



# OIL ANALYSIS REPORT

WEAR	<b>ATTENTION</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>



Machine Id  
**CATERPILLAR 815-F COMPACTOR 34100 (S/N 1GN00563)**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON 15W40 (--- QTS)**

## RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0950542</b>	WC0786208	WC0732026
Sample Date		Client Info		<b>10 Jul 2024</b>	19 Jun 2023	30 Aug 2022
Machine Age	hrs	Client Info		<b>1124</b>	10896	10333
Oil Age	hrs	Client Info		<b>1000</b>	750	259
Filter Age	hrs	Client Info		<b>1000</b>	750	259
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>76</b>	27	31
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	10	3
Lead	ppm	ASTM D5185m	>40	<b>27</b>	8	3
Copper	ppm	ASTM D5185m	>330	<b>189</b>	23	27
Tin	ppm	ASTM D5185m	>15	<b>2</b>	0	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

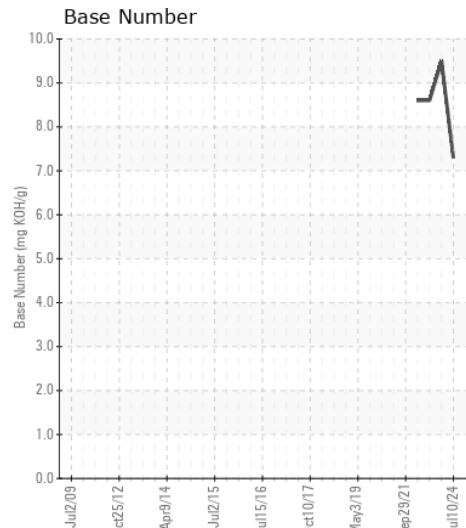
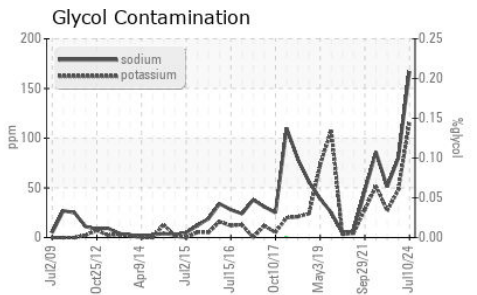
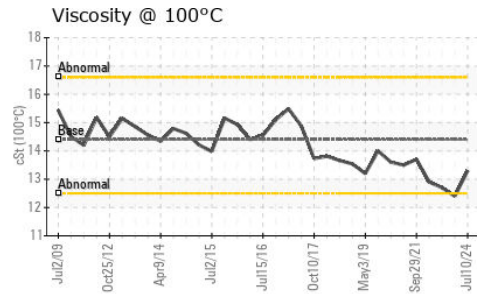
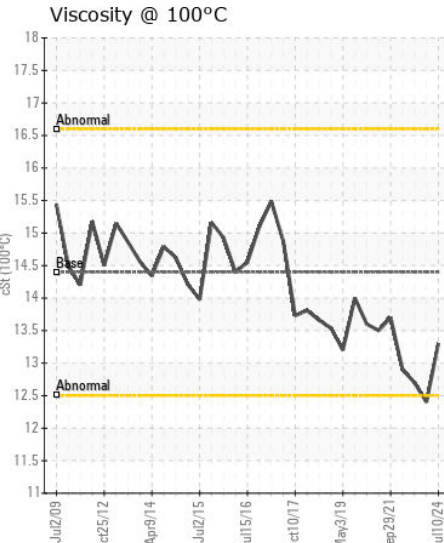
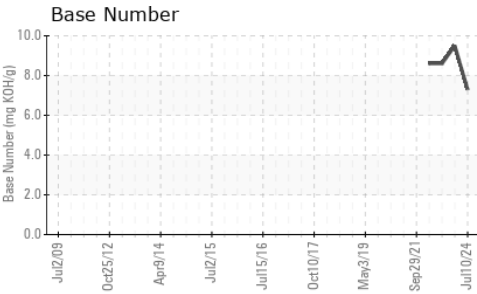
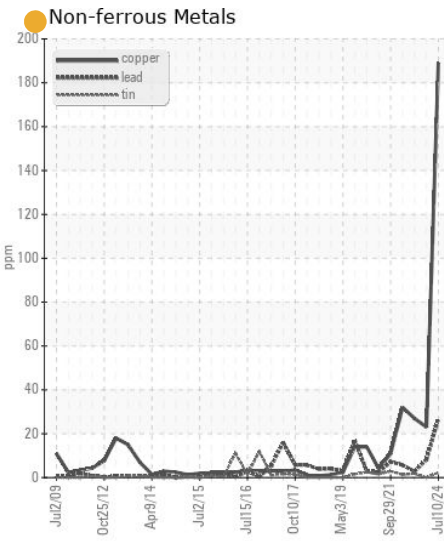
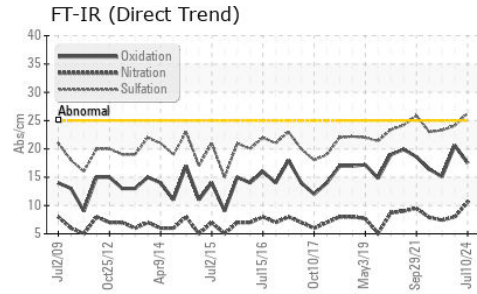
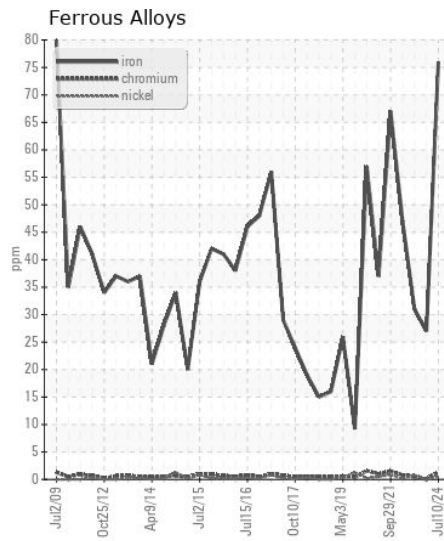
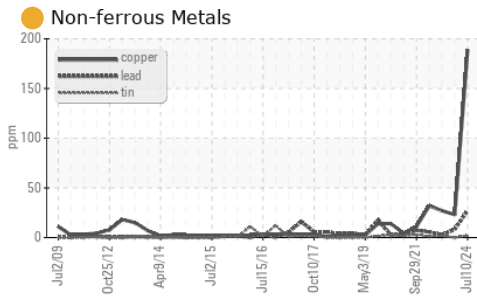
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>116</b>	48	27
Fuel		WC Method	>5	<b>&lt;1.0</b>	3.4	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>2.4</b>	0.8	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	8.0	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>26.3</b>	24.1	23.3
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 BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>50	<b>167</b>	80	51
Boron	ppm	ASTM D5185m		<b>131</b>	87	309
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>94</b>	64	87
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>416</b>	494	363
Calcium	ppm	ASTM D5185m		<b>1527</b>	1799	1342
Phosphorus	ppm	ASTM D5185m		<b>1085</b>	988	945
Zinc	ppm	ASTM D5185m		<b>1299</b>	1244	1119
Sulfur	ppm	ASTM D5185m		<b>2850</b>	3514	3031
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.5</b>	20.6	15.1
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.3</b>	9.5	8.6
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	12.4	12.7



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0950542 **Received** : 11 Jul 2024  
**Lab Number** : 06233036 **Tested** : 15 Jul 2024  
**Unique Number** : 11116529 **Diagnosed** : 15 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )  
 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)

**SULLIVAN EASTERN INC**  
 2860 C SLATER RD  
 MORRISVILLE, NC  
 US 27560  
 Contact: SCOTT SULLIVAN  
 ssullivan@sullivaneastern.com  
 T: (919)484-8993  
 F: (919)484-2136