WEAR
CONTAMINATION
FLUID CONDITION

NORMAL NORMAL

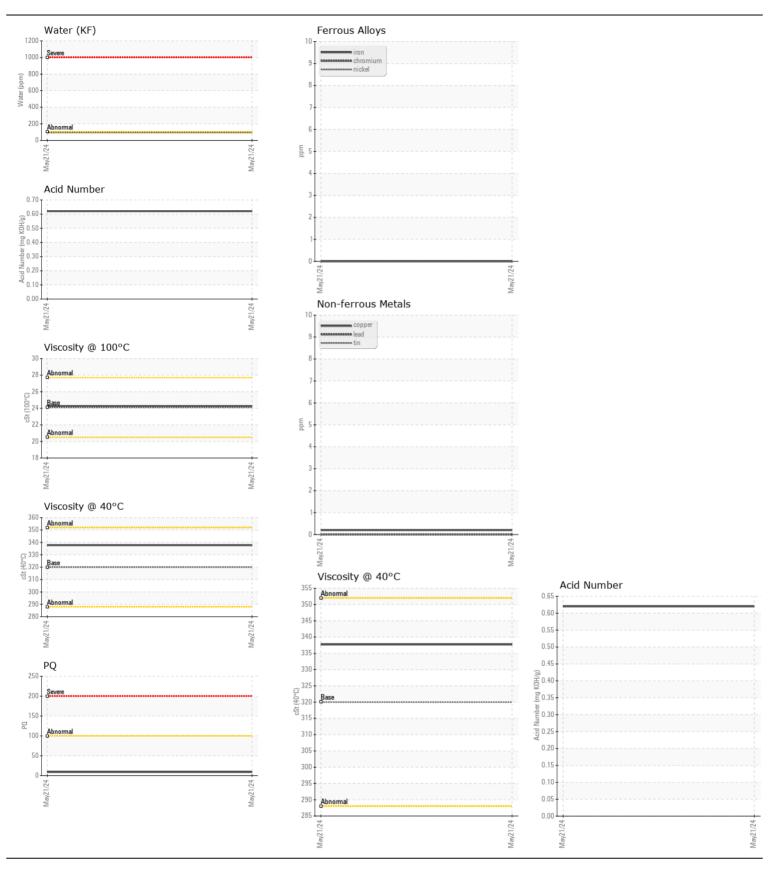
MELT SHOP

CRM TOTE T189 - MOBIL SPARTAN EP 320

New (Unused) Oil

MOBIL SPARTAN EP 320 (275 GAL)

Test Sample Number	UOM	Method	Limit/Abn	Current	History1	History2
campio mambo.		Client Info		RP0042548		
Sample Date		Client Info		21 May 2024		
Machine Age	hrs	Client Info		0		
ū						
	1110					
		Onone into				
PQ		ASTM D8184		9		
Iron	ppm	ASTM D5185m	>5	0		
Chromium	ppm	ASTM D5185m	>5	0		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>5	<1		
Aluminum	ppm	ASTM D5185m	>5	0		
Lead		ASTM D5185m	>5	0		
Copper	ppm	ASTM D5185m	>5	<1		
		ASTM D5185m	>5	0		
Vanadium		ASTM D5185m		<1		
White Metal	scalar	*Visual	NONE	NONE		
		*Visual	NONE			
Silicon	ppm	ASTM D5185m	>15	4		
Potassium	ppm	ASTM D5185m	>20	1		
Water	%	ASTM D6304		0.009		
ppm Water	ppm	ASTM D6304		97		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual		NEG		
Sodium	ppm			<1		
Boron	ppm			27		
	ppm			0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		0		
Calcium	ppm	ASTM D5185m		0		
Phosphorus	ppm	ASTM D5185m		189		
Zinc	ppm	ASTM D5185m		0		
Acid Number (AN)	mg KOH/g	ASTM D8045		0.62		
Visc @ 40°C	cSt	ASTM D445	320	337.7		
	Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium White Metal Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Acid Number (AN)	Filter Age Oil Changed Filter Changed Sample Status PQ Iron ppm Chromium ppm Nickel ppm Titanium ppm Silver ppm Aluminum ppm Lead ppm Copper ppm Tin ppm Vanadium ppm White Metal scalar Yellow Metal scalar Silicon ppm Potassium ppm Water % ppm Water ppm Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Codor scalar Emulsified Water scalar Sodium ppm Boron ppm Barium ppm Manganese ppm Magnesium ppm Calcium ppm Calcium ppm Phosphorus Zinc ppm Acid Number (AN) mg KOHg	Filter Age Oil Changed Filter Changed Filter Changed Sample Status PQ ASTM D8184 Iron Chromium ppm ASTM D5185m Chromium ppm ASTM D5185m Titanium ppm ASTM D5185m Aluminum ppm ASTM D5185m Copper ppm ASTM D5185m Tin ppm ASTM D5185m Tin ppm ASTM D5185m Vanadium ppm ASTM D5185m Visual Yellow Metal Scalar Visual Silicon ppm ASTM D5185m Vater % ASTM D5185m Visual Scalar *Visual Appearance Scalar Scalar *Visual Scalar *Visual Scalar *Visual Appearance Scalar *Visual Scalar *Visual Appearance Appearance Scalar *Visual Appearance Appearance Scalar *Visual Appearance Appearance Astm D5185m Astm D5185m Astm D5185m Astm D5185m Astm D5185m Astm D5185m Astm D	Filter Age Oil Changed Filter Changed Filter Changed Sample Status PQ ASTM D8184 Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Silver Aluminum ppm ASTM D5185m Silver ppm ASTM D5185m ASTM D5185m Silver ppm ASTM D5185m Silver ASTM D5185m Silver ASTM D5185m Silver Potassium ppm ASTM D5185m Silver ASTM D5185m ASTM	Filter Age	Filter Age







Laboratory Sample No.

Lab Number : 06191752

: RP0042548 Unique Number : 11048504

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed Test Package: IND 2 (Additional Tests: FT-IR, KV100, PQ, PrtCount, VI)

: 03 Jun 2024 : 03 Jun 2024 - Jonathan Hester

: 24 May 2024

CALVERT, AL US 36513 Contact: MARIO JOHNSON Mario.johnson@outokumpu.com T: (251)321-4105

OUTOKUMPU STAINLESS USA

* - 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)

F: x:

HWY 43 N