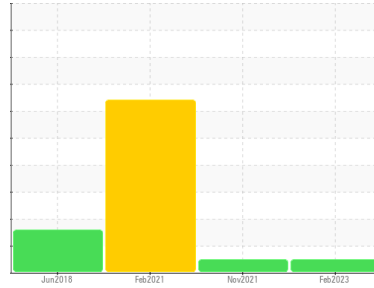


# OIL ANALYSIS REPORT



Machine Id  
**CATERPILLAR D9 DOZER 6022 (S/N ABK00919)**  
 Component  
**Rear Left Final Drive**  
 Fluid  
**TULCO LUBSOIL TO-4 50 (--- GAL)**

Sample Rating Trend



NORMAL

✓

DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is no indication of any contamination in the oil.

**Fluid Condition**  
 The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>TO10001749</b>	TO10000792	TO1007563
Sample Date	Client Info		<b>28 Feb 2023</b>	19 Nov 2021	01 Feb 2021
Machine Age	hrs	Client Info	<b>16369</b>	15868	15345
Oil Age	hrs	Client Info	<b>1002</b>	501	1015
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>500	<b>35</b>	40	96	
Iron	ppm	ASTM D5185m	>500	<b>101</b>	80	▲ 512
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	<1	5
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	0	3
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	3
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>11</b>	10	▲ 47
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>3</b>	2	8
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>3</b>	3	24
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>1</b>	1	6
Magnesium	ppm	ASTM D5185m		<b>19</b>	24	48
Calcium	ppm	ASTM D5185m		<b>4107</b>	4609	1444
Phosphorus	ppm	ASTM D5185m		<b>751</b>	816	564
Zinc	ppm	ASTM D5185m		<b>923</b>	979	308
Sulfur	ppm	ASTM D5185m		<b>5441</b>	5295	9400

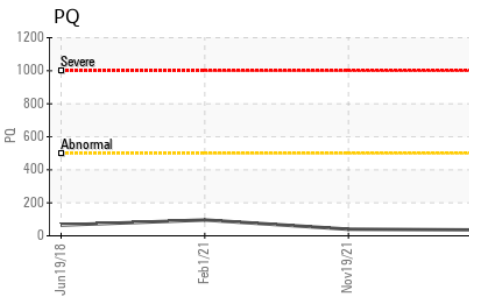
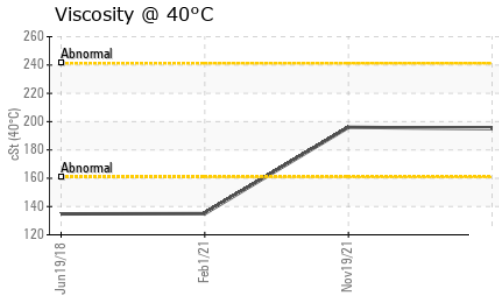
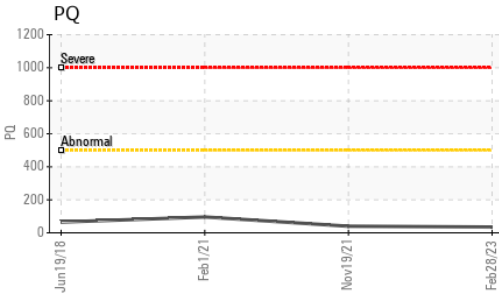
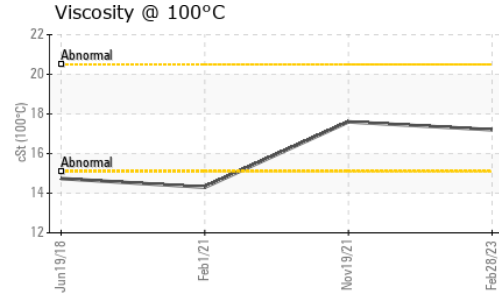
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>75	<b>56</b>	46	■ 236
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	1	15

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.83</b>	0.829	0.188

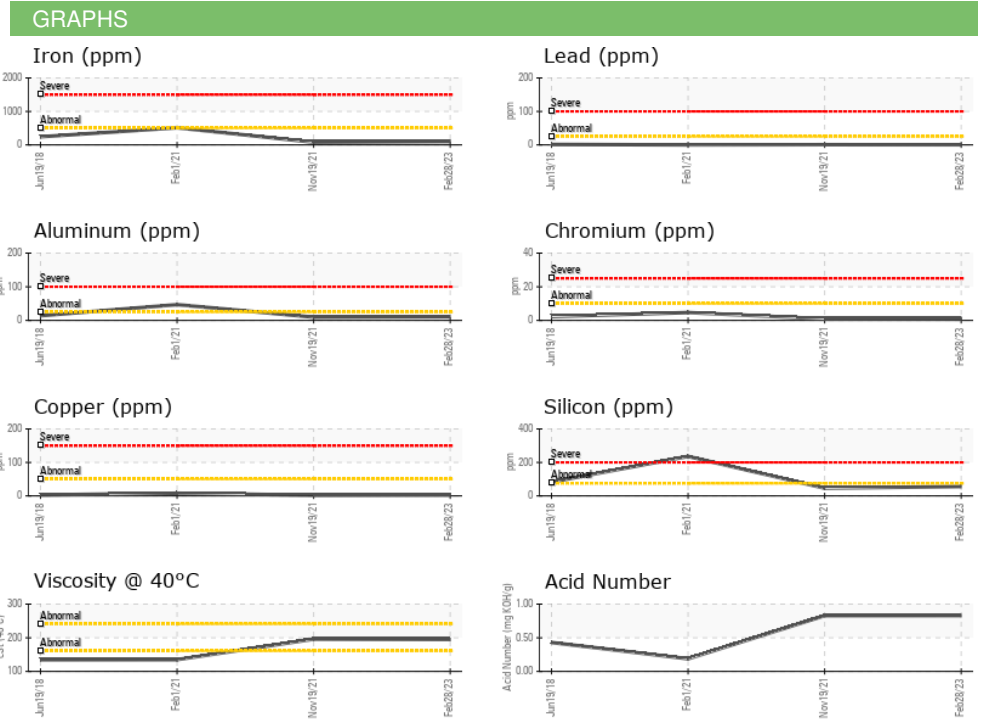
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	<b>195</b>	196	135
Visc @ 100°C	cSt	ASTM D445	<b>17.2</b>	17.6	14.3
Viscosity Index (VI)	Scale	ASTM D2270	<b>93</b>	96	104

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10001749 **Received** : 09 Mar 2023  
**Lab Number** : **05787463** **Diagnosed** : 10 Mar 2023  
**Unique Number** : 10372134 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**ANCHOR STONE TULSA ROCK**  
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE  
 TULSA, OK  
 US 74137  
 Contact: MIKE SNYDER  
 msnyder@anchorstoneco.com  
 T: (417)850-9635  
 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)