

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

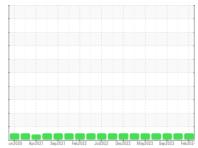


KEMP QUARRIES / PRYOR STONE [68457] Machine Id WL138

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Pm4 performed. All oil samples taken. All oils, and all filters changed.)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

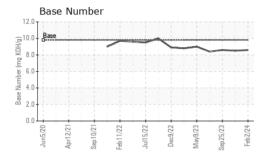
Fluid Condition

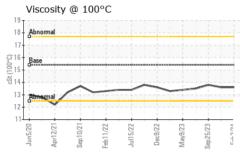
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

(,	unzozo Aprz	021 Sep2021 Feb2022			
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0086278	PCA0084323	PCA0084266
Sample Date		Client Info		02 Feb 2024	18 Nov 2023	25 Sep 2023
Machine Age	hrs	Client Info		33561	33032	32588
Oil Age	hrs	Client Info		529	444	444
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	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 METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	15	14	17
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	<1	<1
Lead	ppm	ASTM D5185m	>40	1	1	2
Copper	ppm	ASTM D5185m	>330	3	4	4
Tin	ppm	ASTM D5185m		0	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	3	0	0
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	59	58	63
Manganese	ppm	ASTM D5185m	0	<1	0	0
Magnesium	ppm	ASTM D5185m	1010	960	951	977
Calcium	ppm	ASTM D5185m	1070	1037	1059	1048
Phosphorus	ppm	ASTM D5185m	1150	1091	1060	1028
Zinc	ppm	ASTM D5185m	1270	1312	1278	1246
Sulfur	ppm	ASTM D5185m	2060	3210	3108	3082
CONTAMINANTS method limit/base current history1 history						
CONTAMINAN	ITS _	method	limit/base	current	history1	history2
CONTAMINAN Silicon	TS ppm		limit/base	current	history1	history2
			mmebacc	34.757.10		111010172
Silicon	ppm	ASTM D5185m	mmebacc	3	3	3
Silicon Sodium	ppm	ASTM D5185m ASTM D5185m	>25	3	3	3
Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>25	3 1 <1	3 1 0	3 3 2
Silicon Sodium Potassium INFRA-RED	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method *ASTM D7844	>25 >20 limit/base >3	3 1 <1 current	3 1 0 history1	3 3 2 history2
Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	>25 >20 limit/base >3 >20	3 1 <1	3 1 0 history1	3 3 2 history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 limit/base >3 >20	3 1 <1 current 0.4 6.7	3 1 0 history1 0.5 6.5	3 3 2 history2 0.5 6.6
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAL	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	>25 >20 limit/base >3 >20 >3 >20 limit/base	3 1 <1 current 0.4 6.7 19.2 current	3 1 0 history1 0.5 6.5 19.1 history1	3 3 2 history2 0.5 6.6 19.2 history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 limit/base >3 >20 >30	3 1 <1 current 0.4 6.7 19.2	3 1 0 history1 0.5 6.5 19.1	3 3 2 history2 0.5 6.6 19.2



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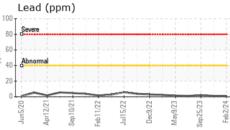


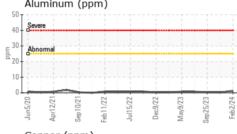
White Metal scala	r *Visual				
	i visuai	NONE	NONE	NONE	NONE
Yellow Metal scala	r *Visual	NONE	NONE	NONE	NONE
Precipitate scala	r *Visual	NONE	NONE	NONE	NONE
Silt scala	r *Visual	NONE	NONE	NONE	NONE
Debris scala	r *Visual	NONE	NONE	NONE	NONE
Sand/Dirt scala	r *Visual	NONE	NONE	NONE	NONE
Appearance scala	r *Visual	NORML	NORML	NORML	NORML
Odor scala	r *Visual	NORML	NORML	NORML	NORML
Emulsified Water scala	r *Visual	>0.2	NEG	NEG	NEG
Free Water scala	r *Visual		NEG	NEG	NEG

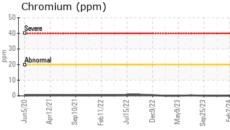
FLUID FROF	EULIES	memou			HISTORY	HISTORYZ
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.6	13.8

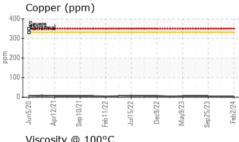
Severe		-	1			-		
Abnormal								
				\				
	1	\sim				-	=	
Jun5/20 Apr12/21	Sep10/2	Feb11/22	Jul15/22	Dec9/22	May9/23	Sep25/23	Feb2/24	
Ju Apı	Seg	물	n n	De	M	Sep	æ	
Alumin	ım (n	nm)						

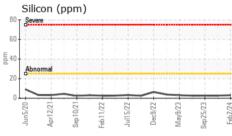
GRAPHS

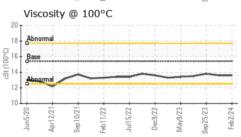


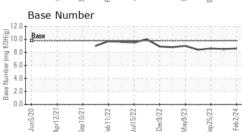














Laboratory Sample No. Lab Number : 06088090 Unique Number: 10875535

: PCA0086278

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 13 Feb 2024 **Tested** : 14 Feb 2024 Diagnosed

: 15 Feb 2024 - Don Baldridge

Kemp Quarries - Pryor Stone - Pryor 1050 E 520 Rd

Pryor, OK US 74361 Contact:

Test Package : MOB 1 (Additional Tests: TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

pryor@pryorstone.com T:

* - 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)

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