



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR CS54B SDR-6 (S/N VL4H00167)**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (4 GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CL0005609</b>	CL0004224	CL0003511
Sample Date		Client Info		<b>29 Jun 2024</b>	18 Apr 2023	27 Aug 2022
Machine Age	hrs	Client Info		<b>3170</b>	2960	2725
Oil Age	hrs	Client Info		<b>210</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
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>40</b>	18	24
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>11</b>	7	8
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
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**

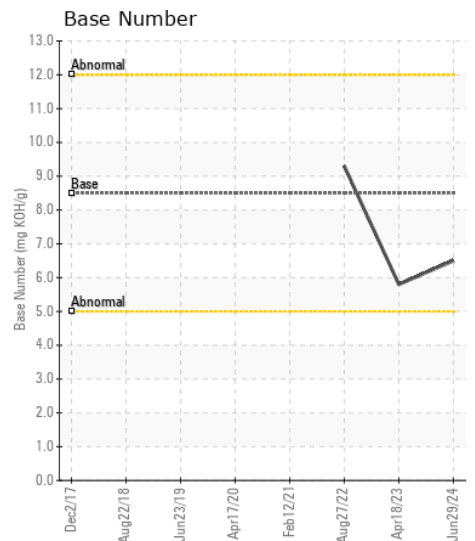
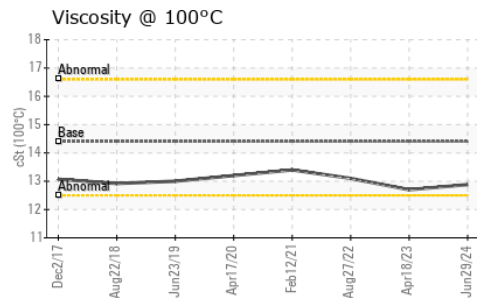
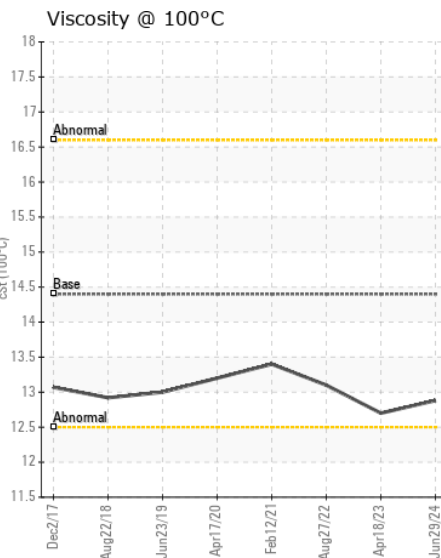
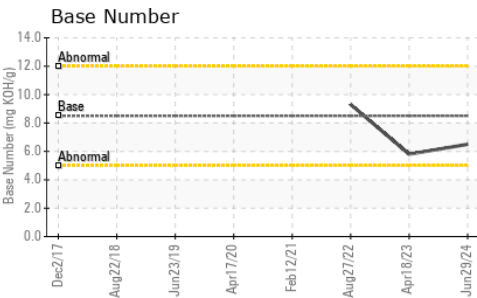
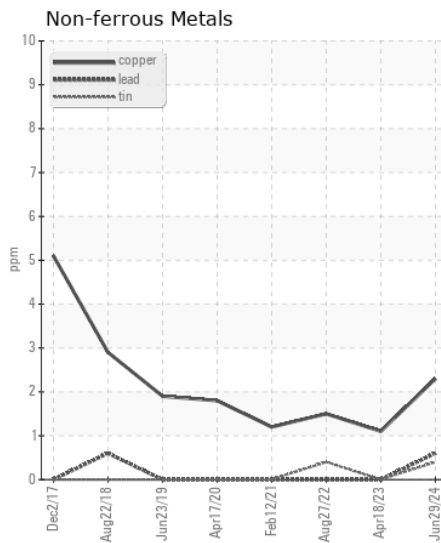
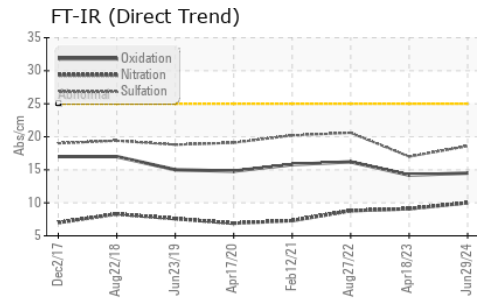
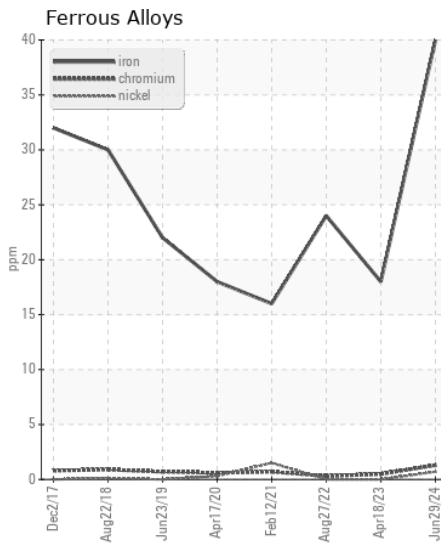
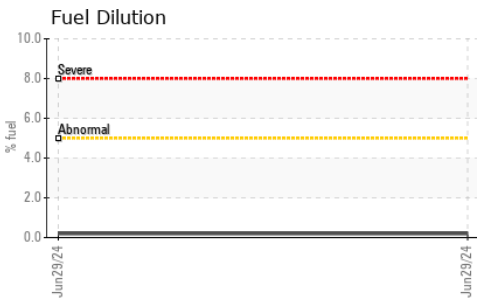
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	0
Fuel	%	ASTM D3524	>5	<b>0.2</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>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	9.1	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	17.0	20.6
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>3</b>	3	2
Boron	ppm	ASTM D5185m	250	<b>54</b>	60	94
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m	100	<b>96</b>	86	69
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>27</b>	73	261
Calcium	ppm	ASTM D5185m	3000	<b>2374</b>	2194	1900
Phosphorus	ppm	ASTM D5185m	1150	<b>1093</b>	1091	1047
Zinc	ppm	ASTM D5185m	1350	<b>1335</b>	1260	1265
Sulfur	ppm	ASTM D5185m	4250	<b>3966</b>	4689	3657
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	14.2	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.5</b>	5.8	9.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.88</b>	12.7	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : CL0005609 **Received** : 08 Jul 2024  
**Lab Number** : 06229723 **Tested** : 11 Jul 2024  
**Unique Number** : 11113216 **Diagnosed** : 11 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**PEDULLA**  
 146 MCLELLAND  
 MOORESVILLE, NC  
 US 28115  
 Contact: LARRY

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)

T:  
F: