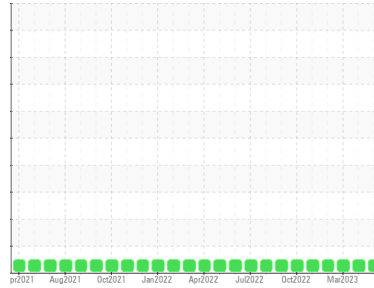


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
ALBERT LEA
Machine Id
Unit 04 DB010104E

Component
Natural Gas Engine
Fluid
PETRO CANADA DURON MONOGRADE HD 40W (350 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

SAMPLE INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	PCA0088287	PCA0088285	PCA0088283
Sample Date	Client Info	31 May 2023	28 Apr 2023	31 Mar 2023
Machine Age	hrs Client Info	13894	13816	13816
Oil Age	hrs Client Info	13894	13816	13816
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history 1	history 2
Iron ppm ASTM D5185m	>50	4	4	3
Chromium ppm ASTM D5185m	>4	0	<1	0
Nickel ppm ASTM D5185m	>2	0	<1	0
Titanium ppm ASTM D5185m		0	0	0
Silver ppm ASTM D5185m	>3	0	<1	0
Aluminum ppm ASTM D5185m	>9	<1	4	1
Lead ppm ASTM D5185m	>30	0	1	0
Copper ppm ASTM D5185m	>35	1	1	1
Tin ppm ASTM D5185m	>4	<1	2	0
Vanadium ppm ASTM D5185m		0	0	0
Cadmium ppm ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history 1	history 2
Boron ppm ASTM D5185m		2	2	1
Barium ppm ASTM D5185m		0	0	<1
Molybdenum ppm ASTM D5185m		6	6	6
Manganese ppm ASTM D5185m		<1	<1	<1
Magnesium ppm ASTM D5185m		973	925	916
Calcium ppm ASTM D5185m		1115	1080	1067
Phosphorus ppm ASTM D5185m		1146	1141	1088
Zinc ppm ASTM D5185m		1353	1357	1310
Sulfur ppm ASTM D5185m		3935	3967	3716

CONTAMINANTS

method	limit/base	current	history 1	history 2
Silicon ppm ASTM D5185m	>+100	3	4	3
Sodium ppm ASTM D5185m		<1	1	0
Potassium ppm ASTM D5185m	>20	0	2	0
Fuel % ASTM D3524	>4.0	1.4	1.1	1.1

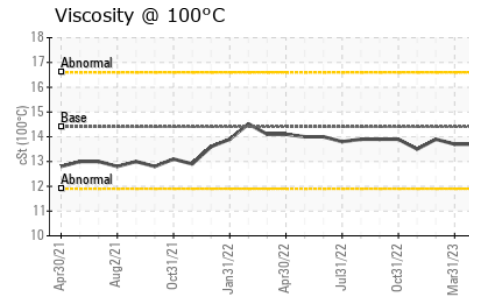
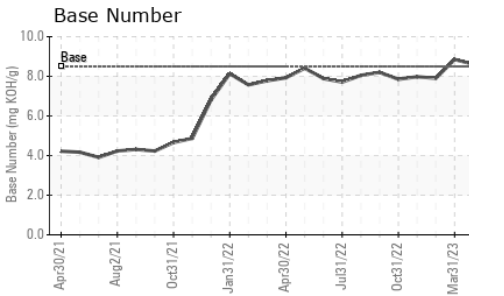
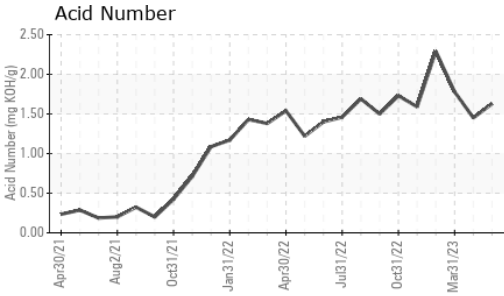
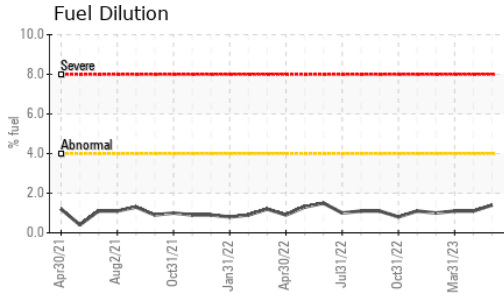
INFRA-RED

method	limit/base	current	history 1	history 2
Soot % *ASTM D7844		0.1	0.1	0.1
Nitration Abs/cm *ASTM D7624	>20	4.1	3.9	4.1
Sulfation Abs/.1mm *ASTM D7415	>30	14.0	13.2	13.4

FLUID DEGRADATION

method	limit/base	current	history 1	history 2
Oxidation Abs/.1mm *ASTM D7414	>25	8.6	7.1	7.0
Acid Number (AN) mg KOH/g ASTM D8045		1.63	1.45	1.78
Base Number (BN) mg KOH/g ASTM D2896	8.5	9.66	8.61	8.85

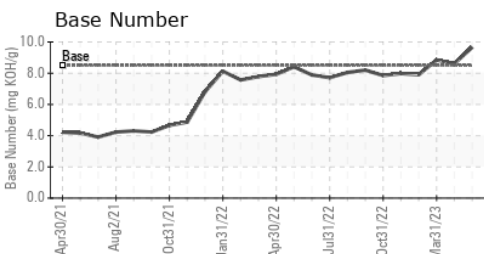
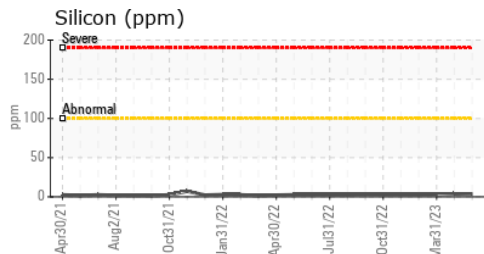
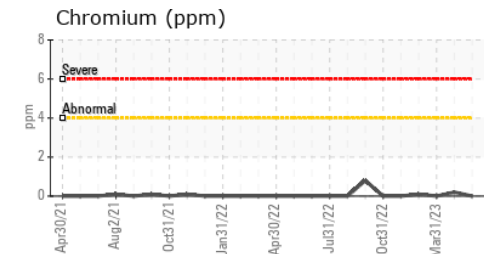
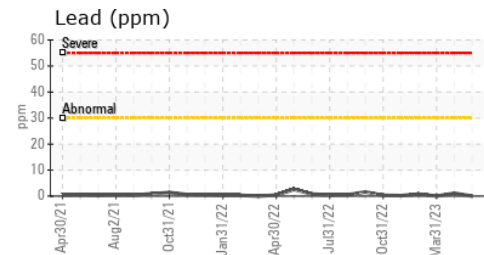
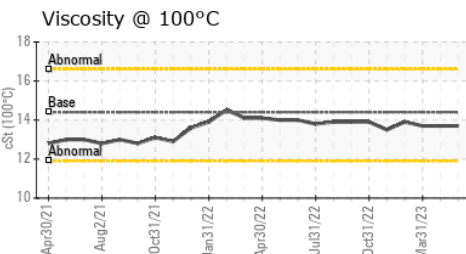
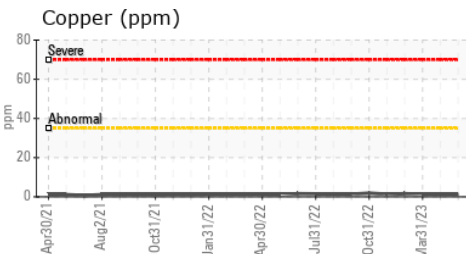
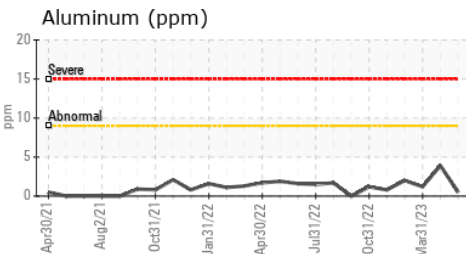
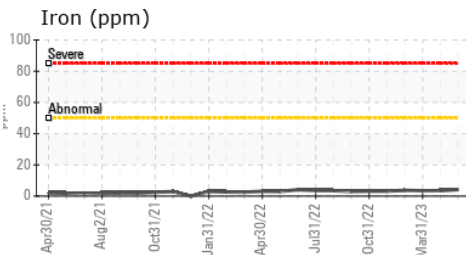
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	13.7	13.7

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0088287 **Received** : 30 Jun 2023
Lab Number : **05888442** **Diagnosed** : 05 Jul 2023
Unique Number : 10538925 **Diagnostician** : Sean Felton
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

11406 755th Avenue
 Glenville, MN
 US 56036
 Contact: Shawn Duren
 shawn.duren@magellanlp.com
 T: (641)231-6666
 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)