



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[142229]
 Machine Id
NAPIER & DUNDAS PS
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0919647	WC0791194	WC0498289
Sample Date		Client Info		05 Apr 2024	19 Apr 2023	24 Apr 2021
Machine Age	hrs	Client Info		64	39	0
Oil Age	hrs	Client Info		64	39	148
Filter Age	hrs	Client Info		64	39	148
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Not Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>200	11	10	3
Chromium	ppm	ASTM D5185(m)	>20	1	1	0
Nickel	ppm	ASTM D5185(m)	>2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<1	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	1	1	2
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>30	3	3	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	<1

CONTAMINATION

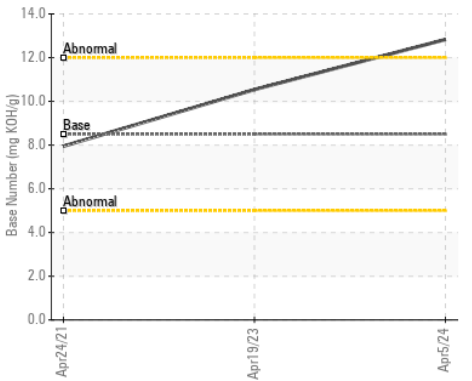
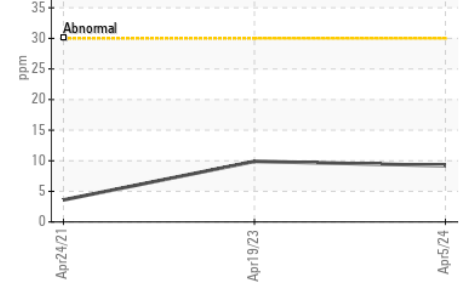
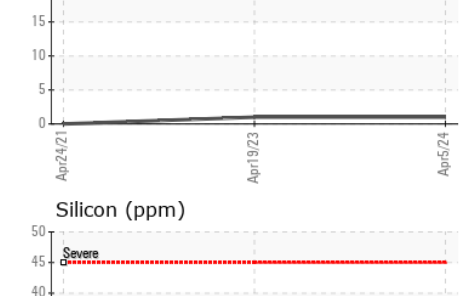
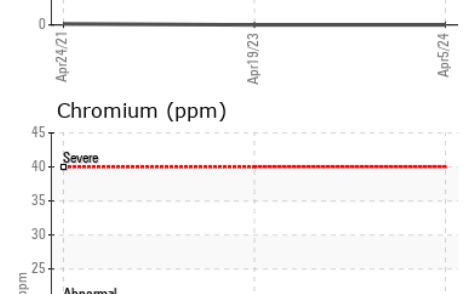
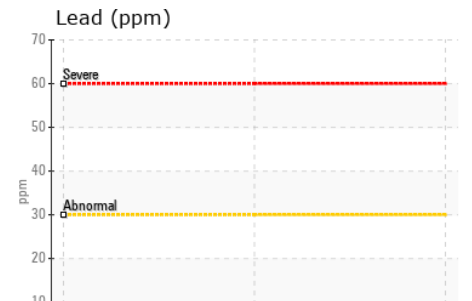
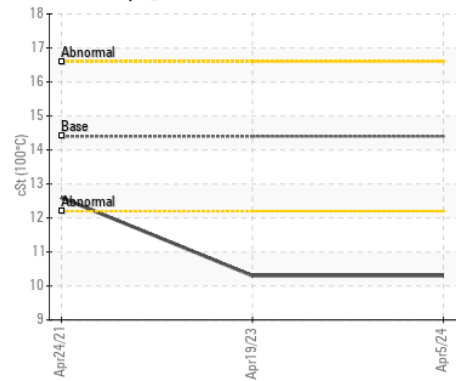
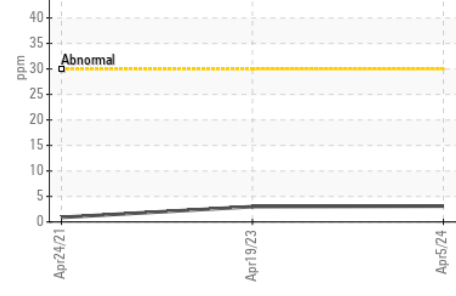
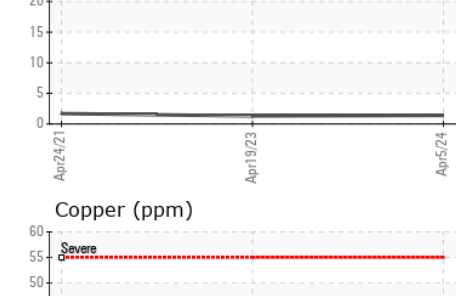
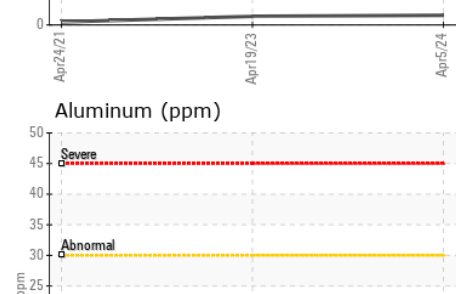
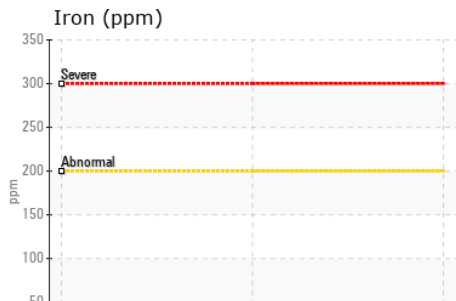
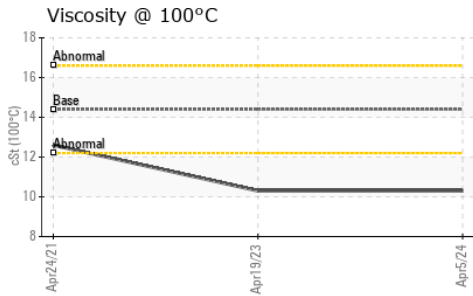
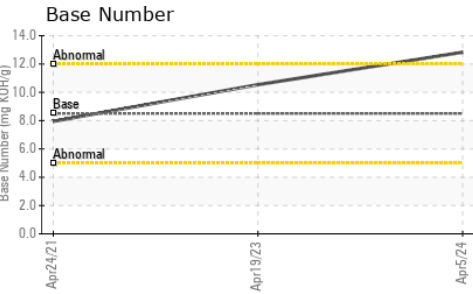
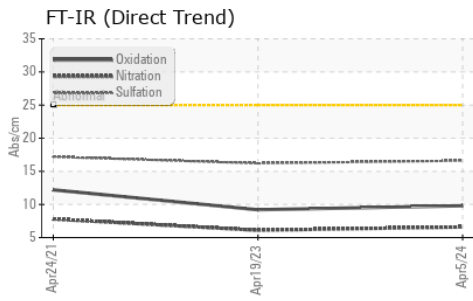
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	9	10	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	2
Fuel		WC Method	>3.0	<1.0	0.9	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.6	6.1	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	16.6	16.2	17.2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185(m)	>158	3	3	4
Boron	ppm	ASTM D5185(m)	250	194	193	50
Barium	ppm	ASTM D5185(m)	10	<1	0	2
Molybdenum	ppm	ASTM D5185(m)	100	68	65	57
Manganese	ppm	ASTM D5185(m)		2	2	<1
Magnesium	ppm	ASTM D5185(m)	450	23	23	18
Calcium	ppm	ASTM D5185(m)	3000	3168	3263	2069
Phosphorus	ppm	ASTM D5185(m)	1150	692	732	896
Zinc	ppm	ASTM D5185(m)	1350	744	735	1038
Sulfur	ppm	ASTM D5185(m)	4250	3257	3319	3132
Oxidation	Abs/.1mm	ASTM D7414*	>25	9.8	9.2	12.2
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	12.83	10.54	7.95
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	10.3	10.3	12.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0919647 **Received** : 15 Apr 2024
Lab Number : 02628682 **Tested** : 16 Apr 2024
Unique Number : 5761814 **Diagnosed** : 16 Apr 2024 - Wes Davis
Test Package : MOB 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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