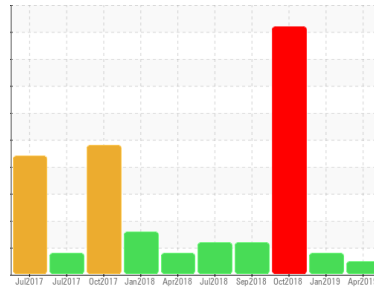


OIL ANALYSIS REPORT



Area
ALLIED - 151
Machine Id
CATERPILLAR 151-#18
Component
Right Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (280 LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. this testkit includes BN to determine the suitability of the oil for continued use.

Wear

Metal levels are typical for a new component breaking in. Component wear rates appear to be normal (unconfirmed).

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service (unconfirmed).

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			WC0309223	WC0309257	WC112866
Sample Date			20 Apr 2019	11 Jan 2019	12 Oct 2018
Machine Age	hrs		397	329	328
Oil Age	hrs		0	0	0
Oil Changed			Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	MARGINAL	SEVERE

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	ASTM D3524	>5	<1.0	▲ 3.5	▲ 5.5
Glycol	ASTM D2982		NEG	NEG	▲ 0.02

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185 >100	1	<1	1
Chromium	ppm	ASTM D5185 >20	0	0	0
Nickel	ppm	ASTM D5185 >2	0	0	<1
Titanium	ppm	ASTM D5185 >2	0	0	0
Silver	ppm	ASTM D5185 >2	0	0	0
Aluminum	ppm	ASTM D5185 >25	<1	<1	<1
Lead	ppm	ASTM D5185 >40	<1	0	1
Copper	ppm	ASTM D5185 >330	3	<1	1
Tin	ppm	ASTM D5185 >15	0	0	0
Antimony	ppm	ASTM D5185	0	0	0
Vanadium	ppm	ASTM D5185	0	0	0
Beryllium	ppm	ASTM D5185	0	0	0
Cadmium	ppm	ASTM D5185	0	0	<1

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185 0	26	27	176
Barium	ppm	ASTM D5185 0	0	0	0
Molybdenum	ppm	ASTM D5185 60	46	48	<1
Manganese	ppm	ASTM D5185 0	<1	<1	<1
Magnesium	ppm	ASTM D5185 1010	766	775	8
Calcium	ppm	ASTM D5185 1070	1104	1112	1961
Phosphorus	ppm	ASTM D5185 1150	973	969	913
Zinc	ppm	ASTM D5185 1270	1143	1143	1039
Sulfur	ppm	ASTM D5185 2060	2682	2695	2881
Lithium	ppm	ASTM D5185	0	0	0

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185 >25	3	4	3
Sodium	ppm	ASTM D5185	1	<1	2
Potassium	ppm	ASTM D5185 >20	<1	1	▲ 6

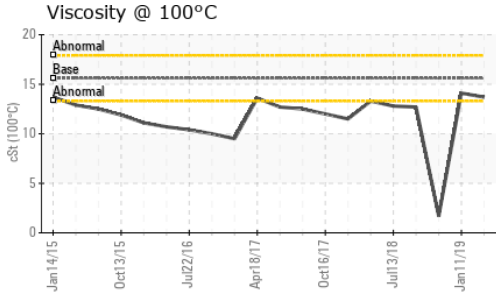
INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7686 >3	0	0	0
Nitration	Abs/cm	ASTM D7624 >20	5.4	4.7	9.0
Sulfation	Abs/.1mm	ASTM D7415 >30	19.2	18.6	15.7

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414 >25	14.1	13.9	20.8

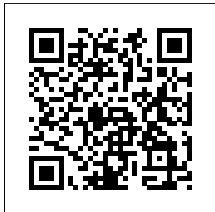
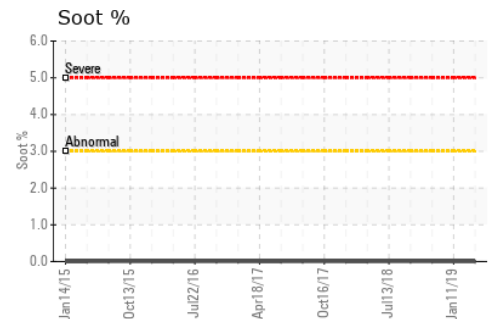
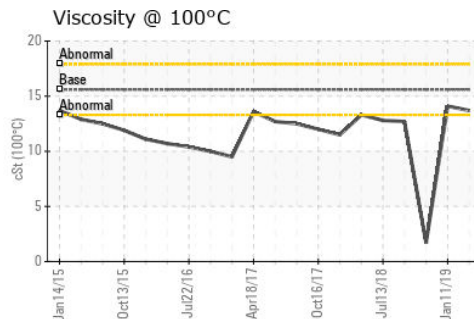
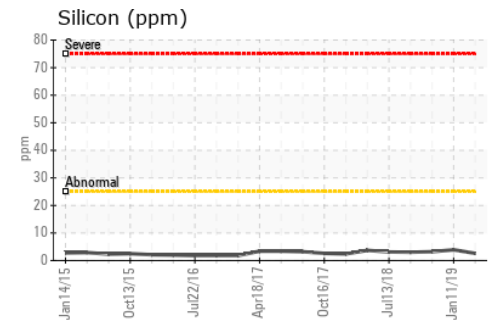
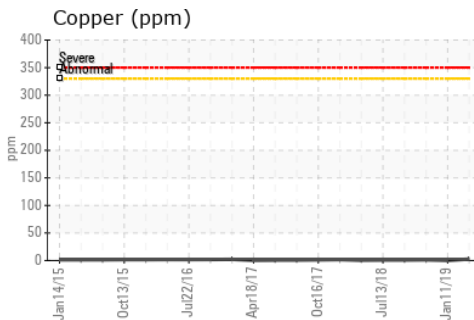
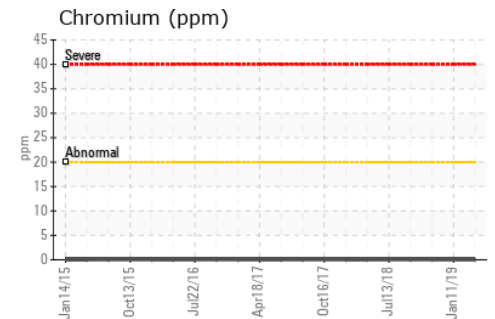
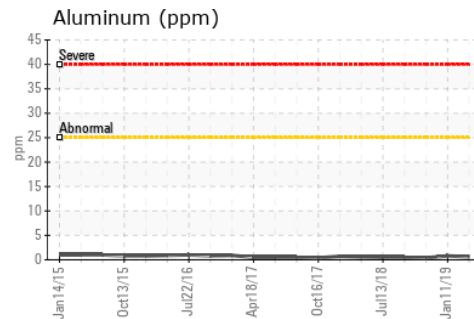
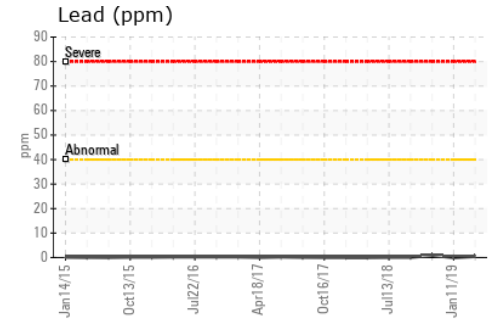
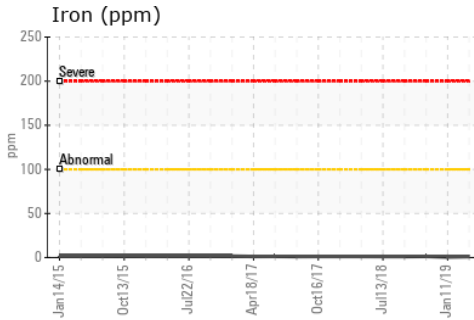
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual	>0.2	NEG	NEG
Free Water	scalar	Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279	15.6	13.7	14.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC1234567 **Received** : 26 Apr 2019
Lab Number : 01234567 **Diagnosed** : 26 Apr 2019
Unique Number : 12345678 **Diagnostician** : Wes Davis
Test Package : MOB 1

Cusany Logistics Inc.
 1212 Industrial Place
 Centerville, OH
 USA 75900
 Contact: Jim Leduc
 jim.leduc@cusanylogisticsinc.com
 T: (305)555-1212
 F: (305)555-1222

To discuss diagnosis or test data, contact Technical Support at 1-800-268-2131.
 To change component or sample information, contact Customer Service at 1-800-268-2131.