



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
NISSAN ROGUE
 Component
Gasoline Engine
 Fluid
MOBIL 1 0W20 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0806717	WC0806716	WC0698511
Sample Date		Client Info		01 Nov 2023	11 Jul 2023	25 Aug 2022
Machine Age	mls	Client Info		152018	7100	120657
Oil Age	mls	Client Info		0	0	6000
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	6	11	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>40	4	5	---
Lead	ppm	ASTM D5185m	>50	0	0	---
Copper	ppm	ASTM D5185m	>155	<1	2	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

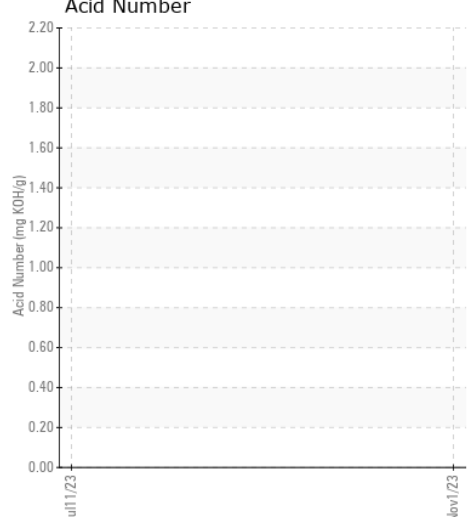
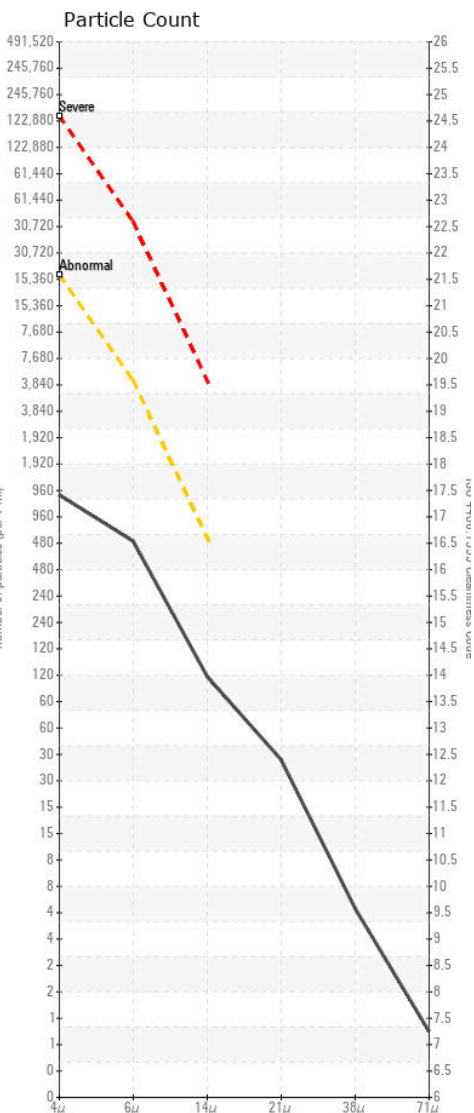
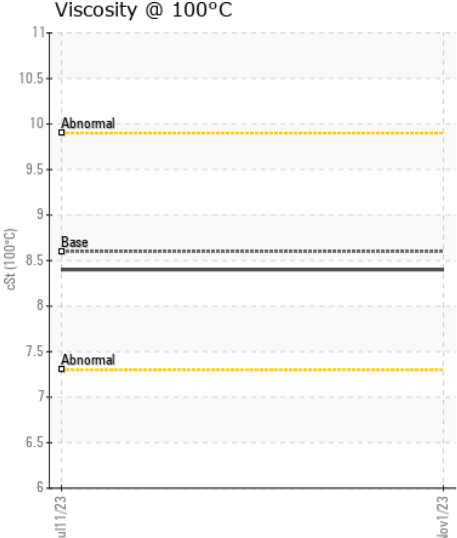
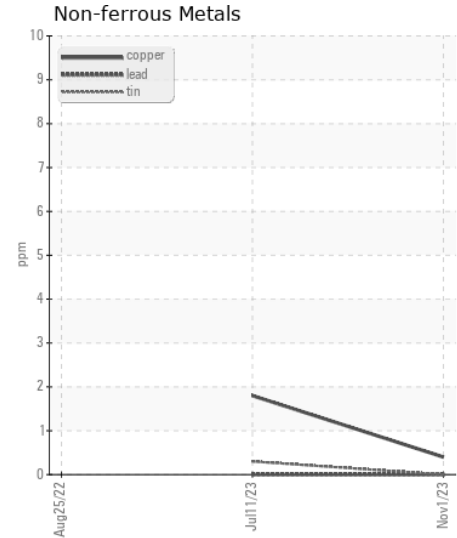
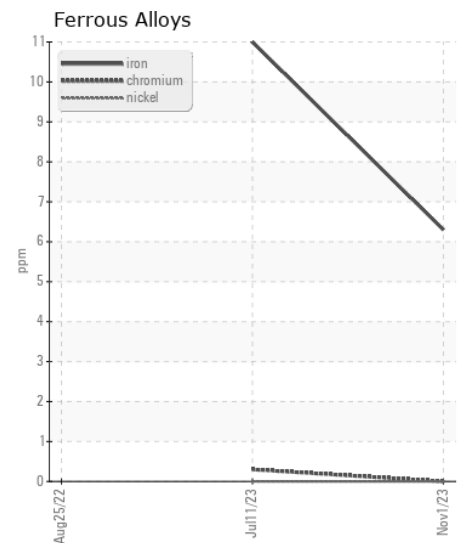
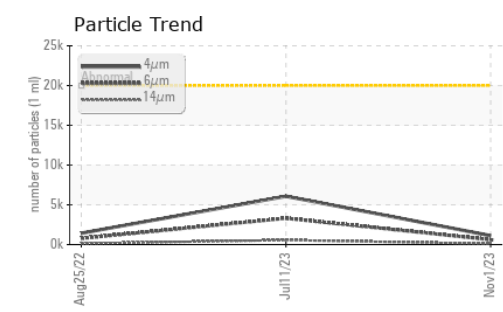
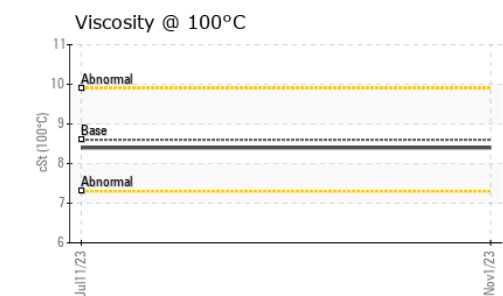
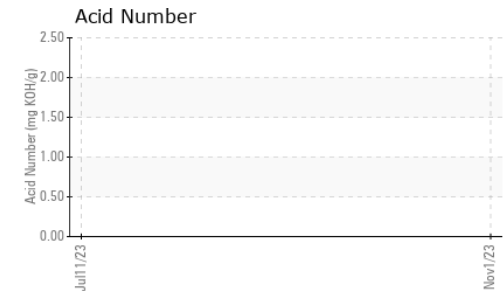
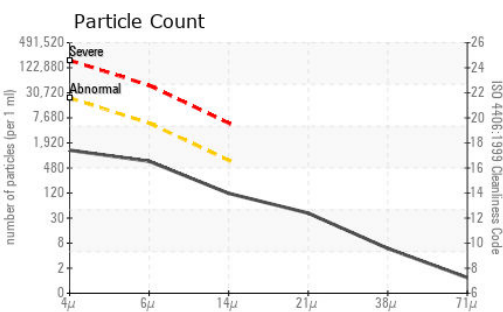
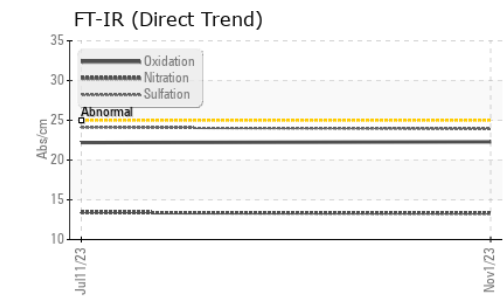
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>30	21	24	---
Potassium	ppm	ASTM D5185m	>20	9	3	---
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	13.3	13.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	24.1	---
Particles >4µm		ASTM D7647	>20000	1122	6081	1429
Particles >6µm		ASTM D7647	>5000	611	3313	778
Particles >14µm		ASTM D7647	>640	104	564	132
Particles >21µm		ASTM D7647	>160	35	190	45
Particles >38µm		ASTM D7647	>40	5	29	7
Particles >71µm		ASTM D7647	>10	1	3	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	17/16/14	20/19/16	18/17/14
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	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>400	3	<1	---
Boron	ppm	ASTM D5185m	70	34	35	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	60	93	98	---
Manganese	ppm	ASTM D5185m	0	<1	<1	---
Magnesium	ppm	ASTM D5185m	620	686	740	---
Calcium	ppm	ASTM D5185m	875	703	794	---
Phosphorus	ppm	ASTM D5185m	450	653	713	---
Zinc	ppm	ASTM D5185m	525	853	883	---
Sulfur	ppm	ASTM D5185m	1300	2147	2644	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.3	22.2	---
Acid Number (AN)	mg KOH/g	ASTM D8045		2.11	---	---
Visc @ 100°C	cSt	ASTM D445	8.6	8.4	8.4	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0806717 **Received** : 06 Nov 2023
Lab Number : 06000006 **Tested** : 08 Nov 2023
Unique Number : 10728366 **Diagnosed** : 08 Nov 2023 - Wes Davis
Test Package : MOB 2 (Additional Tests: PrtCount)

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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)