

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id 10530

Component **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (7 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

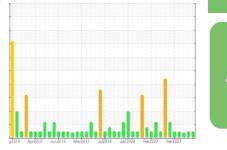
All component wear rates are normal.

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.



AL)		g2014 Apr20	15 Jun2016 May2017	Jul2018 Jan2020 Feb2022 F	eb2023	
SAMPLE INFOR	RMATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		GFL0086073	GFL0083252	GFL0080899
Sample Date		Client Info		27 Jun 2023	07 Jun 2023	23 Apr 2023
Machine Age	hrs	Client Info		20220	20058	19735
Oil Age	hrs	Client Info		485	323	508
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	ATTENTION
CONTAMINA	ΓΙΟΝ	method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	<1.0	<1.0	1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAI	LS	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>100	37	25	11
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	7	1	2
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	3	1	1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	10	13	93
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	61	53
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	780	776	344
Calcium	ppm	ASTM D5185m	1070	1184	1208	1856
Phosphorus	ppm	ASTM D5185m	1150	939	939	1025
Zinc	ppm	ASTM D5185m	1270	1204	1206	1232
Sulfur	ppm	ASTM D5185m	2060	3336	3371	3522
CONTAMINA	NTS	method	limit/base	current	history 1	history 2
0.11			05	4.0	0	10

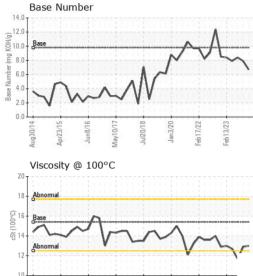
Silicon	ppm	ASTM D5185m	>25	12	9	12
Sodium	ppm	ASTM D5185m		42	23	21
Potassium	ppm	ASTM D5185m	>20	2	2	2

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	2.1	1.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.6	8.7	5.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	19.0	17.9
FLUID DEGRAD	DATION	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	12.0	11.9
Base Number (BN)	ma KOH/a	ASTM D2896	9.8	6.7	7.9	8.4



OIL ANALYSIS REPORT

VISUAL



Jun8/16 .

Apr23/15

ua30/14

A					current		
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
, N V L	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
11	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
/\\\	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
/718 - //20 - //20 - //22 - //23 - //2	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Jul20/18 Jan3/20 Feb17/22	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual	20.L	NEG	NEG	NEG
					NEG		
	FLUID PROPE		method	limit/base	current	history 1	history 2
	Visc @ 100°C	cSt	ASTM D445	15.4	13.0	12.9	1 1.7
20m	GRAPHS						
	V Ferrous Alloys						
Jul20/18 - Jan3/20 - Feb17/22 -	iron the chromium 150 -						
~ ヹ ヱ゚		1					
	튭 100 -	1					
		11	82080 N				
	50 M M	JN	MAN	1			
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	Aug30/14 Apr23/15 Jun8/16 May10/17	Jul20/18	Jan3/20 Feb17/22 Feb13/23				
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	140 - tin 120 -						
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	140 - tin 120 -	٨					
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	140 tin 120 tin 100 tin 60 tin 40 tin 20 tin 0 t	ut20/18	Jan 3/20 60 17/22 61 3/23				
	140 - tin 120 - to 100 100 - to		Jan320 Feb11/22				
	140 tin 120 tin 100 tin 60 tin 40 tin 20 tin 0 t		Jan3/20 Feb17/22 Feb13/23		Base Number		
	140 - tin 120 - tin 100 -		Jan3/20 Feb17/22 Feb13/23	14.	Timore Timore Tim		
	140 - tin 120 - tin 100 -		Jan320 Feb17/22 Feb13/23	14.]		
	140 - tin 120 - tin 100 - tin		Jan320 Feb17/22	14.]		~^_
	140 - tin 120 - tin 100 - tin		Jan3200 Feb17/22 Feb13/23	14.]		M
	140 120 100 100 100 100 100 100 10		Jan3/20 Feb17/22 Feb13/23	14.]		M
	140 120 100 100 100 100 100 100 10		Jan 3/20 Feb 17/22 Feb 13/23	14.]		M
	140 120 100 100 100 100 100 100 10		Jan3/20 Feb17/22 Feb13/23	14.	Base	w	M
	140 120 100 100 100 100 100 100 10	2~		14.1 12.0 (Ph(0)) Pb(10.1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		Ŵ	<i>.</i>
	140 120 100 100 100 100 100 100 10	2~		14.1 12.0 (Ph(0)) Pb(10.1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		10/17	
	140 120 100 100 100 100 100 100 10	2~	Jan320 Feb17/22 Feb13/23	14.1 12.0 (Ph(0)) Pb(10.1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Base	May 10/17 Jul20/18 Jul20/16	Feb 11/122
	140 100 100 100 100 100 100 100	S	Jan3/20 Feb17/22 Feb13/23	14.0 12.0 10,10,10,0 10,10,10,10 10,10,10,10 10,10,10 10,10,10 10,100 10,100	Aug30/14 Apr23/15 Apr23/16		
Laborato Sample N	ry : WearCheck USA - 5	2 2 8,002mr 501 Madis	000 Ave., Ca	14.0 12.0 1000 000 8.0 000 000 4.0 2.0 0.0 ry, NC 27513	Aug30/14 Apr23/15 Apr23/16	vironmental - 0	10 - Stockbridg
Laborato Sample N Lab Num	ry : WearCheck USA - 5 in the second state of	501 Madis Received	02/2/144 500n Ave., Ca 22/2/144	14.0 12.0 10,10,10,0 10,10,10,10 10,10,10,10 10,10,10 10,10,10 10,100 10,100	Aug30/14 Apr23/15 Apr23/16	vironmental - 0 1280 Rum	1 0 - Stockbrid 1 Creek Parkwa
Sample N	ry : WearCheck USA - 5 io. : GFL0086073 ber : 05886460	2 2 8,002mr 501 Madis	02[[urf] 02[[ur	14.1 12.1 10(110.1) 10.1 10.1 10.1 10.1 10.1 10.1 10.	Aug30/14 Apr23/15 Apr23/16	vironmental - 0 1280 Rum	10 - Stockbrid
Sample N Lab Num Unique Nu tificate L2367 Test Pac	ry : WearCheck USA - 5 bo : GFL0086073 ber : 10536943 kage : FLEET	501 Madis Received Diagnose	oon Ave., Ca ician : Wes	14.4 12.0 10.0 10.0 8.8 4.4 2.1 0.0 10.0 10.0 10.0 10.0 10.0 10.0 1	Aug30/14 Apr23/15 Apr23/16	vironmental - 0 1280 Rum Contact: J0	1 10 - Stockbrid n Creek Parkw Stockbridge, C US 302 DSHUA TINKE
Sample M Lab Num Unique Nu ificate L2367 Test Pac discuss this sample re	ry : WearCheck USA - 5 0. : GFL0086073 ber : 10536943	501 Madis Received Diagnose Diagnost	002000 E22/1000 son Ave., Ca a : 29 ad : 02 ician : West 00-237-1369	14.4 12.0 10.0	Aug30/14 Apr23/15 Apr23/16	vironmental - 0 1280 Rum Contact: J0	1 10 - Stockbrid n Creek Parkw Stockbridge, (US 302

Submitted By: TECHNICIAN ACCOUNT