



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**11614**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 5W30 (--- QTS)**

## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0924515	---	---
Sample Date		Client Info		19 Apr 2024	---	---
Machine Age	mls	Client Info		6457	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	22	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	4	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	23	---	---
Tin	ppm	ASTM D5185m	>15	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

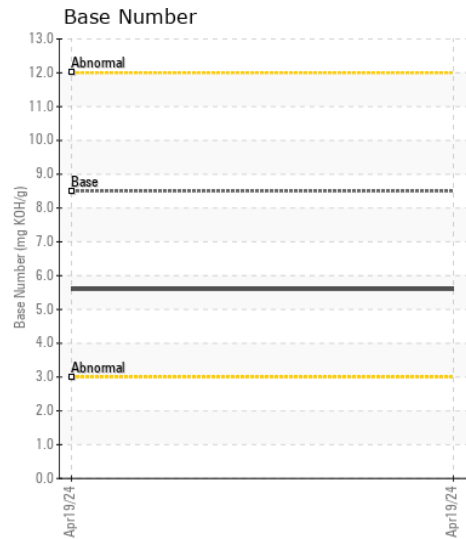
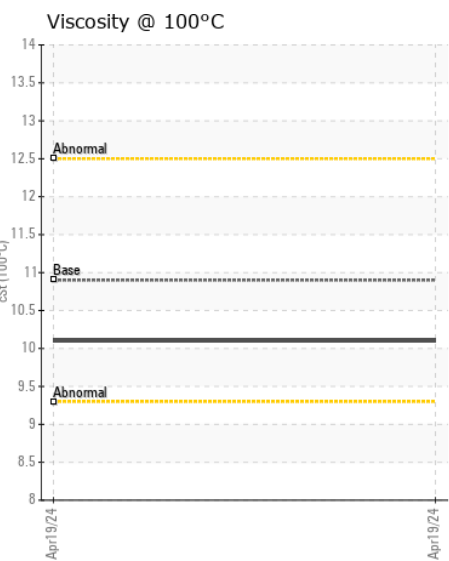
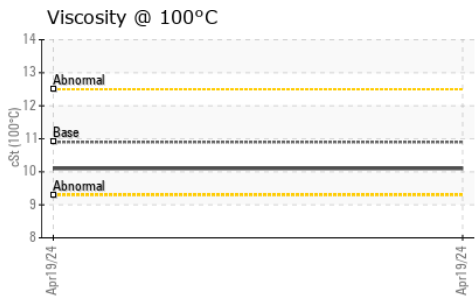
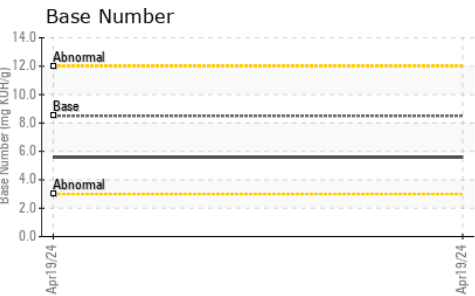
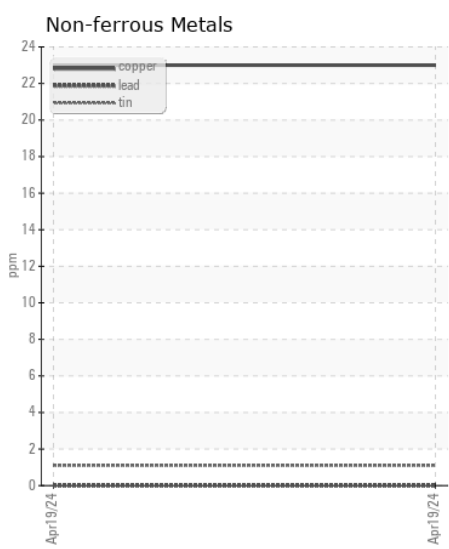
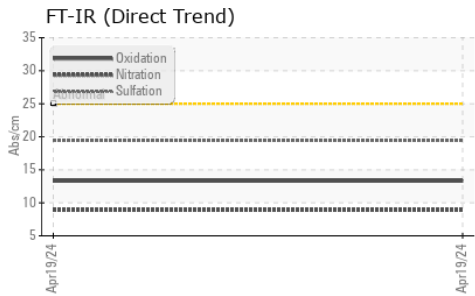
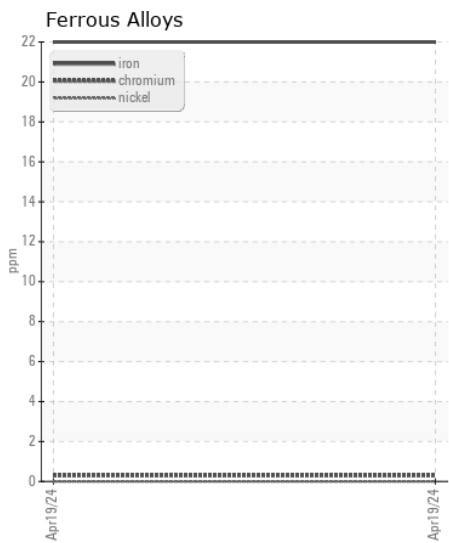
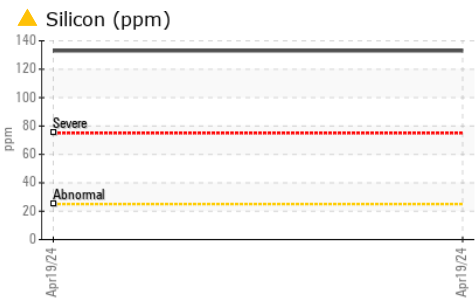
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>25	▲ 133	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	---	---
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	---	---
Boron	ppm	ASTM D5185m	250	39	---	---
Barium	ppm	ASTM D5185m	10	7	---	---
Molybdenum	ppm	ASTM D5185m	100	159	---	---
Manganese	ppm	ASTM D5185m		5	---	---
Magnesium	ppm	ASTM D5185m	450	510	---	---
Calcium	ppm	ASTM D5185m	3000	1383	---	---
Phosphorus	ppm	ASTM D5185m	1150	673	---	---
Zinc	ppm	ASTM D5185m	1350	848	---	---
Sulfur	ppm	ASTM D5185m	4250	2128	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.3	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.6	---	---
Visc @ 100°C	cSt	ASTM D445	10.9	10.1	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0924515 **Received** : 22 Apr 2024  
**Lab Number** : 06155600 **Tested** : 23 Apr 2024  
**Unique Number** : 10991023 **Diagnosed** : 24 Apr 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

**SULLIVAN EASTERN INC**  
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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)