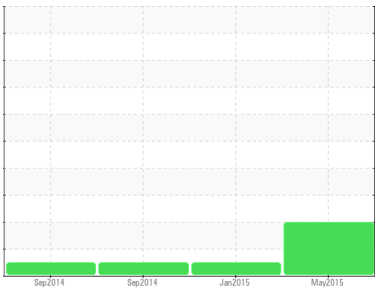
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
CATERPILLAR 3499
Component
Hydraulic System
Fluid
{not provided} (30 GAL)

DIAGNOSIS

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 high amount of particulates present 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		**PTKM2241482**	PTKM2241489	PTKM2241485
Sample Date		Client Info		**21 May 2015**	21 Jan 2015	13 Sep 2014
Machine Age	hrs	Client Info		**6061**	4995	3807
Oil Age	hrs	Client Info		**221**	4928	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**4**	3	4
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m		**0**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>10	**<1**	<1	<1
Lead	ppm	ASTM D5185m	>10	**0**	<1	<1
Copper	ppm	ASTM D5185m	>75	**11**	10	12
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

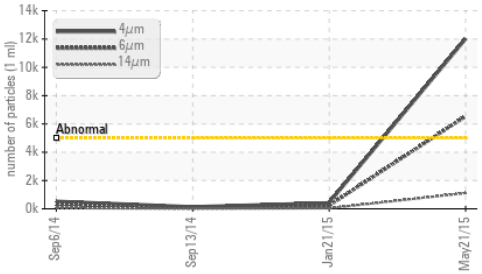
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**<1**	<1	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	<1	0
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**3**	0	6
Calcium	ppm	ASTM D5185m		**160**	173	172
Phosphorus	ppm	ASTM D5185m		**548**	628	643
Zinc	ppm	ASTM D5185m		**722**	828	818
Sulfur	ppm	ASTM D5185m		**1312**	1315	1485

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**3**	3	3
Sodium	ppm	ASTM D5185m		**<1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**<1**	3	4

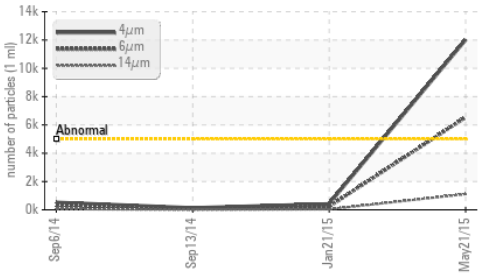
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**12005**	423	142
Particles >6µm		ASTM D7647	>1300	▲ **6539**	230	77
Particles >14µm		ASTM D7647	>160	▲ **1114**	39	13
Particles >21µm		ASTM D7647	>40	▲ **376**	13	4
Particles >38µm		ASTM D7647	>10	▲ **58**	2	0
Particles >71µm		ASTM D7647	>3	▲ **5**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/20/17**	16/15/12	14/13/11

OIL ANALYSIS REPORT

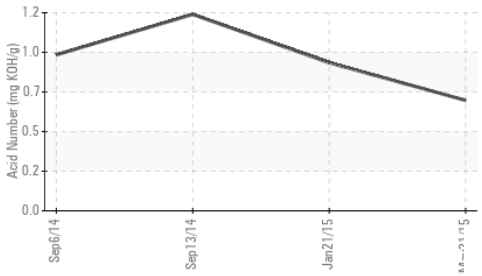
Particle Trend



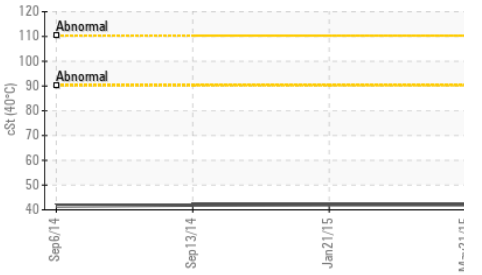
Particle Trend



Acid Number



Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.669**	0.897	1.19

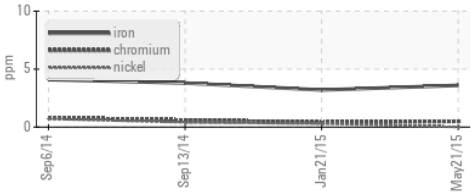
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**LIGHT**	LIGHT	VLITE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**42.02**	42.02	41.89

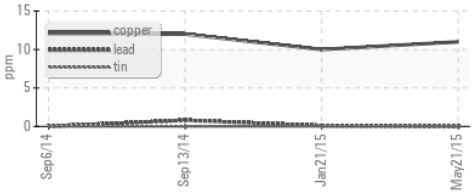
SAMPLE IMAGES				current	history1	history2
Color				*no image*	*no image*	*no image*
Bottom				*no image*	*no image*	*no image*

GRAPHS

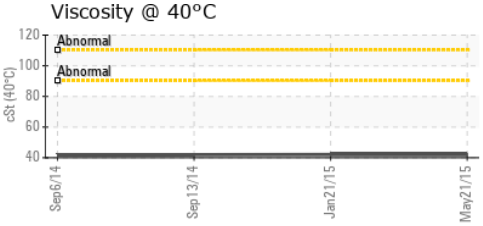
Ferrous Alloys



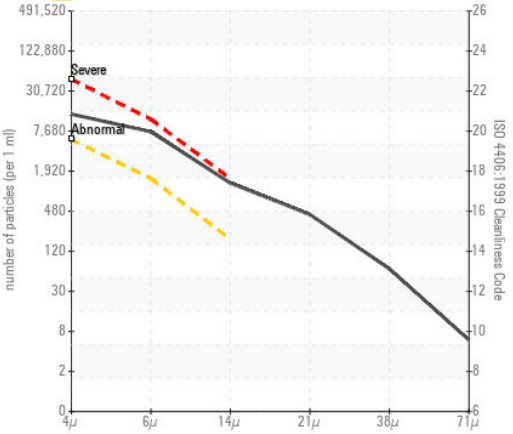
Non-ferrous Metals



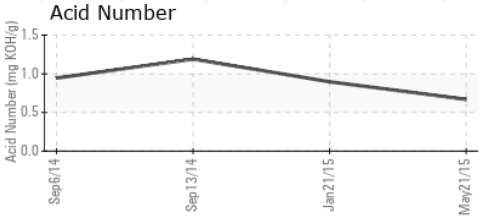
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PTKM2241482
Lab Number : 03750088
Unique Number : 7018101
Test Package : IND 2

Received : 27 May 2015
Tested : 29 May 2015
Diagnosed : 29 May 2015 - Jonathan Hester

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)

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carj04@juno.com
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Report Id: MRBCEN [WUSCAR] 03750088 (Generated: 04/26/2024 09:12:53) Rev: 1

Contact/Location: MR JONES ? - MRBCEN