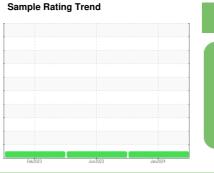


OIL ANALYSIS REPORT

Area (71095PC) Feldman Lumber-Tractor [Feldman Lumber-Tractor] 196D523 Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





NORMAL

		Fe	52023	Jun2023 Jan20	24	
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0106075	PCA0098280	PCA0089318
Sample Date		Client Info		25 Jan 2024	01 Jun 2023	15 Feb 2023
Machine Age	mls	Client Info		61035	51165	47525
Oil Age	mls	Client Info		9870	3640	5459
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINA	TION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR META	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	11	6	6
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	6	2	4
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	2	2	16
Tin	ppm	ASTM D5185m	>5	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	7	15	24
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	67	61	55
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	950	884	893	811
Calcium	ppm	ASTM D5185m	1050	1049	1151	1182
Phosphorus	ppm	ASTM D5185m	995	1024	964	904
Zinc	ppm	ASTM D5185m	1180	1241	1228	1131
Sulfur	ppm	ASTM D5185m	2600	2786	3532	3122
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	9	4	4
Sodium	ppm	ASTM D5185m		<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	4	1	4
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.5	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.5	7.4	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	19.0	18.5
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	14.8	13.6
-						

7.0

Base Number (BN) mg KOH/g ASTM D2896

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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.

8.7

8.7



13 cSt (100°C) 11 Base

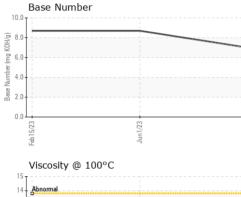
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Feb15/23

OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Jun1/23 -		scalar	*Visual	NORML	NORML	NORML	NORML
Jun Jan2	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.6	11.5
	GRAPHS						
	Ferrous Alloys						
123	iron			/			
Jun 1/23	nickel						
	8		/				
	Ē. 6-						
	4-						
	2						

	53	/23		724			
	Feb 15/23	Jun1/23		Jan 25/24			
	Non-ferrous Meta	als		,			
	¹⁶ T N						
	14- copper lead						
	12						
	10						
	<u>ة</u> 8-						
	6						
	4						
	2						
	12/23	23		24			
	ab 15/	Jun1/23		an 25/24			
	ت Viscosity @ 100°	С			Baco Numbor		
	15	С		9.0	Base Number		
	15 14 Abnormal	C		8.0	Base Number		
	15 14 Abnormal 13	C		8.0	Base Number		
	15 14 Abnormal 13	C		8.0	Base Number		
	15 14 Abnormal 13	c		8.0	Base Number		
	15 14 Abnormal 13 G 12 G 12 G 11 10	c		8.0	Base Number		
	15 14 13 13 12 12 8 ase	C		8.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0)) (0,7.0)(Base Number		
	15 14 Abnormal 13 600 12 8ase 43 11 10 Abnormal	C		8.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0)) (0,7.0)	Base Number		
	Abnormal 13 14 13 12 12 12 12 11 10 9 8			8.0 (b) 7.0 (b) HO (c) 0 (b) HO (c) 0 (c) HO (c) 0 (c) 10 (c) 10		1/23	
	15 14 Abnormal 13 600 12 8ase 43 11 10 Abnormal	C		8.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0 (0,7.0)) (0,7.0)	Base Number	22/tuur	
Laboratory Sample No. Lab Number Unique Number Unique Number Test Package	Abnormal Abnormal Abnormal Abnormal Abnormal Abnormal Base Example	501 Madis Recieved Diagnose Diagnosti	l : 30 c ed : 30 c ician : Wes	8.0 (0,10) (0,10	Feb 15/23	e - Shop 1960 - Feldi 1281 Metro Cont	politan Aven Brooklyn, N US 112 act: Marc Fri
Sample No. Lab Number Unique Number	Abnormal Abnormal Base Base Base Abnormal Abnormal Abnormal Base Example E	501 Madis Recieved Diagnose Diagnosti	l : 30 (ed : 30 (ician : Wes	8.0 (B)(HO) (B)(5.0 (B)(HO) (B)(5.0 (B)(5.0) (B)	Feb 15/23	e - Shop 1960 - Feldi 1281 Metro Cont	politan Aven Brooklyn, 1 US 112