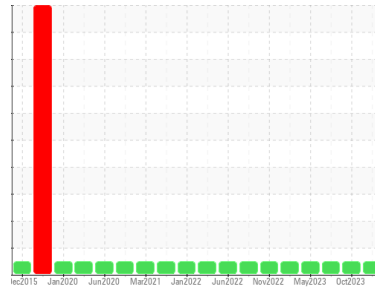


# OIL ANALYSIS REPORT



Area  
**DE Samples - CAT LAB**  
 Machine Id  
**CATERPILLAR 980H LOADER 6583 (S/N JMS05055)**  
 Component  
**Rear Right 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>TO10003056</b>	TO10002733	TO10002312
Sample Date	Client Info		<b>08 Jan 2024</b>	02 Oct 2023	14 Jul 2023
Machine Age	hrs	Client Info	<b>34718</b>	34179	33615
Oil Age	hrs	Client Info	<b>3115</b>	2576	2012
Oil Changed		Client Info	<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

**CONTAMINATION**    method    limit/base    current    history1    history2

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

PQ		ASTM D8184	>500	<b>44</b>	38	52
Iron	ppm	ASTM D5185m	>800	<b>56</b>	59	72
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>75	<b>2</b>	1	3
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	1	<1
Tin	ppm	ASTM D5185m	>8	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

**ADDITIVES**    method    limit/base    current    history1    history2

Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	4	5
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>15</b>	13	13
Calcium	ppm	ASTM D5185m		<b>3240</b>	3100	3655
Phosphorus	ppm	ASTM D5185m		<b>962</b>	959	1006
Zinc	ppm	ASTM D5185m		<b>1196</b>	1183	1293
Sulfur	ppm	ASTM D5185m		<b>4764</b>	4858	6382

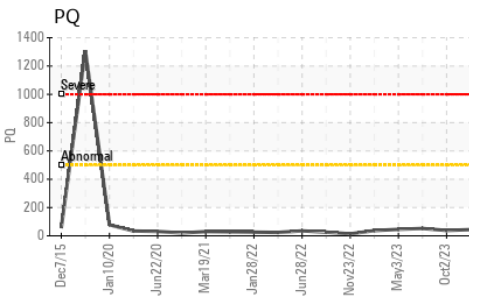
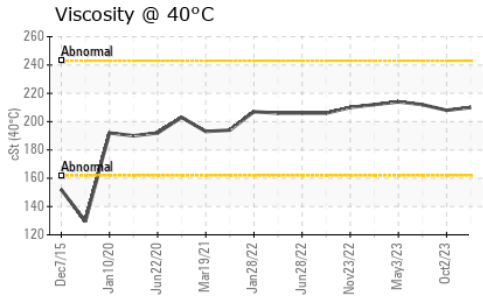
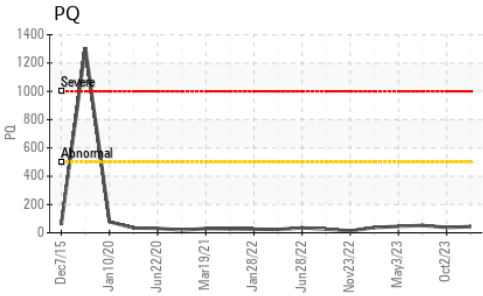
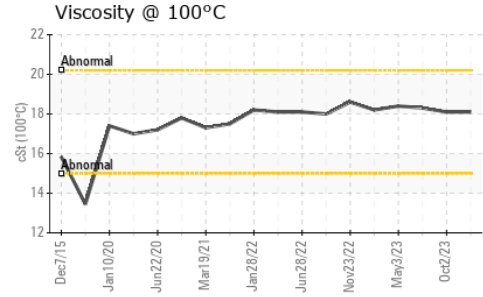
**CONTAMINANTS**    method    limit/base    current    history1    history2

Silicon	ppm	ASTM D5185m	>400	<b>17</b>	18	20
Sodium	ppm	ASTM D5185m		<b>1</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0

**FLUID DEGRADATION**    method    limit/base    current    history1    history2

Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.23</b>	1.10	1.23
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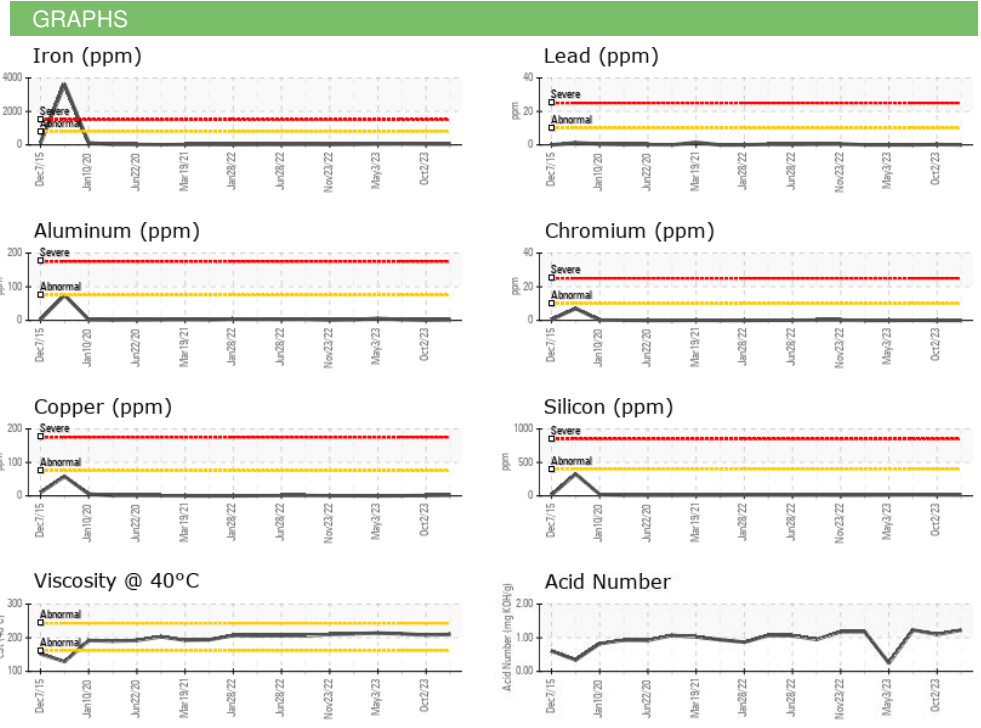
# OIL ANALYSIS REPORT



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	210	208	212
Visc @ 100°C	cSt	ASTM D445	18.1	18.1	18.3
Viscosity Index (VI)	Scale	ASTM D2270	94	95	95

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.** : TO10003056 **Received** : 16 Jan 2024  
**Lab Number** : 06061344 **Tested** : 18 Jan 2024  
**Unique Number** : 10832726 **Diagnosed** : 18 Jan 2024 - 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

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)