



Machine Id
NEW FLYER 435 (S/N 6511730513)
Component
Transmission (Auto)
Fluid
PETRO CANADA DuraDrive HD Synthetic 668 (30 LTR)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0064076	PC0060043	PC0057342
Sample Date		Client Info		13 Jan 2023	14 Jul 2022	07 Apr 2022
Machine Age	kms	Client Info		149225	108821	0
Oil Age	kms	Client Info		137324	96920	0
Filter Age	kms	Client Info		149225	96920	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>230	143	126	110
Chromium	ppm	ASTM D5185(m)	>2	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<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	31	26	20
Lead	ppm	ASTM D5185(m)	>55	16	9	8
Copper	ppm	ASTM D5185(m)	>85	30	28	23
Tin	ppm	ASTM D5185(m)	>5	2	2	1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

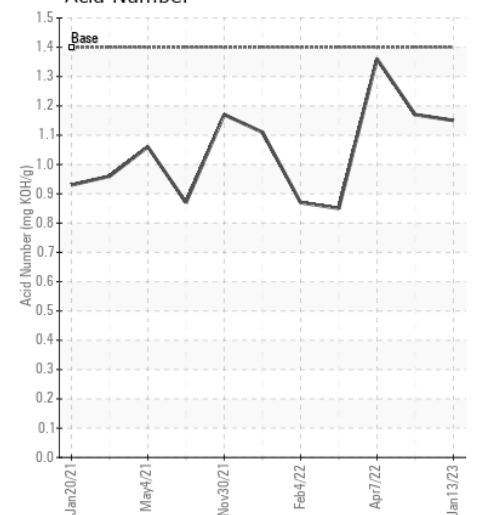
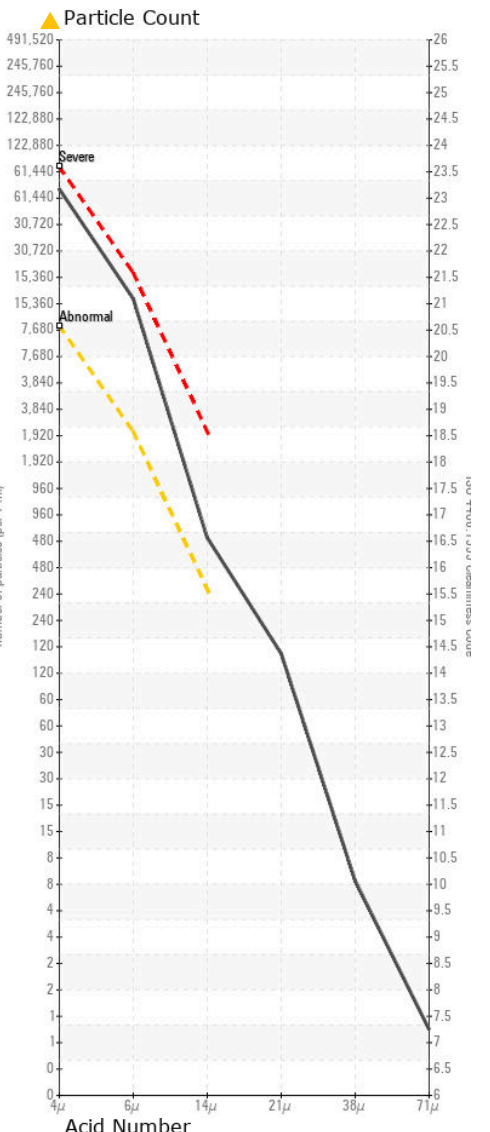
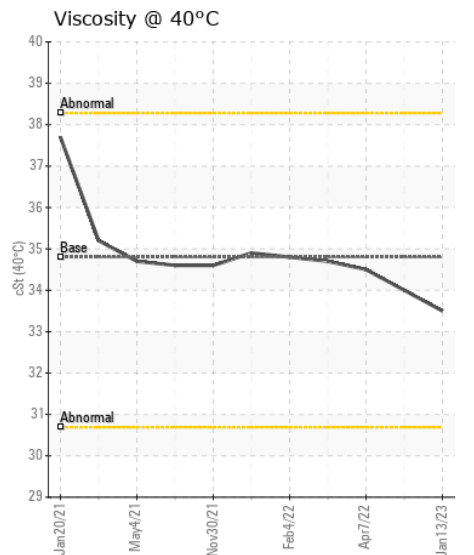
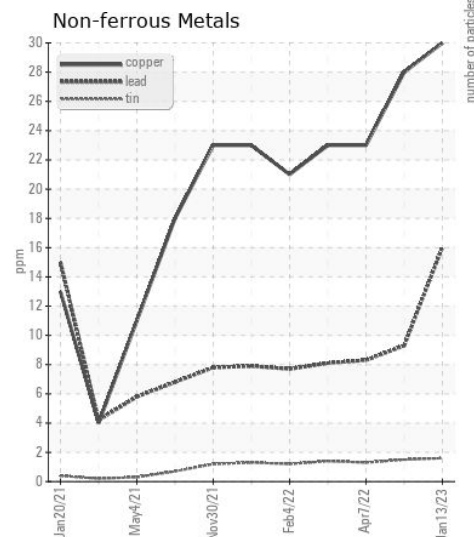
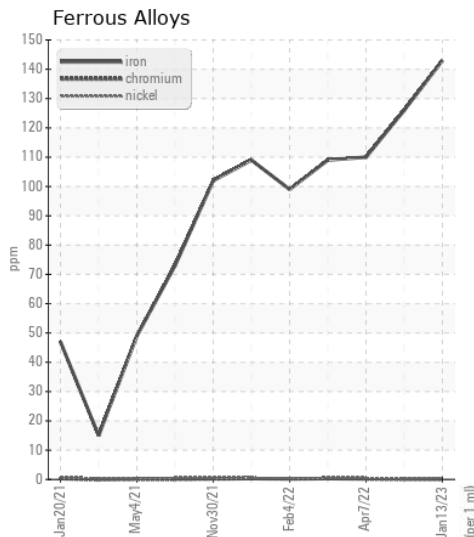
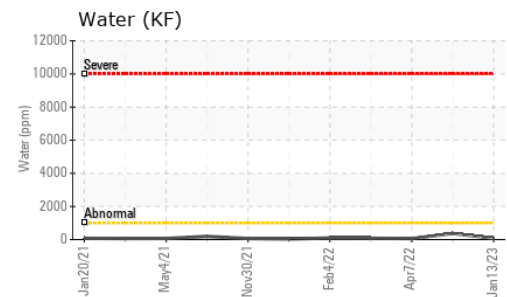
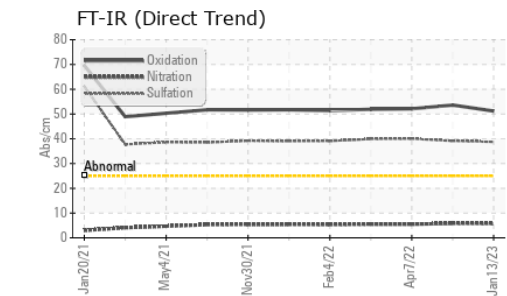
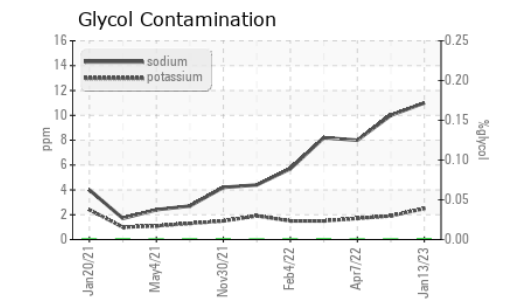
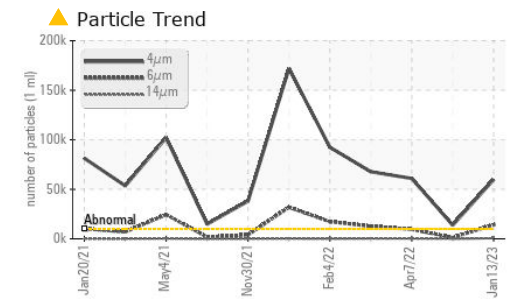
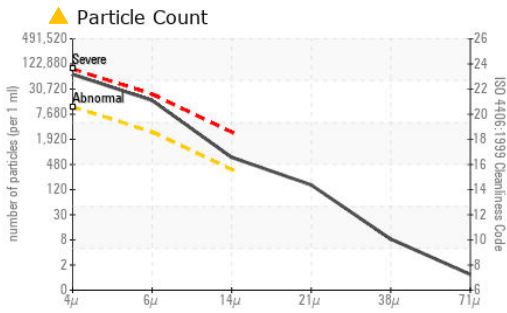
Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are notably high. Particles >21µm are notably high. The water content is negligible.

Silicon	ppm	ASTM D5185(m)	>20	10	9	8
Potassium	ppm	ASTM D5185(m)	>20	2	2	2
Water	%	ASTM D6304*	>0.1	0.008	0.036	0.006
ppm Water	ppm	ASTM D6304*	>1000	80.7	366.8	62.7
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*		5.7	5.8	5.5
Sulfation	Abs/.1mm	ASTM D7415*		38.7	39.1	40.0
Particles >4µm		ASTM D7647	>10000	▲ 59800	● 13734	▲ 60932
Particles >6µm		ASTM D7647	>2500	▲ 14242	● 1210	▲ 9554
Particles >14µm		ASTM D7647	>320	● 624	● 51	● 203
Particles >21µm		ASTM D7647	>80	● 137	● 12	● 31
Particles >38µm		ASTM D7647	>20	7	1	3
Particles >71µm		ASTM D7647	>4	1	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 23/21/16	● 21/17/13	▲ 23/20/15
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	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

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.

Sodium	ppm	ASTM D5185(m)		11	10	8
Boron	ppm	ASTM D5185(m)	78	59	61	69
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	<1
Manganese	ppm	ASTM D5185(m)		2	2	2
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	113	102	99	94
Phosphorus	ppm	ASTM D5185(m)	222	244	221	234
Zinc	ppm	ASTM D5185(m)		7	7	6
Sulfur	ppm	ASTM D5185(m)	1326	1090	1068	1014
Oxidation	Abs/.1mm	ASTM D7414*		51.2	53.6	52.1
Acid Number (AN)	mg KOH/g	ASTM D974*	1.4	1.15	1.17	1.36
Visc @ 40°C	cSt	ASTM D7279(m)	34.8	33.5	34.0	34.5
Visc @ 100°C	cSt	ASTM D7279(m)	7.0	6.6	6.7	6.6
Viscosity Index (VI)	Scale	ASTM D2270*	167	156	158	149



ISO 17025:2017
Accredited
Laboratory

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

Sample No. : PC0064076

Lab Number : 02543200

Unique Number : 5540205

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

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.

WINNIPEG TRANSIT

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