

Machine Id **FSP141526** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION		Test	UO
	I to monitor. Please specify the ur next sample. Please specify the n your next sample.	Sample Number	
•		Sample Date	
brand, type, and viscosity of the oil on y		Machine Age	mls
brand, type, and viscosity of the off off y		Oil Age	mls
		Filter Age	mls
		Oil Changed	
		Filter Changed	
		Sample Status	
WEAR		Iron	naa

WEAR

All component wear rates are normal.

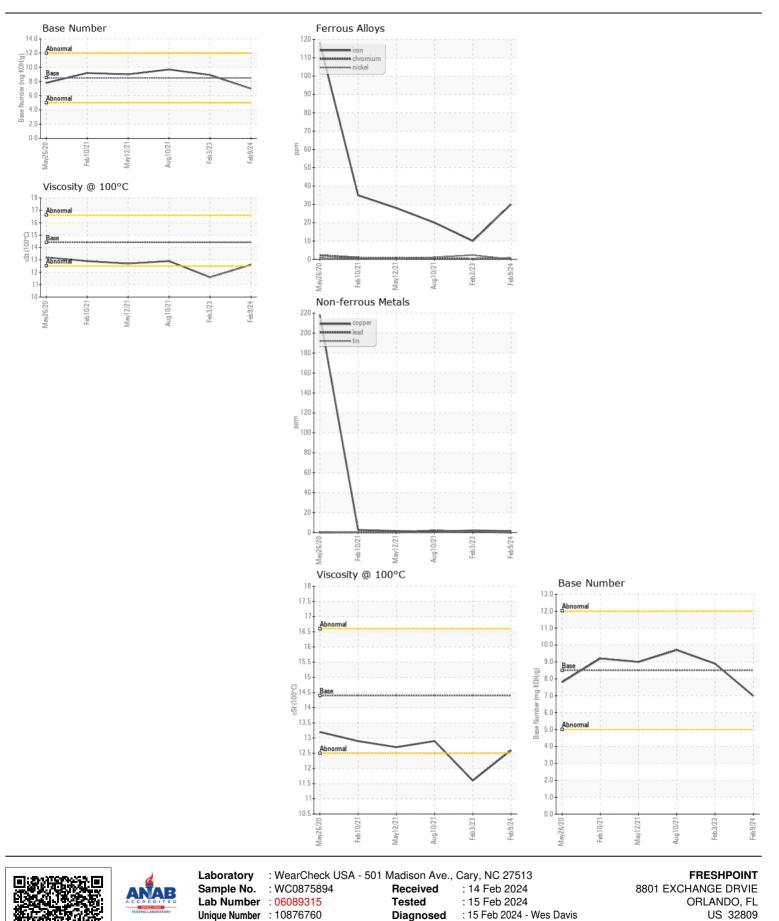
CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0875894	WC0717867	WC0612021
Sample Date		Client Info		09 Feb 2024	03 Feb 2023	10 Aug 2021
Machine Age	mls	Client Info		137497	98382	48106
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>100	30	10	20
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	2	1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	7	3	9
Lead	ppm	ASTM D5185m	>40	0	<1	2
Copper	ppm	ASTM D5185m	>330	1	2	<1
Tin	ppm	ASTM D5185m	>15	<1	1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon		ASTM D5185m	>25	7	4	5
Potassium	ppm	ASTM D5185m	>20	2	2	20
Fuel	ppm	WC Method	>20	2 <1.0	2	<1.0
Water		WC Method	>0.2	<1.0 NEG	NEG	NEG
Glycol		WC Method	>0.2	NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	11.5	8.0	10.2
Sulfation	Abs/.1mm	*ASTM D7624	>30	22.8	19.6	22.6
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	>0.2	NEG	NEG	NEG
			20.L		NEG	NLG
Sodium	ppm	ASTM D5185m	>158	2	3	3
Boron	ppm	ASTM D5185m	250	4	5	3
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	82	61	55
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	1011	865	950
Calcium	ppm	ASTM D5185m	3000	1175	1119	1091
Phosphorus	ppm	ASTM D5185m	1150	1072	961	990
Zinc	ppm	ASTM D5185m	1350	1310	1166	1139
Sulfur	ppm	ASTM D5185m	4250	3254	3644	2811
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.5	15.8	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.0	8.9	9.7
Visc @ 100°C	cSt	ASTM D445	14.4	12.6	1 1.6	12.9



Test Package : FLEET Contact: CRAIG EVANS Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. evans_craig@sbcglobal.net * - 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)

Contact/Location: CRAIG EVANS - FREORL

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