



Machine Id
NEW FLYER 428 (S/N 6511726157)
Component
Transmission (Auto)
Fluid
PETRO CANADA DuraDrive HD Synthetic 668 (30 LTR)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

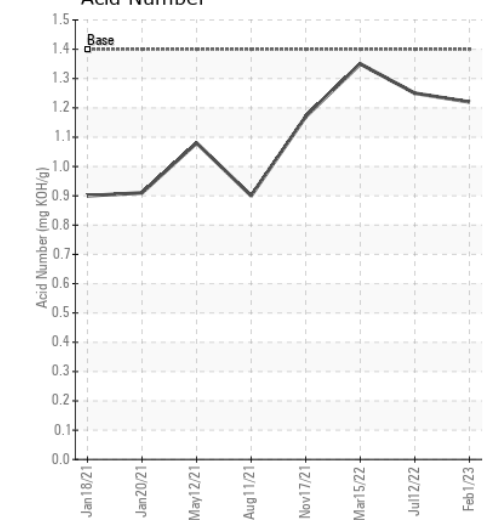
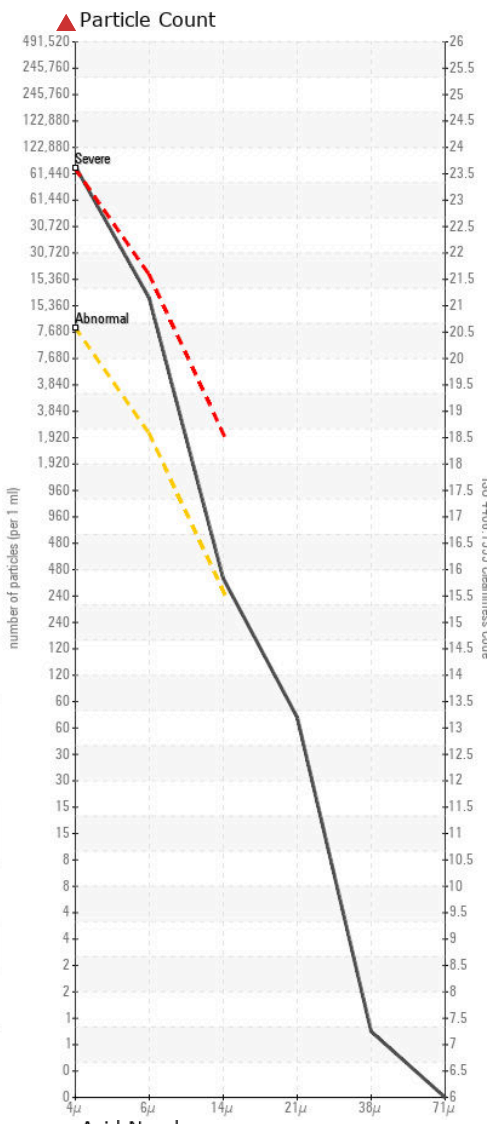
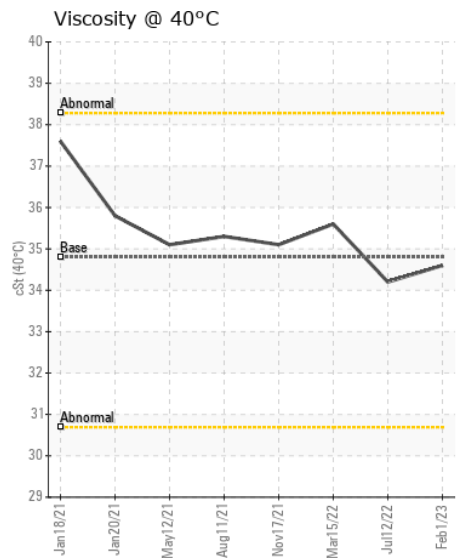
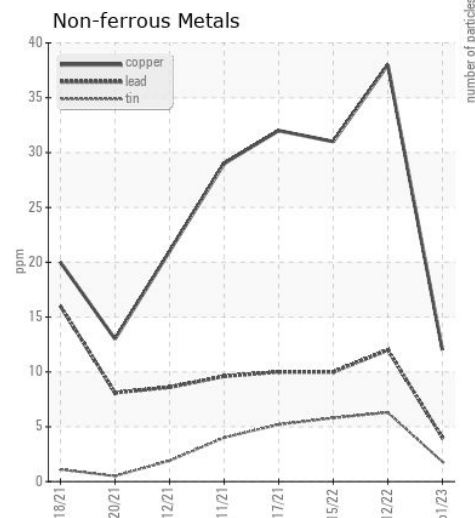
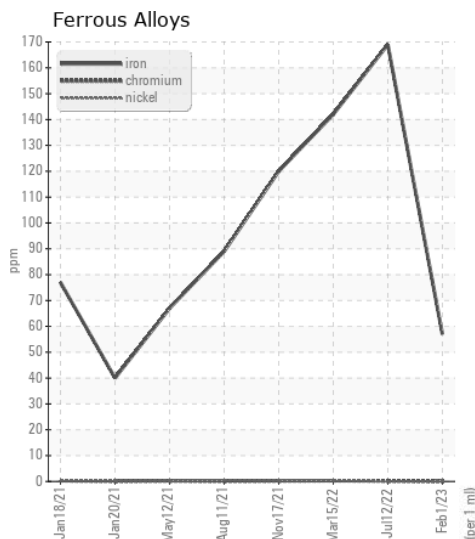
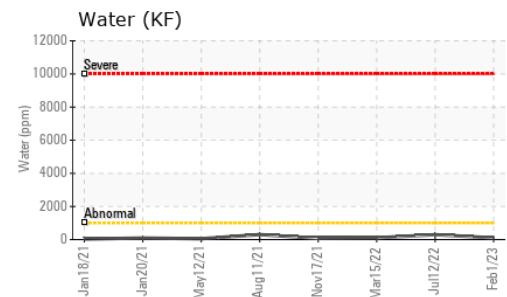
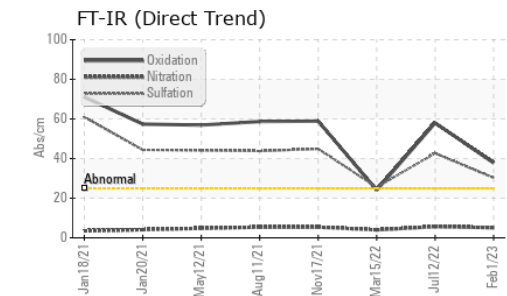
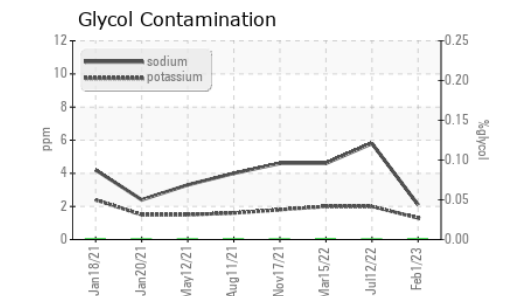
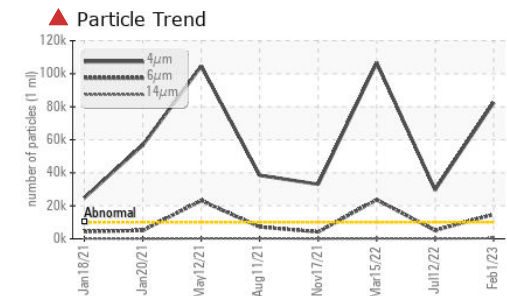
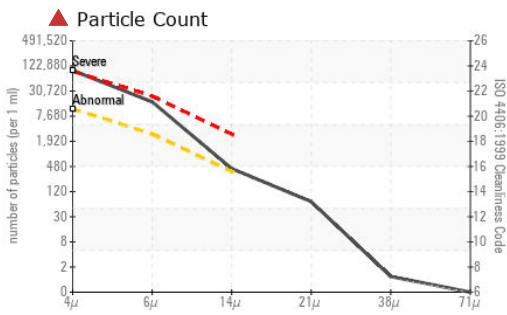
CONTAMINATION

Oil Cleanliness are severely high. Particles >4µm are severely high. Particles >6µm are abnormally high. Particles >14µm are notably high. The water content is negligible.

FLUID CONDITION

The AN level is acceptable for this fluid. The fluid is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0064073	PC0064086	PC0064081
Sample Date		Client Info		01 Feb 2023	12 Jul 2022	15 Mar 2022
Machine Age	kms	Client Info		170040	130329	105883
Oil Age	kms	Client Info		170040	106697	0
Filter Age	kms	Client Info		146408	106697	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185(m)	>230	57	169	142
Chromium	ppm	ASTM D5185(m)	>2	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>65	16	45	37
Lead	ppm	ASTM D5185(m)	>55	4	12	10
Copper	ppm	ASTM D5185(m)	>85	12	38	31
Tin	ppm	ASTM D5185(m)	>5	2	▲ 6	▲ 6
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>20	6	9	8
Potassium	ppm	ASTM D5185(m)	>20	1	2	2
Water	%	ASTM D6304*	>0.1	0.010	0.029	0.010
ppm Water	ppm	ASTM D6304*	>1000	103.1	296.8	105.8
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*		5.1	5.7	4.0
Sulfation	Abs/.1mm	ASTM D7415*		30.3	42.7	25.5
Particles >4µm		ASTM D7647	>10000	▲ 82506	▲ 29640	▲ 106720
Particles >6µm		ASTM D7647	>2500	▲ 14723	▲ 5118	▲ 23701
Particles >14µm		ASTM D7647	>320	● 376	106	170
Particles >21µm		ASTM D7647	>80	61	8	8
Particles >38µm		ASTM D7647	>20	1	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 24/21/16	▲ 22/20/14	▲ 24/22/15
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		2	6	5
Boron	ppm	ASTM D5185(m)	78	68	63	71
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1	<1
Manganese	ppm	ASTM D5185(m)		<1	2	2
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	113	112	86	82
Phosphorus	ppm	ASTM D5185(m)	222	235	222	238
Zinc	ppm	ASTM D5185(m)		3	6	5
Sulfur	ppm	ASTM D5185(m)	1326	1643	902	858
Oxidation	Abs/.1mm	ASTM D7414*		37.8	58.0	24.1
Acid Number (AN)	mg KOH/g	ASTM D974*	1.4	1.22	1.25	1.35
Visc @ 40°C	cSt	ASTM D7279(m)	34.8	34.6	34.2	35.6
Visc @ 100°C	cSt	ASTM D7279(m)	7.0	6.7	6.6	6.6
Viscosity Index (VI)	Scale	ASTM D2270*	167	154	151	142



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PC0064073

Lab Number : 02543205

Unique Number : 5540210

Test Package : MOB 2 (Additional Tests: FT-IR, Glycol, KF, KV100, PrtCount, TAN Man, VI)

Received : 06 Mar 2023

Tested : 07 Mar 2023

Diagnosed : 07 Mar 2023 - Kevin Marson

WINNIPEG TRANSIT

421 OSBORNE STREET

WINNIPEG, MB

CA R3L 2A2

Contact: Jason Lavoie

jlavoie@winnipeg.ca

T: (204)986-4762

F:

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.