS.

Wear

All component wear rates are normal.

Contamination

MPC (Membrane Patch Colorimetry) test indicates acceptable levels of varnish present. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0745596	---	---
Sample Date	Client Info	14 May 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		NORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>15	0	---	---
Chromium ppm ASTM D5185m	>4	0	---	---
Nickel ppm ASTM D5185m	>2	0	---	---
Titanium ppm ASTM D5185m		<1	---	---
Silver ppm ASTM D5185m		0	---	---
Aluminum ppm ASTM D5185m	>10	3	---	---
Lead ppm ASTM D5185m		0	---	---
Copper ppm ASTM D5185m	>5	2	---	---
Tin ppm ASTM D5185m	>5	<1	---	---
Vanadium ppm ASTM D5185m		0	---	---
Cadmium ppm ASTM D5185m		0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m		0	---	---
Barium ppm ASTM D5185m		0	---	---
Molybdenum ppm ASTM D5185m		0	---	---
Manganese ppm ASTM D5185m		<1	---	---
Magnesium ppm ASTM D5185m	90	79	---	---
Calcium ppm ASTM D5185m		16	---	---
Phosphorus ppm ASTM D5185m		0	---	---
Zinc ppm ASTM D5185m		22	---	---
Sulfur ppm ASTM D5185m		19392	---	---

CONTAMINANTS

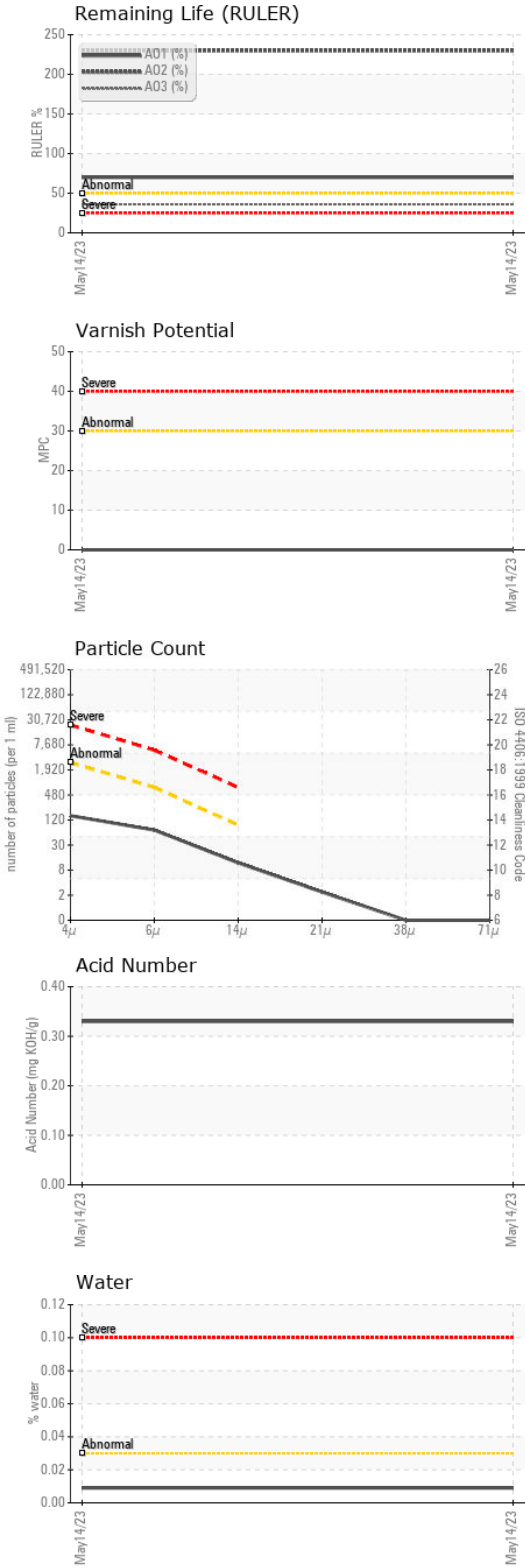
method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>15	<1	---	---
Sodium ppm ASTM D5185m		12	---	---
Potassium ppm ASTM D5185m	>20	0	---	---
Water % ASTM D6304	>0.03	0.009	---	---
ppm Water ppm ASTM D6304	>300	90.3	---	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>2500	134	---	---
Particles >6µm ASTM D7647	>640	61	---	---
Particles >14µm ASTM D7647	>80	10	---	---
Particles >21µm ASTM D7647	>20	2	---	---
Particles >38µm ASTM D7647	>4	0	---	---
Particles >71µm ASTM D7647	>3	0	---	---
Oil Cleanliness ISO 4406 (c)	>18/16/13	14/13/10	---	---



OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.33	---	---
Anti-Oxidant 1	%	ASTM D6971	70	---	---
Anti-Oxidant 2	%	ASTM D6971	230	---	---
Anti-Oxidant 3	%	ASTM D6971	36	---	---
MPC Varnish Potential	Scale	ASTM D7843	0	---	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.03	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	32.1	---
Resistivity	10 ¹¹ ohmcm	ASTM D1169		256	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				<i>no image</i>	<i>no image</i>
Bottom				<i>no image</i>	<i>no image</i>
MPC				<i>no image</i>	<i>no image</i>



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0745596 **Received** : 18 May 2023
Lab Number : **05850577** **Diagnosed** : 06 Jun 2023
Unique Number : 10479932 **Diagnostician** : Doug Bogart
Test Package : AOM 1 (Additional Tests: KF, RESISTIVITY)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

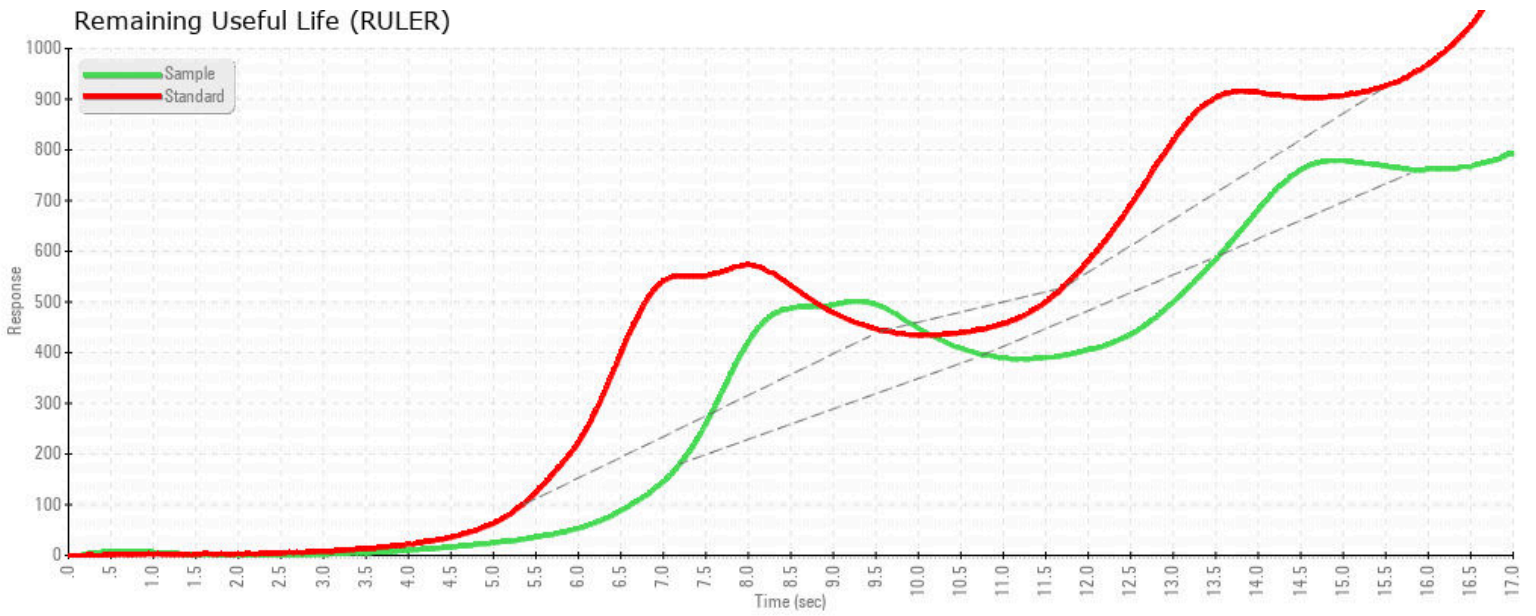
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Conoco Phillips ALASKA INC
 C/O LAF (ALPINE), 6441 S AIRPARK PL
 ANCHORAGE, AK
 US 99502

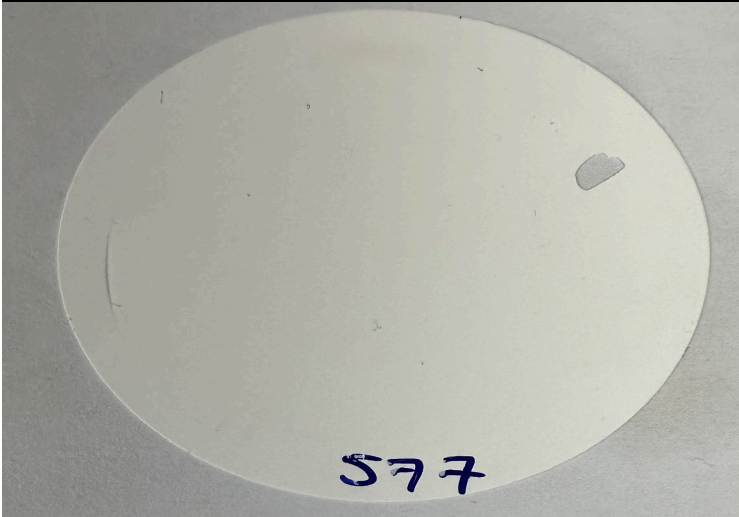
Contact: Chris Van Ryzin Ben DeRaeve
 alp1084@conocophillips.com

T: (907)670-4128

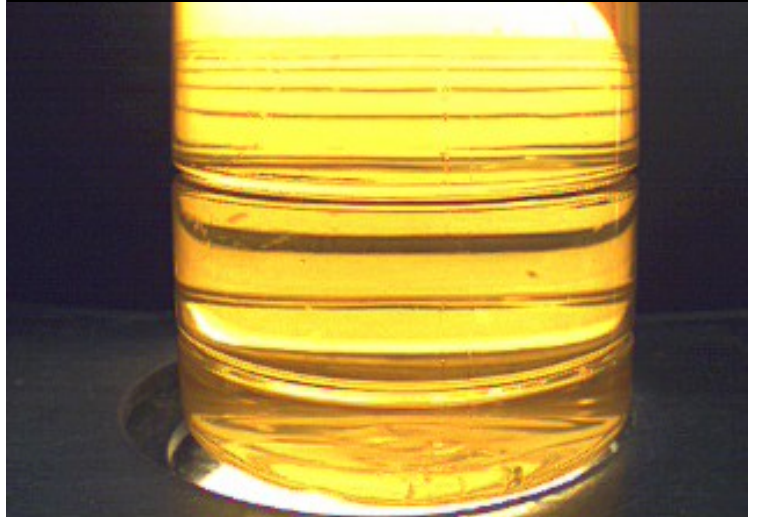
F: (907)670-4137



MPC (Varnish Test)



Sample Color & Clarity



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