CONST

CHALMERS
Lubrication Service
(704) 660-LUBE(5823)

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR 322BL 3009 (S/N BKJ00620)
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- QTS)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

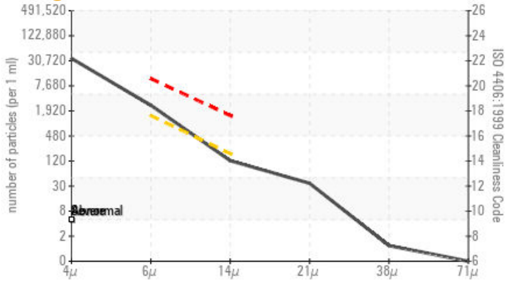
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

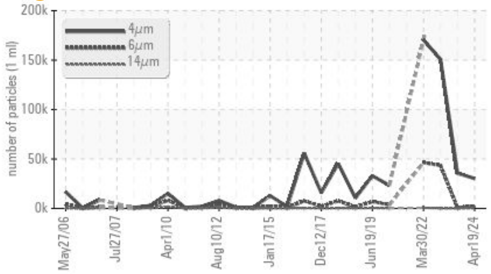
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CL0005360	CL0004914	CL0004099
Sample Date		Client Info		19 Apr 2024	17 Nov 2023	08 Mar 2023
Machine Age	hrs	Client Info		14290	13795	13350
Oil Age	hrs	Client Info		11947	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	8	6	8
Chromium	ppm	ASTM D5185m	>10	4	2	2
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	1
Lead	ppm	ASTM D5185m	>10	1	0	<1
Copper	ppm	ASTM D5185m	>75	2	<1	<1
Tin	ppm	ASTM D5185m	>10	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	3	<1	2
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		30289	35455	150678
Particles >6µm		ASTM D7647	>1300	2293	704	43418
Particles >14µm		ASTM D7647	>160	108	38	212
Particles >21µm		ASTM D7647	>40	31	20	43
Particles >38µm		ASTM D7647	>10	1	2	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/14	22/18/14	22/17/12	24/23/15
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		0	<1	0
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	<1
Molybdenum	ppm	ASTM D5185m	5	2	<1	<1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	25	4	<1	4
Calcium	ppm	ASTM D5185m	200	68	62	49
Phosphorus	ppm	ASTM D5185m	300	317	306	290
Zinc	ppm	ASTM D5185m	370	394	404	370
Sulfur	ppm	ASTM D5185m	2500	1752	1604	1853
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.42	0.42	0.34
Visc @ 40°C	cSt	ASTM D445	46	44.5	44.0	43.4

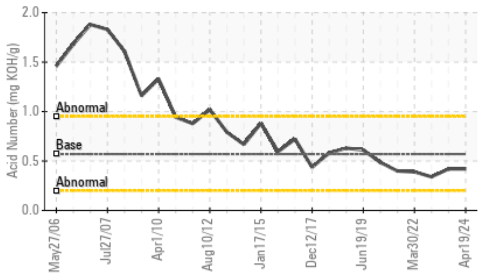
Particle Count



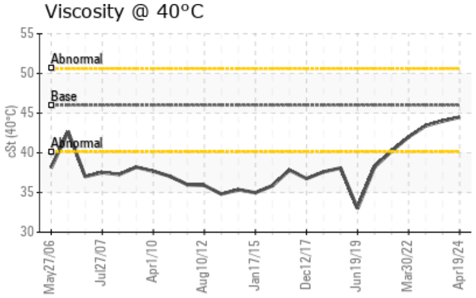
Particle Trend



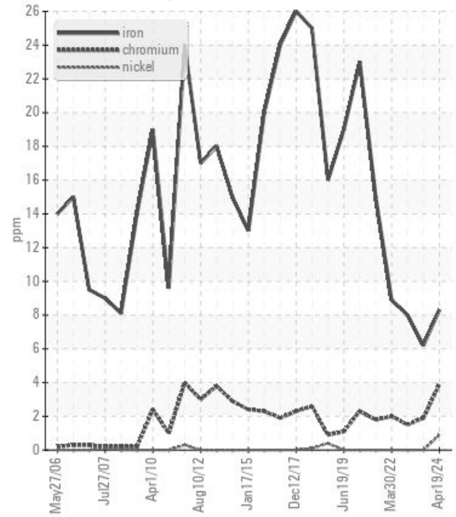
Acid Number



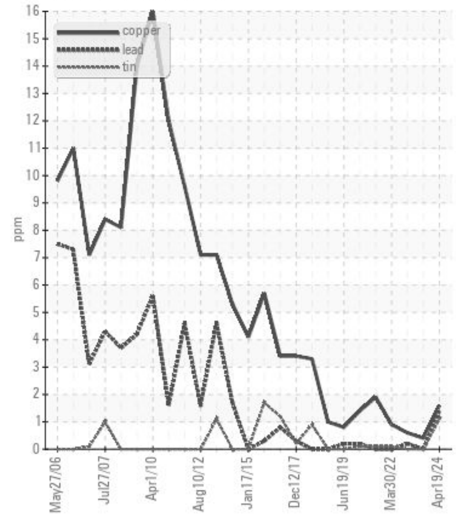
Viscosity @ 40°C



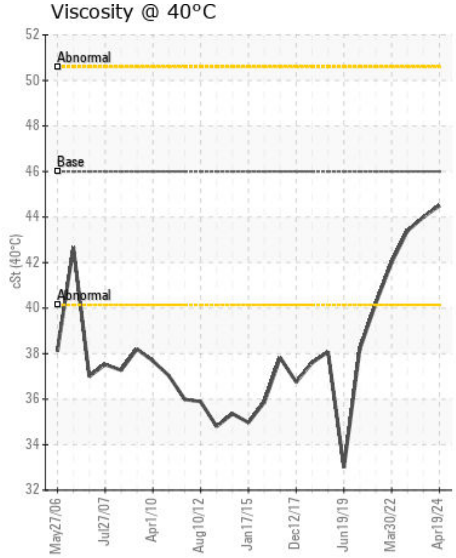
Ferrous Alloys



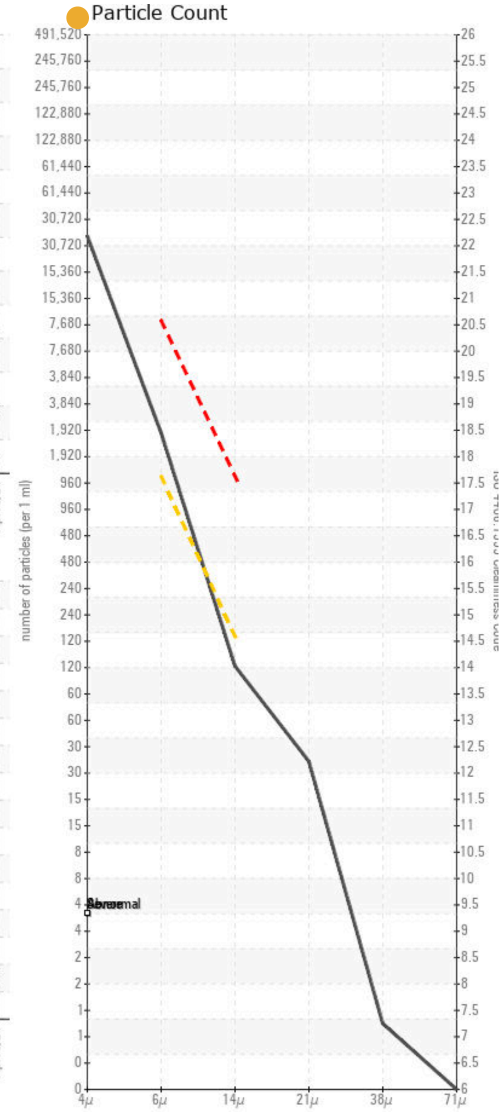
Non-ferrous Metals



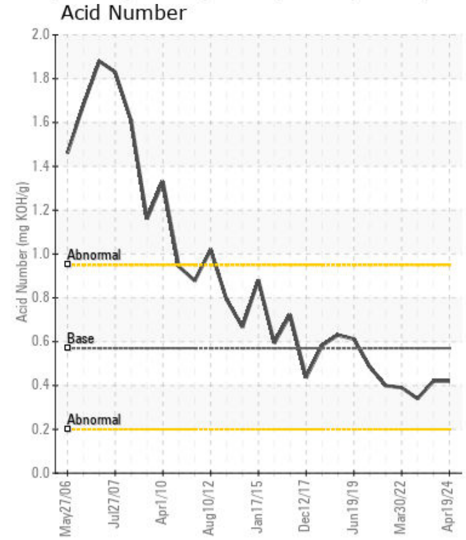
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : CL0005360 **Received** : 24 Apr 2024
Lab Number : 06159953 **Tested** : 25 Apr 2024
Unique Number : 10995376 **Diagnosed** : 25 Apr 2024 - Wes Davis
Test Package : CONST

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)

PURCELL CONSTRUCTION
3100 HIGH RIDGE RD
CHARLOTTE, NC
US 28270
Contact: BEN MILKE
ben@purcellconst.com
T:
F: