



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
YB6211688
 Component
Diesel Engine
 Fluid
SCHAEFFER 700 Synshield 15w40 (9 GAL)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please note that this is a corrected copy for data entry updates.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05299000	---	---
Sample Date		Client Info		29 Jun 2021	---	---
Machine Age	hrs	Client Info		3340	---	---
Oil Age	hrs	Client Info		382	---	---
Filter Age	hrs	Client Info		382	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	32	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	0	---	---
Lead	ppm	ASTM D5185m	>40	11	---	---
Copper	ppm	ASTM D5185m	>330	3	---	---
Tin	ppm	ASTM D5185m	>15	1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

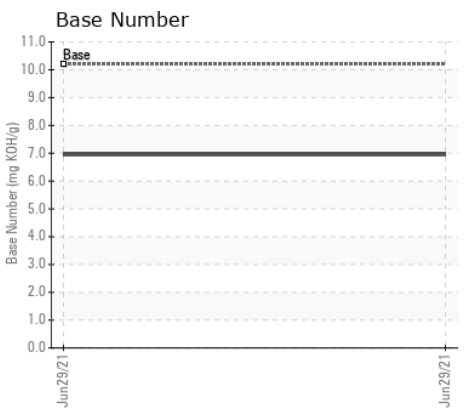
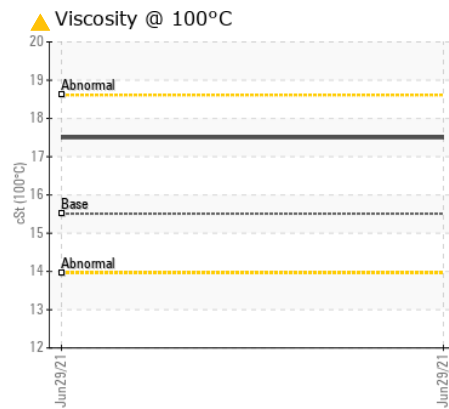
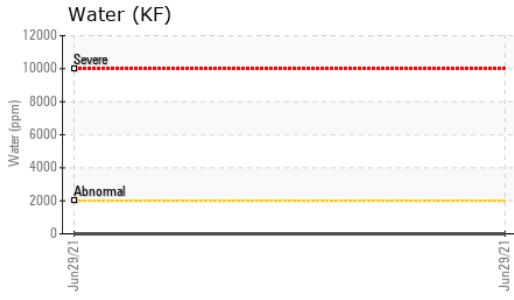
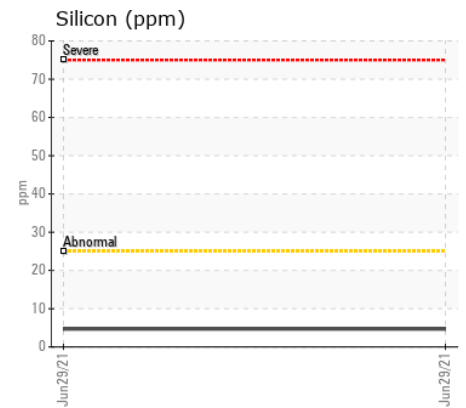
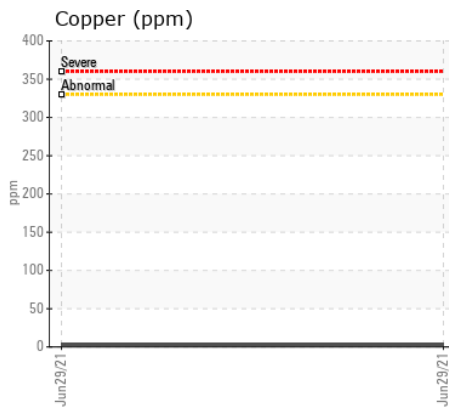
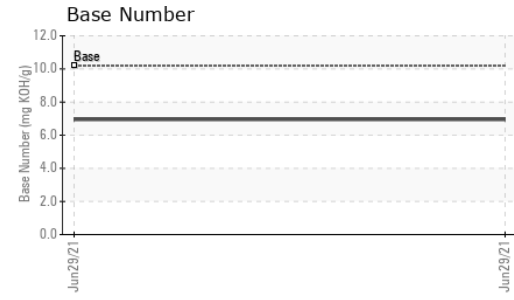
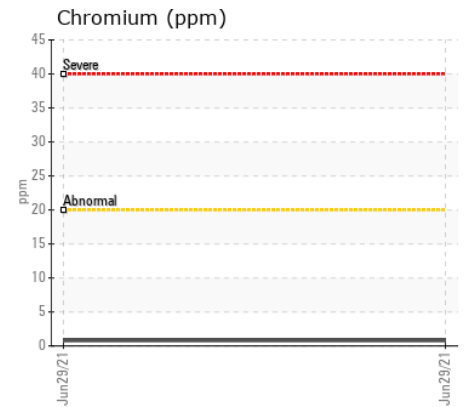
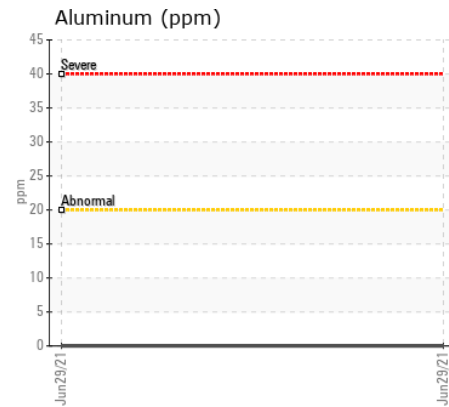
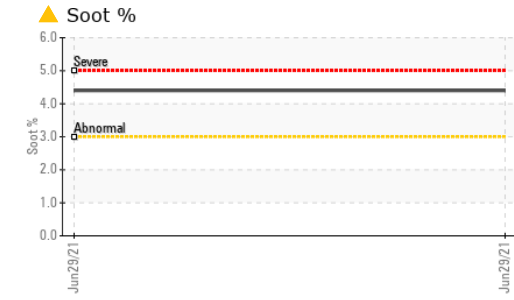
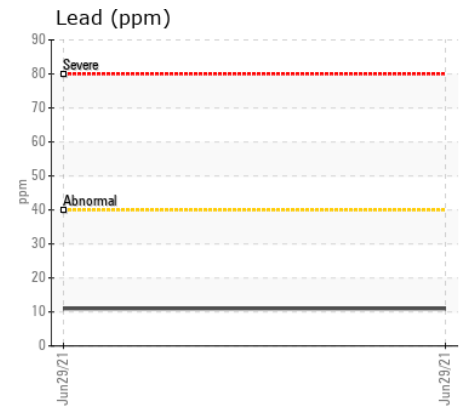
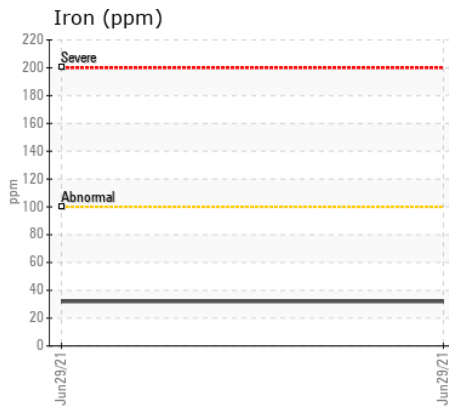
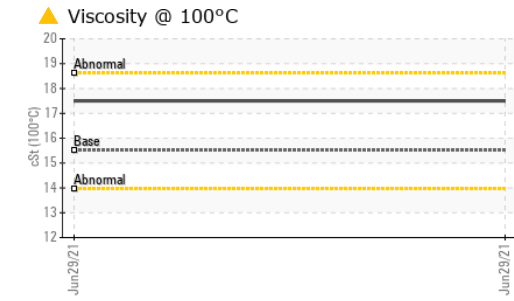
There is an abnormal amount of solids and carbon present in the oil.

Silicon	ppm	ASTM D5185m	>25	5	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>5	<1.0	---	---
Water	%	ASTM D6304	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	▲ 4.4	---	---
Nitration	Abs/cm	*ASTM D7624	>20	14.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	32.1	---	---
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	>0.2	NEG	---	---

FLUID CONDITION

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		10	---	---
Boron	ppm	ASTM D5185m		57	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		90	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		84	---	---
Calcium	ppm	ASTM D5185m		2450	---	---
Phosphorus	ppm	ASTM D5185m		1087	---	---
Zinc	ppm	ASTM D5185m		1215	---	---
Sulfur	ppm	ASTM D5185m		4652	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	6.95	---	---
Visc @ 100°C	cSt	ASTM D445	15.51	▲ 17.5	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05299000 **Received** : 09 Jul 2021
Lab Number : 05299000 **Diagnosed** : 19 Aug 2021
Unique Number : 9577960 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: KF)

WEST HILLS JV
 43667 LAKE RD E
 SPRAGUE, WA
 US 99032
 Contact: RON GROGAN

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)

T:
F: