

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION ATTENTION

## Machine Id **PRINCETON 1356** Component **Diesel Engine** Fluid **SAE 5W20 (--- GAL)**

SAE 3W20 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Number		Client Info		WC0893814		
	Sample Date		Client Info		01 Feb 2024		
	Machine Age	hrs	Client Info		605		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ATTENTION		
				400	4		
WEAR	Iron	ppm	ASTM D5185m		<1		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m	0	0		
	Silver Aluminum	ppm	ASTM D5185m		0		
		ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		0		
	Copper Tin	ppm	ASTM D5185m ASTM D5185m		0		
	Vanadium	ppm		>10	0		
	White Metal	ppm scalar	ASTM D5185m *Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
		Scalai	visuai				
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5		
	Potassium	ppm	ASTM D5185m	>20	0		
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0		
	Nitration	Abs/cm	*ASTM D7624	>20	6.8		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	12.6		
	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	>0.2	NEG		
FLUID CONDITION	Sodium	nnm	ASTM D5185m		<1		
FLOID CONDITION	Boron	ppm ppm	ASTM D5185m		98		
The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		65		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		973		
	Calcium	ppm	ASTM D5185m		1255		
	Phosphorus	ppm	ASTM D5185m		881		
	Zinc	ppm	ASTM D5185m		1002		
	Sulfur	ppm	ASTM D5185m		2342		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	9.1		
	Dece No. 1 (D1)	KOU			10.0		

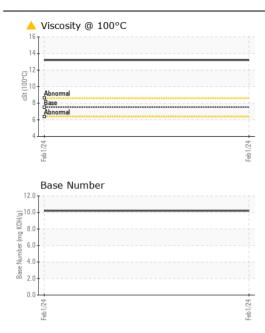
Base Number (BN) mg KOH/g ASTM D2896

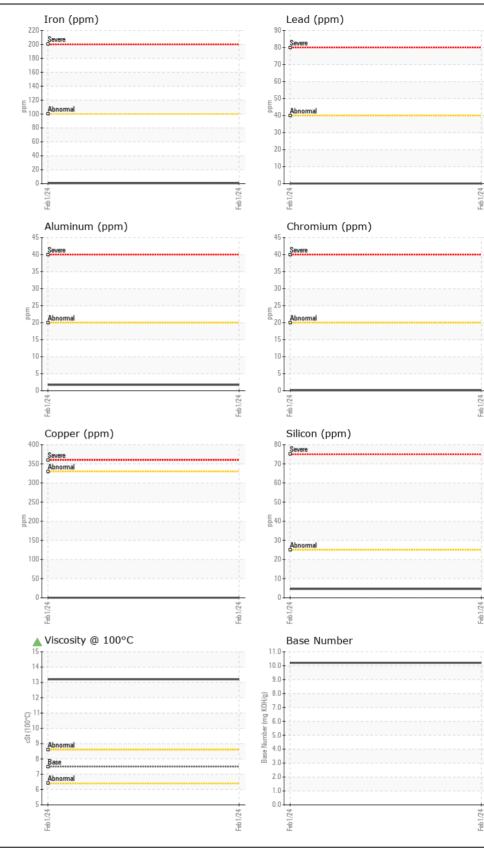
ASTM D445 7.5

Visc @ 100°C cSt

10.2

**13.2** 





**CONCRETE SERVICE CO - FAY BLOCK** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0893814 Received 161 BUILDERS BLVD : 12 Feb 2024 Lab Number : 06085921 Tested : 13 Feb 2024 FAYETTEVILLE, NC Unique Number : 10873366 : 13 Feb 2024 - Jonathan Hester US 28301 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: Service Manager Certificate L2367 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. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: Service Manager - CONFAY