

## NORMAL WEAR NORMAL CONTAMINATION FLUID CONDITION NORMAL



## Feldman Lumber-Tractor [Feldman Lumber-Tractor] 196D263 Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		PCA0098284	PCA0091111	
•	Sample Date	mala	Client Info		03 Jun 2024	04 Apr 2023	
	Machine Age	mls	Client Info		24898	13375	
	Oil Age	mls	Client Info		11523 11523	4658	
	Filter Age	mls	Client Info			4658 Observed	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m	>80	22	11	
	Chromium	ppm	ASTM D5185m	>5	<1	<1	
	Nickel	ppm	ASTM D5185m	>2	0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>3	<1	0	
	Aluminum	ppm	ASTM D5185m	>30	6	0	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		44	56	
	Tin	ppm	ASTM D5185m		2	3	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		4	3	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		6	3	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844		0.4	0.2	
	Nitration	Abs/cm	*ASTM D7624		8.5	7.4	
	Sulfation	Abs/.1mm	*ASTM D7415		20.5	19.2	
	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	Sodium	ppm	ASTM D5185m		3	1	
	Boron	ppm	ASTM D5185m	2	15	24	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	2	
	Molybdenum	ppm	ASTM D5185m		66	54	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m		839	767	
	Calcium	ppm	ASTM D5185m		1152	1215	
	Phosphorus	ppm	ASTM D5185m		962	950	
	Zinc	ppm	ASTM D5185m		1169	1173	
	Sulfur	ppm	ASTM D5185m		2908	2946	
	Oxidation	Abs/.1mm	*ASTM D7414		16.0	15.0	
	Base Number (BN)				6.9	7.5	
		oC+		10.00	44.4	11.0	

Visc @ 100°C cSt

ASTM D445 12.00

11.1

11.2



