

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (89711X) Walgreens Machine Id [Walgreens] 136A67150 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

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.

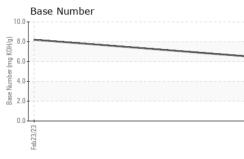
			Feb2023	Aug2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093567	PCA0082333	
Sample Date		Client Info		07 Aug 2023	23 Feb 2023	
Machine Age	mls	Client Info		420468	386714	
Oil Age	mls	Client Info		33754	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATIO	NC	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS	;	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	10	6	
Chromium	ppm	ASTM D5185m	>4	0	0	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		1	<1	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>25	2	1	
Lead	ppm	ASTM D5185m	>45	0	0	
Copper	ppm	ASTM D5185m	>85	2	1	
Tin	ppm	ASTM D5185m	>4	0	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
	ppm	method ASTM D5185m	limit/base	current <1	history1 3	history2
	ppm ppm					
Boron		ASTM D5185m	2	<1	3	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	<1 0	3 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	<1 0 57	3 0 69	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	<1 0 57 <1	3 0 69 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	<1 0 57 <1 878	3 0 69 <1 933	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	<1 0 57 <1 878 1090	3 0 69 <1 933 1204	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	<1 0 57 <1 878 1090 987	3 0 69 <1 933 1204 1033	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	<1 0 57 <1 878 1090 987 1169	3 0 69 <1 933 1204 1033 1246	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	<1 0 57 <1 878 1090 987 1169 3259	3 0 69 <1 933 1204 1033 1246 3415	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m MSTM D5185m	2 0 50 950 1050 995 1180 2600	<1 0 57 <1 878 1090 987 1169 3259 current	3 0 69 <1 933 1204 1033 1246 3415 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINANT Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600	<1 0 57 <1 878 1090 987 1169 3259 current 4	3 0 69 <1 933 1204 1033 1246 3415 history1 5	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >30	<1 0 57 <1 878 1090 987 1169 3259 Current 4 2	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >30	<1 0 57 <1 878 1090 987 1169 3259 current 4 2 0	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30 20 limit/base >33	<1 0 57 <1 878 1090 987 1169 3259 current 4 2 0 0	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1 <1 <1 +history1	 history2 history2
Boron Barium Aolybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30 20 limit/base >33	<1 0 57 <1 878 1090 987 1169 3259 <u>current</u> 4 2 0 <u>current</u> 0.4	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1 <1 <1 +istory1 0.4	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm pm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>limit/base</i> >30 220 <i>limit/base</i> >3 >20	<1 0 57 <1 878 1090 987 1169 3259 current 4 2 0 current 0.4 8.4	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1 5 1 <1 <1 history1 0.4 8.4	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm pm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >30 20 imit/base >3 >20 >30	<1 0 57 <1 878 1090 987 1169 3259 <u>current</u> 4 2 0 <u>current</u> 0.4 8.4 19.0	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1 <1 <1 0.4 8.4 19.1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	2 0 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 >30 >20 >30 >30 >30	<1 0 57 <1 878 1090 987 1169 3259 Current 4 2 0 Current 0.4 8.4 19.0 Current	3 0 69 <1 933 1204 1033 1246 3415 history1 5 1 <1 <1 history1 0.4 8.4 19.1 history1	 history2 history2 history2 history2

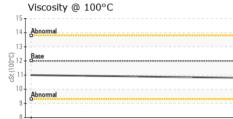


Feb23/23

OIL ANALYSIS REPORT

VISHAI





	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
_	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Aug7/23	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water		*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PRO	PERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	10.8	11.0	
-	GRAPHS						
	Ferrous Alloys						
	10 iron						
	8 - nickel	_					
	E 6						
	E 4						
	2						
	0						
				7/23			
	Feb 23/23			Aug7/23			
	Non-ferrous Me	etals					
	¹⁰ T						
	copper						
	8 - essesses tin						
	6						
	udd						
	4						
	2-						
	Feb 23/23			Aug7/23			
				Aı			
	Viscosity @ 100	0°C			Base Numbe	r	
	15			9.0			
	14 - Abnormal			8.0			
	13			(0,10 HO) bu bu bu bu bu bu bu bu bu bu bu bu bu b	+		
		*****		∑ 6.0 Ĕ.o			
	5 12 - Base						
				3.0			
				Se o o	1		
	10 - Abnormal			Z.U			
	10-			∞ 2.0 1.0			
	10 9 8			1.0			
	10 9 8			1.0			
	10 - Abnormal			1.0	Feb23/23		
	10 9 8 8 EZ/272 9	501 Madie	son AveCa	0.0 400 July	Feb23/23	vice - Shop 1365 - I	Serkelev-Naza
,	10 9 8	- 501 Madia Received		1.0 0.0 EZ/L ^{Bhy}	Feb23/23	vice - Shop 1365 - I 6813 (
	: WearCheck USA		: 22	0.0 400 July	Feb23/23	6813 (Chrisphalt Dr
er Der	: WearCheck USA PCA0093567	Received	d : 22 ed : 23	1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 1.0 0.0 0	Feb23/23	6813 (Ba	Chrisphalt Dr th Borough, US 180
y o. oer nber age	: WearCheck USA : PCA0093567 : 05931426	Received Diagnose Diagnost	d : 22 ed : 23 iician : We	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Feb23/23	6813 (Ba Contact: S	Serkeley-Nazar Chrisphalt Dr th Borough, US 180 tephen Mack ranservice.cc

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

Certificate L2367

Contact/Location: Stephen Mackes - TSV1365

T: (610)837-8103

F: (610)837-8105