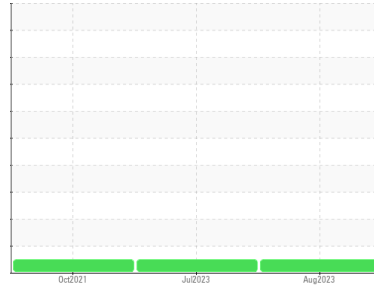


OIL ANALYSIS REPORT



Area
EXCAVATOR
Machine Id
CATERPILLAR 325F 2448
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

Sample Rating Trend



NORMAL

✓

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. (Customer Sample Comment: Engine Oil)

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	history1	history2
Sample Number	Client Info			PCA0064445	PCA0064267	PCA0046799
Sample Date	Client Info			23 Aug 2023	26 Jul 2023	14 Oct 2021
Machine Age	hrs Client Info			5971	5679	3276
Oil Age	hrs Client Info			5971	5679	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION

		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS

		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	3	10	12
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	0	<1
Lead	ppm	ASTM D5185m	>40	<1	2	<1
Copper	ppm	ASTM D5185m	>330	<1	1	<1
Tin	ppm	ASTM D5185m	>15	0	0	<1
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		10	3	6
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		61	47	60
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		923	771	844
Calcium	ppm	ASTM D5185m		1125	1322	1145
Phosphorus	ppm	ASTM D5185m		1056	966	1011
Zinc	ppm	ASTM D5185m		1220	1182	1122
Sulfur	ppm	ASTM D5185m		3399	3445	2633

CONTAMINANTS

		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	2	1
Sodium	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	2

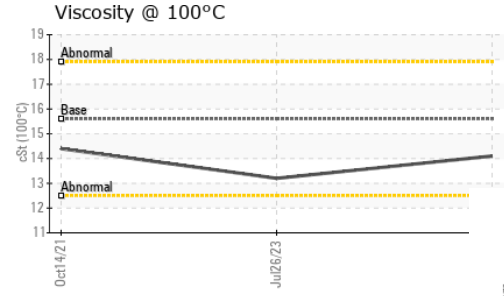
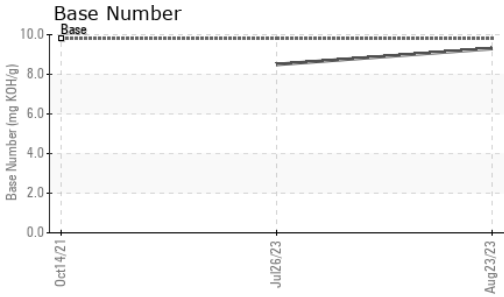
INFRA-RED

		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	4.7	6.6	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.4	19.0	19.7

FLUID DEGRADATION

		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8	13.5	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.3	8.5	---

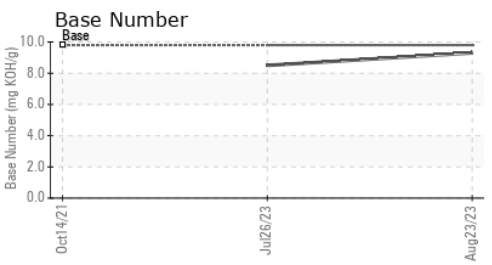
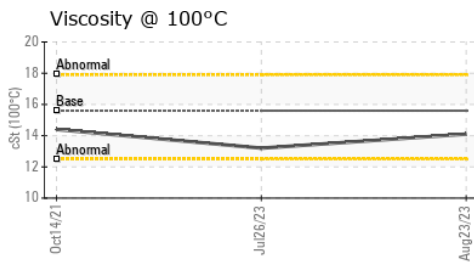
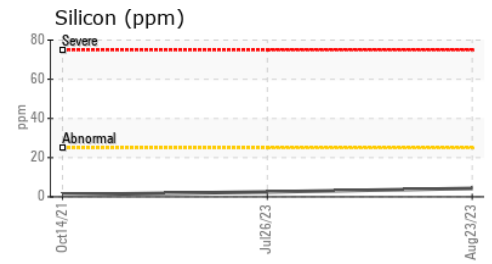
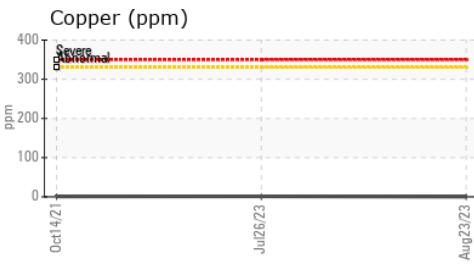
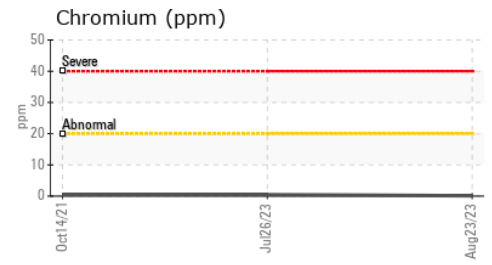
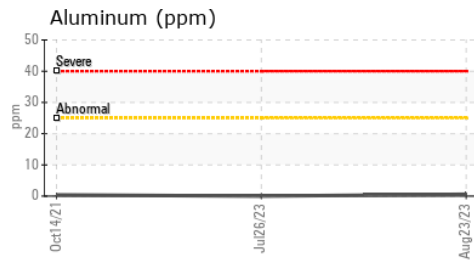
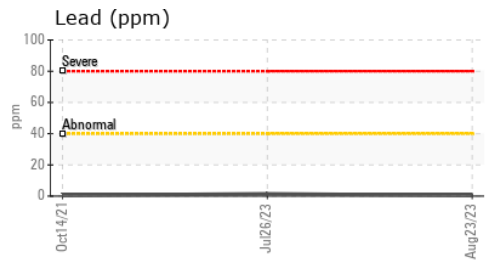
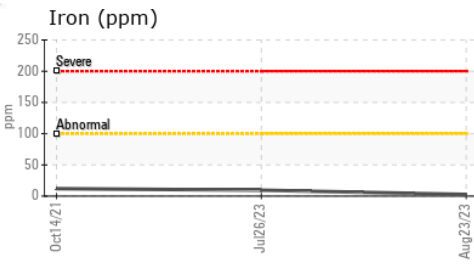
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.6	14.1	13.2	14.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0064445 **Received** : 28 Aug 2023
Lab Number : 05936619 **Diagnosed** : 29 Aug 2023
Unique Number : 10621890 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

D-CONSTRUCTION
 1488 S BROADWAY
 COAL CITY, IL
 US 60416
 Contact: J. MASCOLO
 J.MASCOLO@DCONSTRUCTION.COM
 T: (815)518-3150
 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)