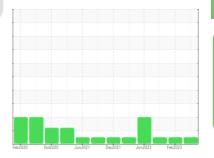


# **OIL ANALYSIS REPORT**

SAMPLE INFORMATION method

Sample Rating Trend





NORMAL

Machine Id **1926725** 

#### Component Diesel Engine Fluid

PETRO CANADA DURON SHP 10W30 (35 QTS)

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

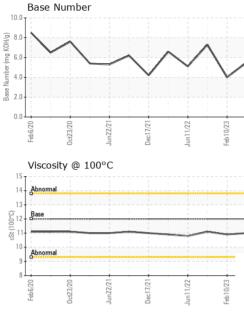
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		methou	mmubase	Current	Thistory I	Thistory2
Sample Number		Client Info		PCA0101694	PCA0092286	PCA0079901
Sample Date		Client Info		16 Jul 2023	10 Feb 2023	19 Aug 2022
Machine Age	mls	Client Info		321709	0	239613
Oil Age	mls	Client Info		321709	20000	17668
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	48	60	23
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		4	27	37
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	5	15	14
Lead	ppm	ASTM D5185m	>40	2	2	2
Copper	ppm	ASTM D5185m	>330	8	11	8
Tin	ppm	ASTM D5185m	>15	1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	3	15
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	60	35	35
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm	ASTM D5185m	950	915	646	680
Calcium	ppm	ASTM D5185m	1050	1190	1225	1406
Phosphorus	ppm	ASTM D5185m	995	1022	846	957
Zinc	ppm	ASTM D5185m	1180	1260	1028	1193
Sulfur	ppm	ASTM D5185m	2600	2981	3018	3495
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	6	4
Sodium	ppm	ASTM D5185m		14	23	12
Potassium	ppm	ASTM D5185m	>20	9	38	34
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.8	0.4
Nitration	Abs/cm	*ASTM D7624	>20	10.8	13.1	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	28.3	22.8
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.6	25.3	18.1
Base Number (BN)	mg KOH/g	ASTM D2896		5.5	4.0	7.3
	0 0					



# **OIL ANALYSIS REPORT**

VISUAL



			White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
$\sim$		$ \land $	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
~ \		$\sim \checkmark$	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
			Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
			Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
21-	21-	23	_ Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Jun22/21	Dec17/21	Jun 11/22 Feb 10/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
7		E	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
0°C			Emulsified Water	scalar	*Visual	>0.2	NEG		NEG	
			Free Water	scalar	*Visual		NEG	NEG	NEG	
			FLUID PROPE		method	limit/base	current	history1	history2	
			Visc @ 100°C GRAPHS	cSt	ASTM D445	12.00	11.0	10.9	11.1	
			Ferrous Alloys			N				
Jun22/21	Dec17/2	Jun11/22 Feb10/23	50 chromium nickel 30 20 00 00 00 00 00 00 00 00 0	LULLING als	Junii/22					
			Participation of the second se	Dec17/21-	Jun11/22	27/01 may				
			15			9.0	Base Number			
			14 - Abnormal			8.0	$\mathbf{h}$			
			13			(B7.0-			$\wedge$	
			0012 - Base 0012 - 3 11-			()37.0- HOX HOX HOX HOX HOX HOX HOX HOX HOX HOX	<u> </u>	$\sim \sim \sim$	$\checkmark \land \checkmark$	
								~	V	
			10			Z 3.0				
			9 -							
			8		5	0.0			3 5	
			Feb.6/20 0ct23/20	Dec17/21	Jun 11/22	7/01 00	Feb 6/20 0ct23/20	Jun22/21	Jun 1 1/22 Feb 1 0/23	
			0 7		-j 1	<u>.</u>	0		5 Ľ	
Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report * - Denotes test methods that			e : FLEET contact Customer Ser	Received: 22Diagnosed: 22Diagnostician: Wevice at 1-800-237-136		Aug 2023 Aug 2023 s Davis 9.	Сог	PERDUE FARMS - GEORGETOWN 20621 SAVANAH RD GEORGETOWN, DE US 19947 Contact: ROBERT LOCKWOOD Robert.Lockwood@Perdue.com T:		
			cifications are based on				ICGM 106:2012)		F:	