



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR 980H LOADER 6583 (S/N JMS05055)**  
Component  
**Rear Differential**  
Fluid  
**TULCO LUBSOIL TO-4 50 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO10003058</b>	TO10002732	TO10002307
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
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>None</b>	None	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>500	<b>57</b>	59	72
Chromium	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>13	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>103	<b>2</b>	1	<1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
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**

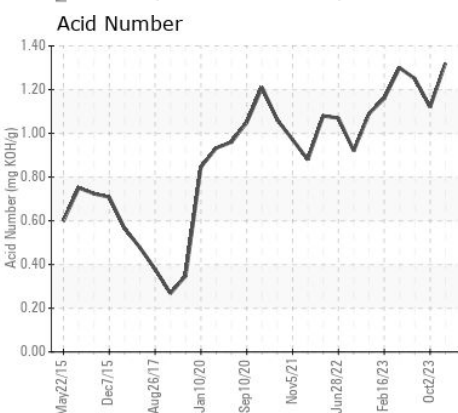
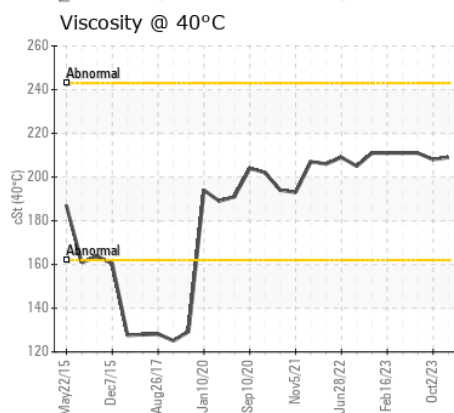
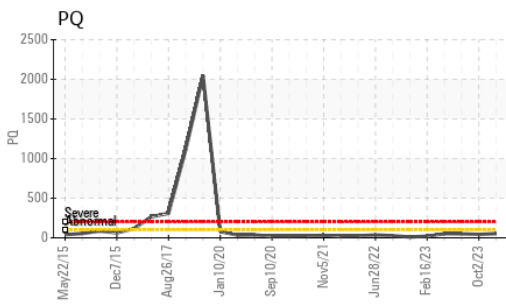
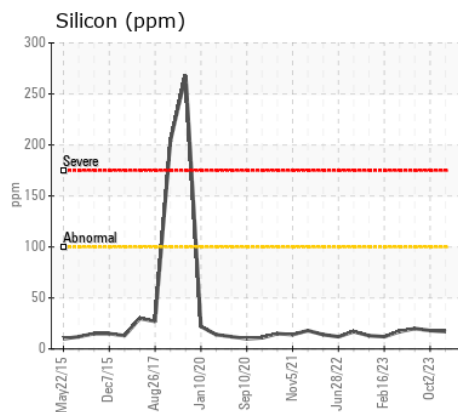
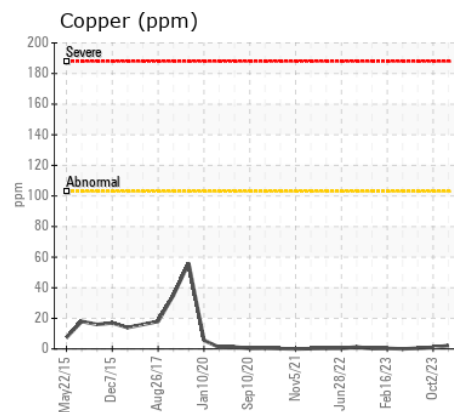
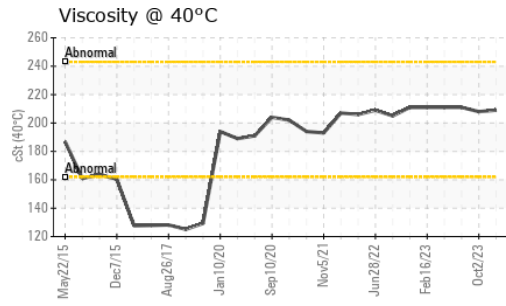
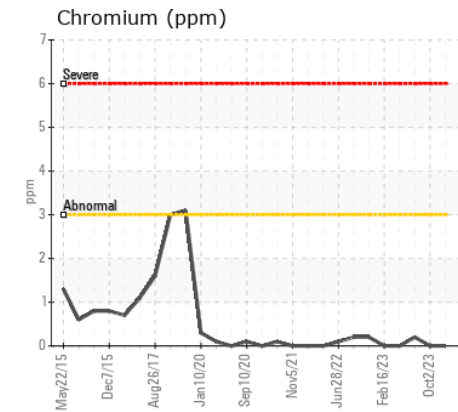
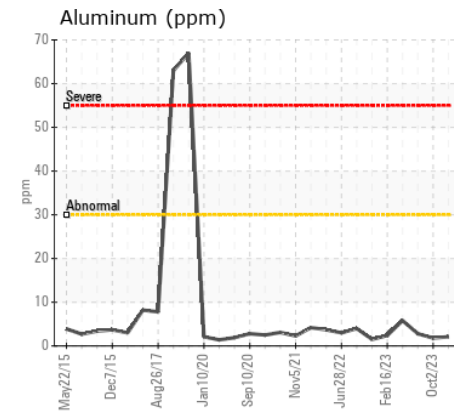
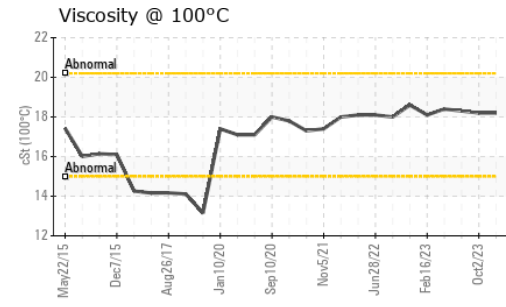
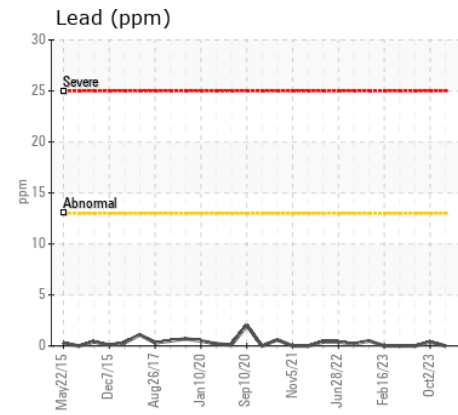
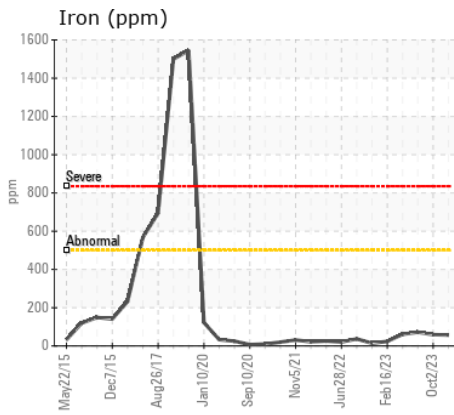
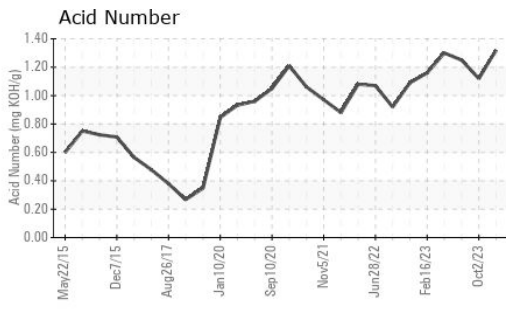
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	<b>17</b>	18	20
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
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	>.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>1</b>	5	4
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	6
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>14</b>	13	13
Calcium	ppm	ASTM D5185m		<b>3233</b>	3091	3727
Phosphorus	ppm	ASTM D5185m		<b>962</b>	960	1026
Zinc	ppm	ASTM D5185m		<b>1195</b>	1185	1323
Sulfur	ppm	ASTM D5185m		<b>4768</b>	4825	6537
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.32</b>	1.12	1.25
Visc @ 40°C	cSt	ASTM D445		<b>209</b>	208	211
Visc @ 100°C	cSt	ASTM D445		<b>18.2</b>	18.2	18.3
Viscosity Index (VI)	Scale	ASTM D2270		<b>95</b>	96	95



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003058 **Received** : 16 Jan 2024  
**Lab Number** : 06061345 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10832727 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**ANCHOR STONE TULSA ROCK**  
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Certificate L2367  
 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)