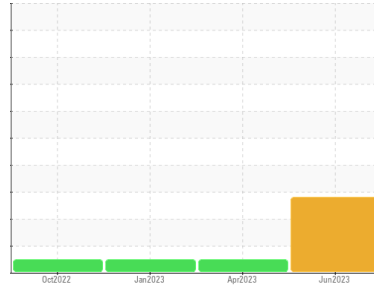


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR 980M 6141 (S/N KRS00885)
 Component
Rear Differential
 Fluid
TULCO LUBSOIL TO-4 50 (17 GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear
 Gear wear is indicated.

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		TO10002369	TO10002139	TO10001602
Sample Date	Client Info		13 Jun 2023	03 Apr 2023	25 Jan 2023
Machine Age	hrs	Client Info	11371	10847	10348
Oil Age	hrs	Client Info	1569	1045	546
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		▲ 480	329	63
Iron	ppm	ASTM D5185m >500	▲ 731	339	88
Chromium	ppm	ASTM D5185m >3	1	<1	<1
Nickel	ppm	ASTM D5185m >3	1	<1	<1
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >30	10	4	3
Lead	ppm	ASTM D5185m >13	0	0	1
Copper	ppm	ASTM D5185m >103	69	34	19
Tin	ppm	ASTM D5185m >5	0	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	3	2	1
Barium	ppm	ASTM D5185m	1	0	0
Molybdenum	ppm	ASTM D5185m	3	2	2
Manganese	ppm	ASTM D5185m	7	3	1
Magnesium	ppm	ASTM D5185m	22	18	20
Calcium	ppm	ASTM D5185m	3033	2877	3013
Phosphorus	ppm	ASTM D5185m	961	914	910
Zinc	ppm	ASTM D5185m	1166	1141	1143
Sulfur	ppm	ASTM D5185m	5064	4626	5301

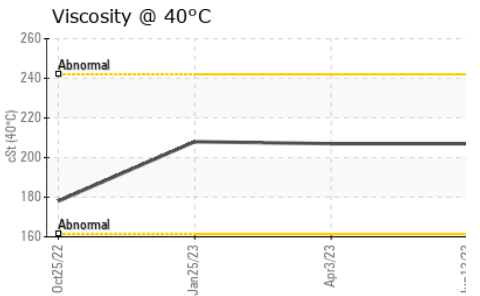
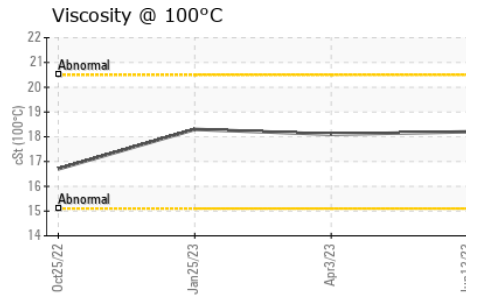
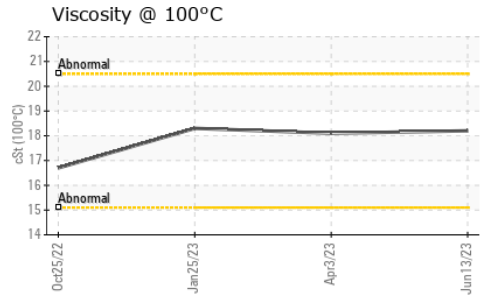
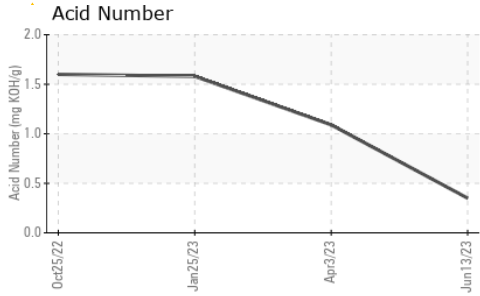
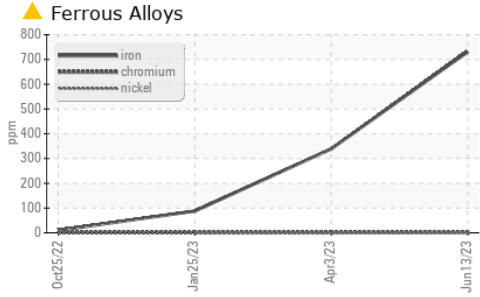
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >100	19	14	13
Sodium	ppm	ASTM D5185m	0	1	1
Potassium	ppm	ASTM D5185m >20	2	1	0

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.35	1.09	1.58

OIL ANALYSIS REPORT

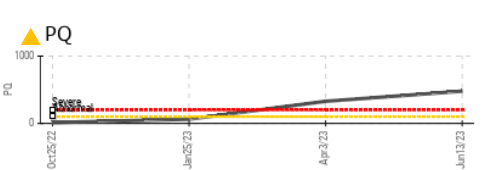
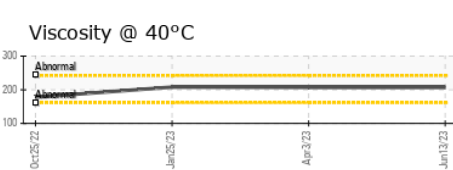
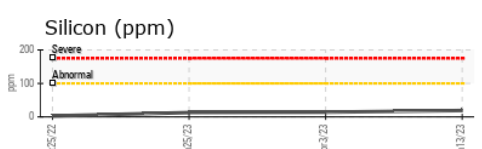
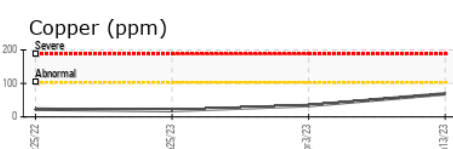
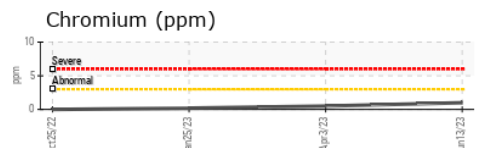
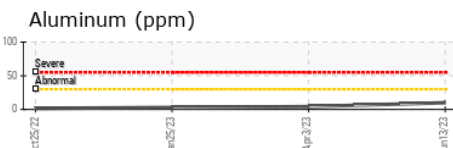
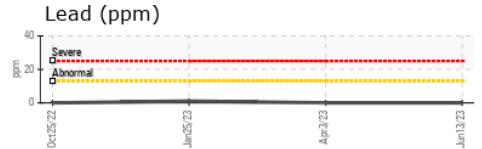
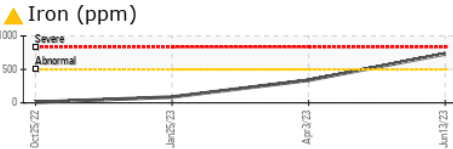


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	MODER
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	207	207	208
Visc @ 100°C	cSt	ASTM D445	18.2	18.1	18.3
Viscosity Index (VI)	Scale	ASTM D2270	96	95	96

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10002369 **Received** : 20 Jun 2023
Lab Number : 05879035 **Tested** : 22 Jun 2023
Unique Number : 10524138 **Diagnosed** : 22 Jun 2023 - Doug Bogart
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)