



OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Area
Closter
 Machine Id
PETERBILT 2338
 Component
Diesel Engine
 Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (11)



DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0850730	---	---
Sample Date	Client Info		15 Sep 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			SEVERE	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	19	---	---
Chromium	ppm	ASTM D5185m >4	<1	---	---
Nickel	ppm	ASTM D5185m >2	0	---	---
Titanium	ppm	ASTM D5185m	0	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >25	2	---	---
Lead	ppm	ASTM D5185m >45	<1	---	---
Copper	ppm	ASTM D5185m >85	5	---	---
Tin	ppm	ASTM D5185m >4	<1	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	---	---
Barium	ppm	ASTM D5185m	0	---	---
Molybdenum	ppm	ASTM D5185m 66	115	---	---
Manganese	ppm	ASTM D5185m	<1	---	---
Magnesium	ppm	ASTM D5185m 1000	739	---	---
Calcium	ppm	ASTM D5185m 1050	1217	---	---
Phosphorus	ppm	ASTM D5185m 1150	1006	---	---
Zinc	ppm	ASTM D5185m 1270	1195	---	---
Sulfur	ppm	ASTM D5185m	3462	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	7	---	---
Sodium	ppm	ASTM D5185m	112	---	---
Potassium	ppm	ASTM D5185m >20	534	---	---
Glycol	%	*ASTM D2982	0.10	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.6	---	---
Nitration	Abs/cm	*ASTM D7624 >20	8.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.3	---	---

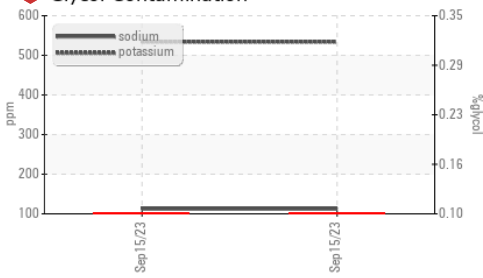
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.1	8.4	---	---



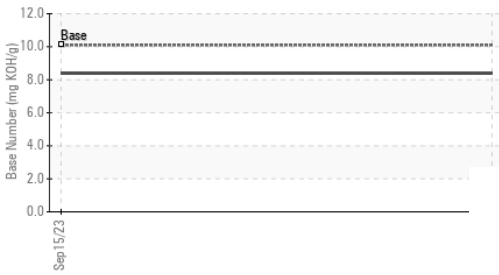
OIL ANALYSIS REPORT

Glycol Contamination



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	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

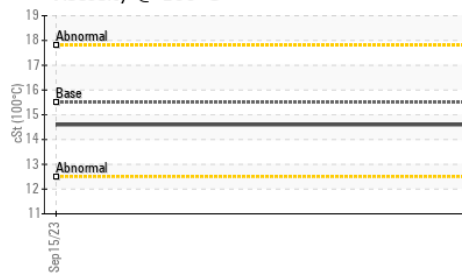
Base Number



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	14.6	---

GRAPHS

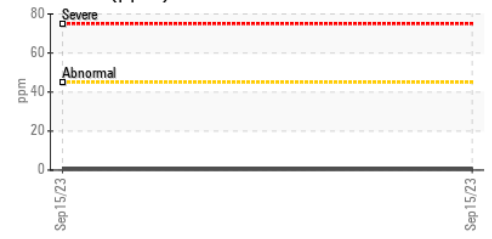
Viscosity @ 100°C



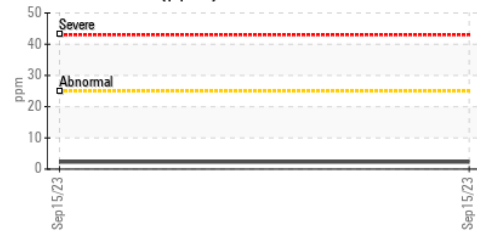
Iron (ppm)



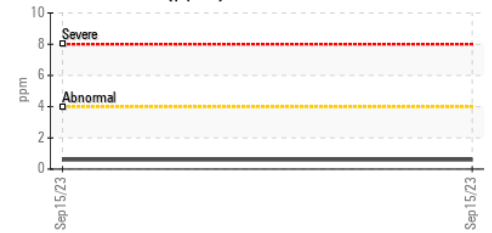
Lead (ppm)



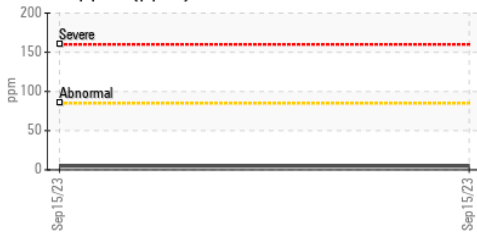
Aluminum (ppm)



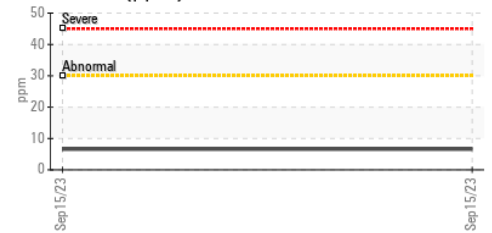
Chromium (ppm)



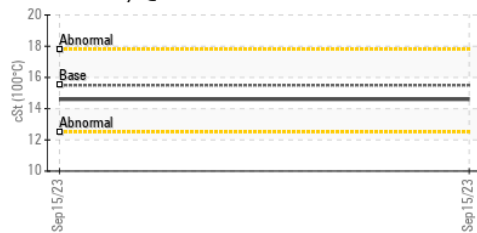
Copper (ppm)



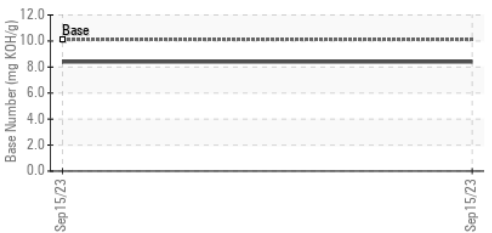
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0850730 **Received** : 29 Sep 2023
Lab Number : 05964399 **Diagnosed** : 03 Oct 2023
Unique Number : 10670950 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: Glycol, TBN)

INTERSTATE WASTE-CLOSTER
 77 RAILROAD AVENUE
 CLOSTER, NJ
 US 07624
 Contact: Tony Gagliano
 tgagliano@interstatewaste.com

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)

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F: