



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 420 FST BACKHOE 6010 (S/N SKR04232)
 Component
Front 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		TO10002855	TO10002405	TO10002178
Sample Date		Client Info		14 Nov 2023	25 Jul 2023	18 Apr 2023
Machine Age	hrs	Client Info		12883	12310	11802
Oil Age	hrs	Client Info		1594	1271	763
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		None	None	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
		ASTM D8184		39	46	30
Iron	ppm	ASTM D5185m	>500	46	83	51
Chromium	ppm	ASTM D5185m	>3	<1	<1	0
Nickel	ppm	ASTM D5185m	>3	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	9	20	9
Lead	ppm	ASTM D5185m	>13	<1	<1	0
Copper	ppm	ASTM D5185m	>103	<1	2	0
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

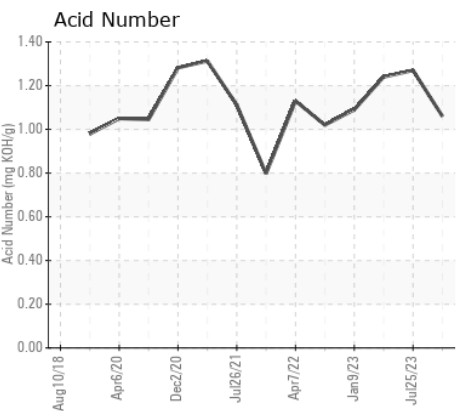
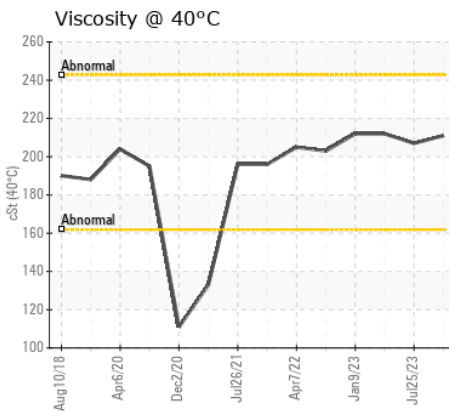
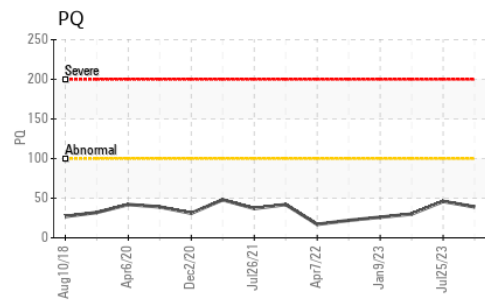
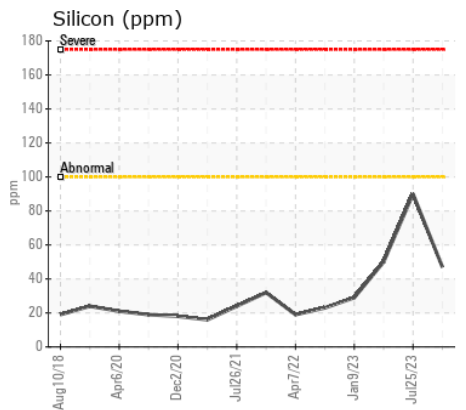
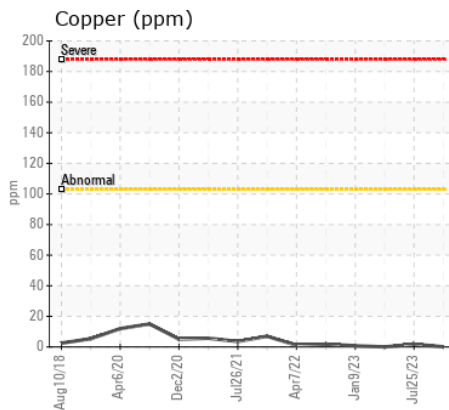
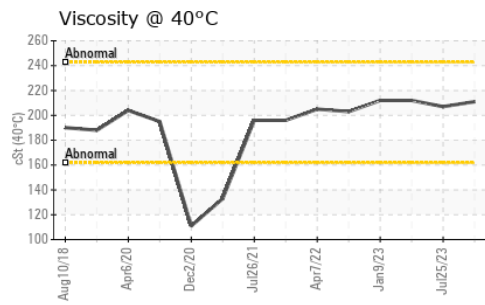
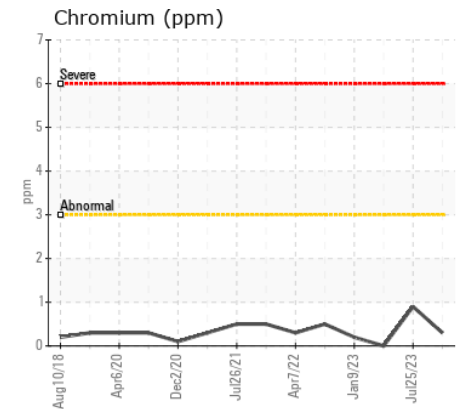
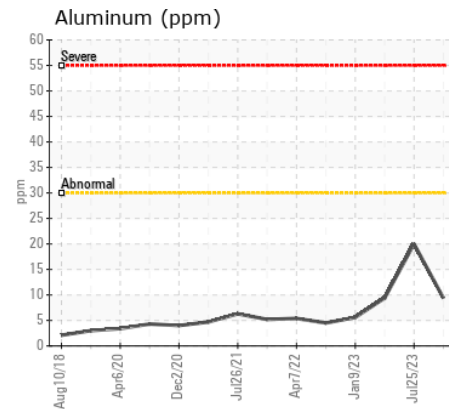
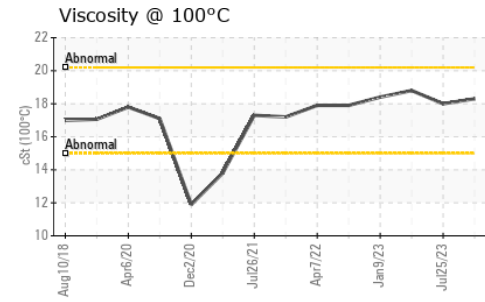
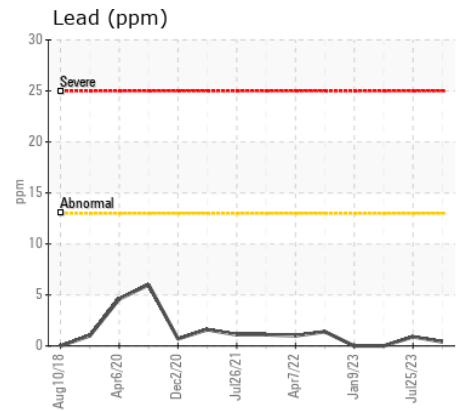
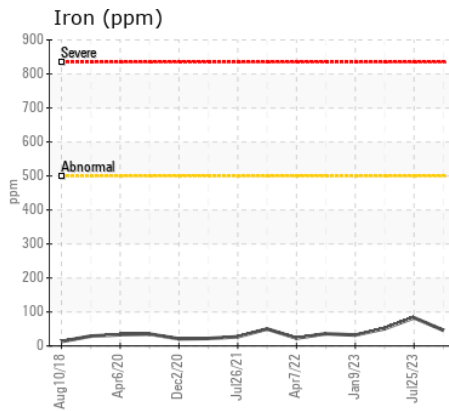
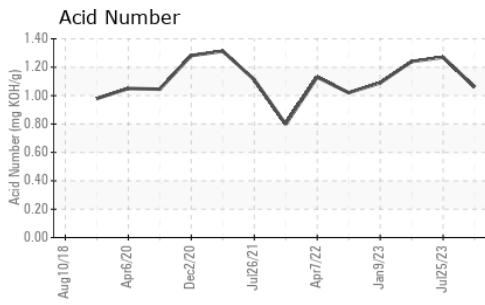
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	47	90	50
Potassium	ppm	ASTM D5185m	>20	2	7	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	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		4	6	4
Boron	ppm	ASTM D5185m		0	2	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m		20	27	26
Calcium	ppm	ASTM D5185m		3532	3961	3473
Phosphorus	ppm	ASTM D5185m		974	1021	909
Zinc	ppm	ASTM D5185m		1181	1287	1181
Sulfur	ppm	ASTM D5185m		4857	6370	5282
Acid Number (AN)	mg KOH/g	ASTM D8045		1.06	1.27	1.24
Visc @ 40°C	cSt	ASTM D445		211	207	212
Visc @ 100°C	cSt	ASTM D445		18.3	18.0	18.8
Viscosity Index (VI)	Scale	ASTM D2270		95	94	98



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO10002855

Lab Number : 06013420

Unique Number : 10752564

Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

Received : 20 Nov 2023

Tested : 21 Nov 2023

Diagnosed : 21 Nov 2023 - Wes Davis

ANCHOR STONE TULSA ROCK

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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)