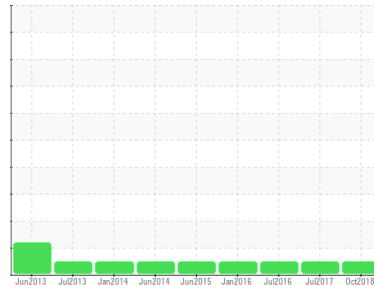


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
MACK 124
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (36 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			PC977564	PC394507	PC391158
Sample Date			25 Oct 2018	18 Jul 2017	22 Jul 2016
Machine Age	kms		896190	791557	631454
Oil Age	kms		86510	82743	77056
Oil Changed			Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	ASTM D3524	>3.0	<1.0	<1.0	<1.0
Glycol	ASTM D2982		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185 >120	48	34	10
Chromium	ppm	ASTM D5185 >20	<1	<1	<1
Nickel	ppm	ASTM D5185 >5	1	1	<1
Titanium	ppm	ASTM D5185 >2	0	0	<1
Silver	ppm	ASTM D5185 >2	0	0	0
Aluminum	ppm	ASTM D5185 >20	5	4	4
Lead	ppm	ASTM D5185 >40	3	6	1
Copper	ppm	ASTM D5185 >330	2	3	2
Tin	ppm	ASTM D5185 >15	<1	1	<1
Antimony	ppm	ASTM D5185	0	<1	1
Vanadium	ppm	ASTM D5185	0	0	0
Beryllium	ppm	ASTM D5185	0	0	0
Cadmium	ppm	ASTM D5185	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185 2	2	<1	103
Barium	ppm	ASTM D5185 0	0	<1	<1
Molybdenum	ppm	ASTM D5185 50	59	52	12
Manganese	ppm	ASTM D5185 0	<1	<1	<1
Magnesium	ppm	ASTM D5185 950	905	856	61
Calcium	ppm	ASTM D5185 1050	1083	1239	2268
Phosphorus	ppm	ASTM D5185 995	946	973	1014
Zinc	ppm	ASTM D5185 1180	1184	1260	1202
Sulfur	ppm	ASTM D5185 2600	2145	2334	3268
Lithium	ppm	ASTM D5185	0	<1	<1

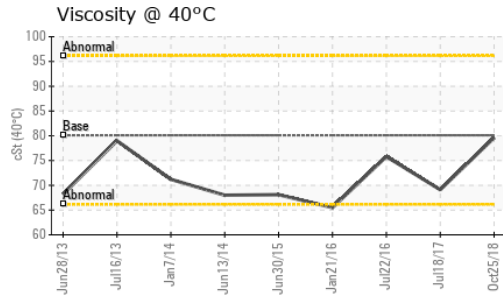
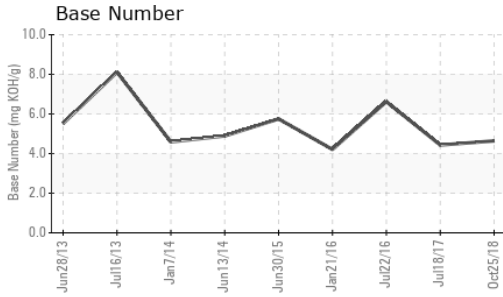
CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185 >25	6	6	14
Sodium	ppm	ASTM D5185	6	6	5
Potassium	ppm	ASTM D5185 >20	2	1	<1

INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	ASTM D7686 >4	0.4	0.2	0
Nitration	Abs/cm	ASTM D7624 >20	14.0	12.7	8.0
Sulfation	Abs/.1mm	ASTM D7415 >30	29.2	30.3	22.6

OIL ANALYSIS REPORT

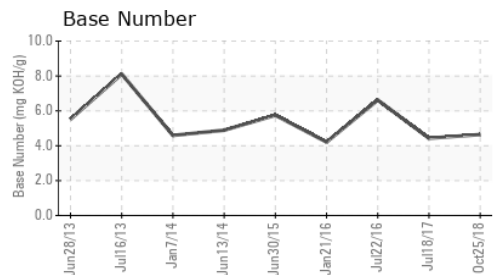
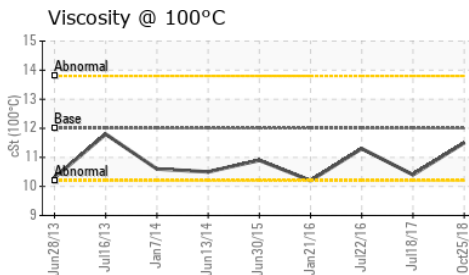
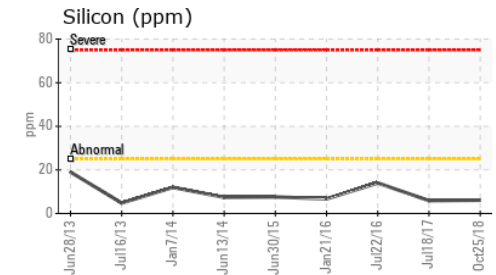
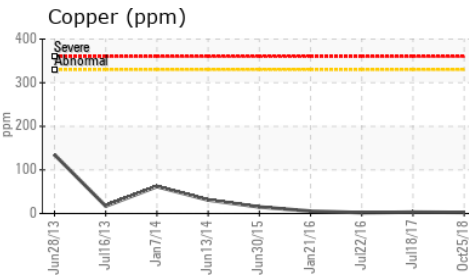
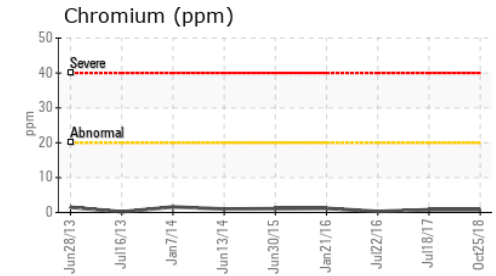
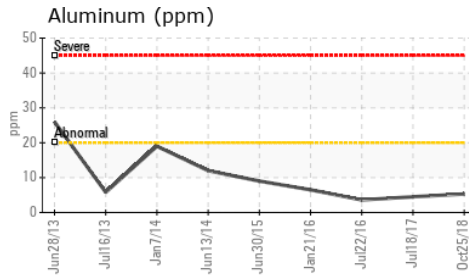
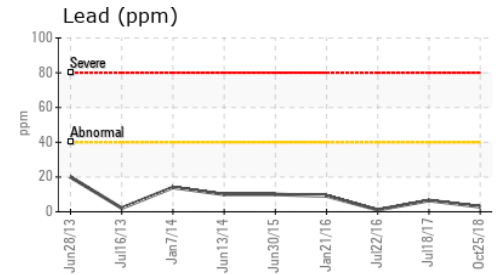
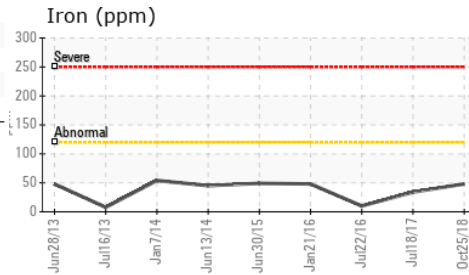


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs./1mm	ASTM D7414	>25	30.4	25.6	17.7
Base Number (BN)	mg KOH/g	ASTM D2896		4.64	4.43	6.62

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

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279	80.1	79.6	69.1	75.8
Visc @ 100°C	cSt	ASTM D7279	12.00	11.5	10.4	11.3
Viscosity Index (VI)	Scale	ASTM D2270	144	136	136	140

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC1234567 **Received** : 28 Dec 2018
Lab Number : **01234567** **Diagnosed** : 02 Jan 2019
Unique Number : 12345678 **Diagnostician** : Kevin Marson
Test Package : MOB 2 (Additional Tests: KV40, VI)

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.*