



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**20618**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- QTS)**

### RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0916515</b>	WC0878605	WC0854011
Sample Date		Client Info		<b>24 Jun 2024</b>	02 Jan 2024	23 Sep 2023
Machine Age	mls	Client Info		<b>231720</b>	205524	182250
Oil Age	mls	Client Info		<b>26196</b>	11314	7428
Filter Age	mls	Client Info		<b>26196</b>	11314	7428
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	3	5
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>8</b>	3	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

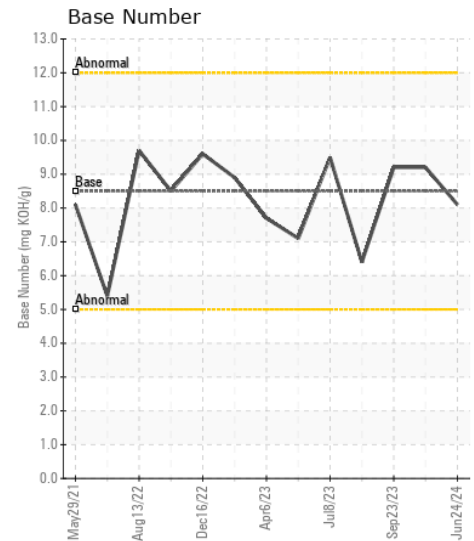
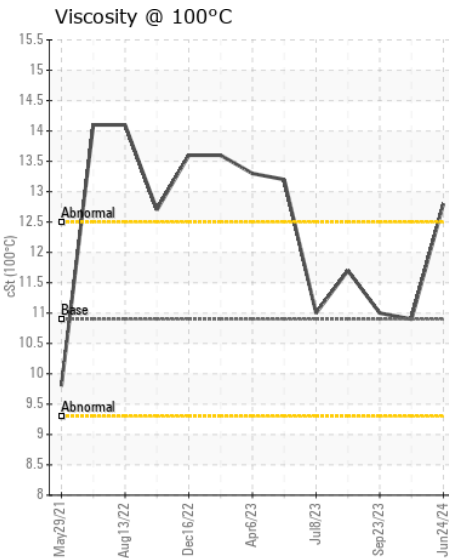
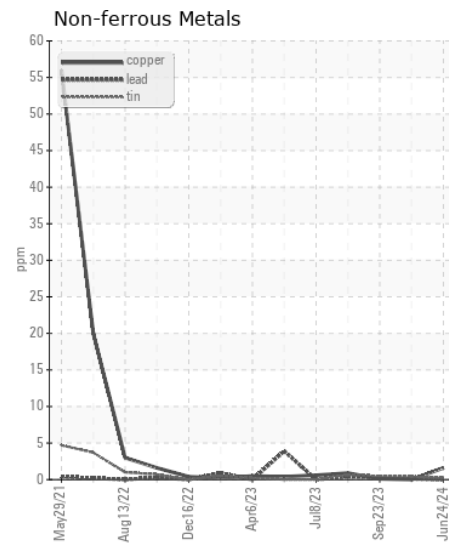
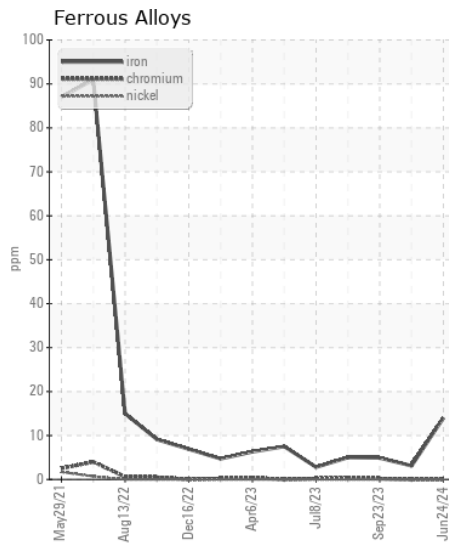
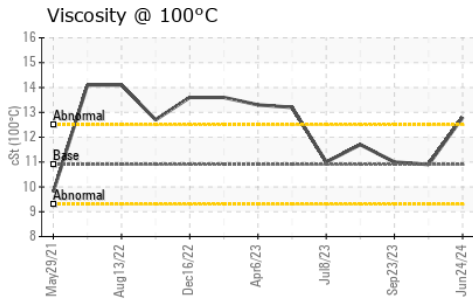
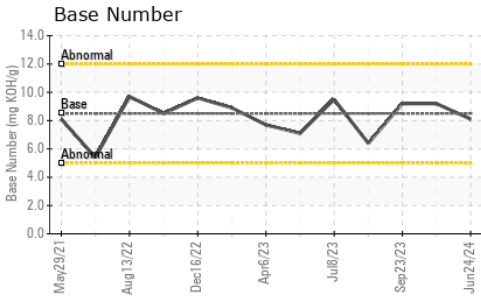
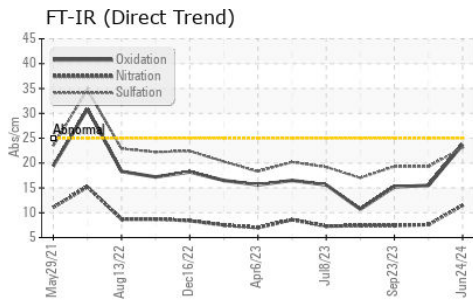
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	3	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.5</b>	7.6	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.1</b>	19.3	19.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>4</b>	0	<1
Boron	ppm	ASTM D5185m	250	<b>21</b>	2	0
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>67</b>	62	56
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>633</b>	999	993
Calcium	ppm	ASTM D5185m	3000	<b>1632</b>	1081	1268
Phosphorus	ppm	ASTM D5185m	1150	<b>858</b>	1180	1090
Zinc	ppm	ASTM D5185m	1350	<b>1006</b>	1343	1386
Sulfur	ppm	ASTM D5185m	4250	<b>3129</b>	3329	3622
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.7</b>	15.5	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.1</b>	9.2	9.2
Visc @ 100°C	cSt	ASTM D445	10.9	<b>12.8</b>	10.9	11.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0916515 **Received** : 15 Jul 2024  
**Lab Number** : 06235334 **Tested** : 15 Jul 2024  
**Unique Number** : 11124168 **Diagnosed** : 15 Jul 2024 - Don Baldrige  
**Test Package** : FLEET

**CARCO TRANSPORTATION**  
 3403 EAST ROOSEVELT ROAD  
 LITTLE ROCK, AR  
 US 72206  
 Contact: DENNIS CATES  
 denniscales@carcotrans.com  
 T: (800)967-0777  
 F:

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)