

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

KEMP QUARRIES / PRYOR STONE [69066] Machine Id WL116

Component Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Pm3 performed. All oil samples taken. Engine oil, and all filters changed.)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

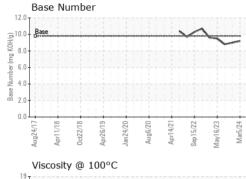
Fluid Condition

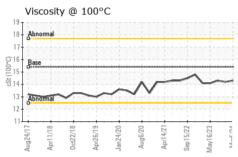
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Q2011 Apr2018 Ox2018 Apr2019 Jan2020 Apr2020 Apr2020 Apr2020 Apr2022 Mary2022 Mary20						
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0086596	PCA0084408	PCA0084248
Sample Date		Client Info		05 Mar 2024	21 Dec 2023	12 Aug 2023
Machine Age	hrs	Client Info		6476	6032	6032
Oil Age	hrs	Client Info		160	139	196
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	28	15	29
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	8	5	10
Lead	ppm	ASTM D5185m	>40	1	0	0
Copper	ppm	ASTM D5185m	>330	2	<1	3
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	3	3	3
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	60	65	62	63
Manganese	ppm	ASTM D5185m	0	1	0	<1
Magnesium	ppm	ASTM D5185m	1010	971	1069	1074
Calcium	ppm	ASTM D5185m	1070	1154	1200	1246
Phosphorus	ppm	ASTM D5185m	1150	985	1106	1132
Zinc	ppm	ASTM D5185m	1270	1224	1345	1404
Sulfur	ppm	ASTM D5185m	2060	3032	3360	4084
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	19	11	20
Sodium	ppm	ASTM D5185m		2	2	24
Potassium	ppm	ASTM D5185m	>20	3	0	2
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.0	5.5	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	18.1	17.6
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	13.9	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.2	9.0	8.8



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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
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID FNOF	ENTIES	memou			HISTOLAL	HISTOLYZ
Visc @ 100°C	cSt	ASTM D445	15.4	14.3	14.2	14.3

GRAPHS	
Iron (ppm)	Lead (ppm)
Severe	Severe
Abnormal	Abnormal Abnormal
	20
Aug54/17 Apr11/18 Oct22/18 Jan24/20 Aug6/20 Apr14/21	Mar5/24 - Mar5/24 - Mar5/24 - Mar5/24 - Mar5/24 - Mar5/24 - Mar24/20 - Mar6/20 - Mar6/22 - Mar6/22 - Mar6/22 - Mar6/22 - Mar6/23 - Mar6/24 - Mar6/
Apr11/18 Apr26/19 Jan24/20 Aug6/20 Apr14/21 Sep15/22	Mar5/24 Mar5/24 Aug24/17 Aug24/17 Apr11/18 Oct22/18 Apr26/19 Jan24/20 Apr14/21 Sep15/22 Mar5/24
Aluminum (ppm)	Chromium (ppm)
Severe	50 40 Severe
Abnormal	E Abnomal
-~-~	10
Aug/4/1/ Oc(22/18 + Apr26/19 - Jan24/20 - Aug6/20 + Apr14/21 - Sep15/22 -	724 724 718 718 720 720 720 720 720 720 720
Apr11/18 Oct22/18 Apr26/19 Jan24/20 Aug6/20 Apr14/21	May16/23 Mar5/24 Aug24/17 Aug24/17 Apr26/19 Oct22/18 Apr26/19 Jan24/20 Aug6/20 Aug6/20 May16/23 May16/23
Copper (ppm)	Silicon (ppm)
Severe Patritotimal	80 Severe
	60 +
	E 40 Abnormal
	20-
8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Aug24/17 Apr11/18 Oct22/18 Apr26/19 Apr26/19 Aug6/20 Aug6/20 Aug6/20 Sep 15/22 Sep 15/22	Mar5/24 Mag24/17 Aug24/17 Apr11/18 Oct22/18 Apr26/19 Apr14/21 Sep15/22 May16/23
Viscosity @ 100°C	Base Number
	⊋ _{10.0} Base
Abnormal	8.0
Base	0,00 Base Base Base Base Base Base Base Base
Base Abnormal	





Unique Number : 10941620

Laboratory Sample No.

Lab Number : 06127469

: PCA0086596

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

: 25 Mar 2024 : 26 Mar 2024 Diagnosed : 27 Mar 2024 - Don Baldridge

Kemp Quarries - Pryor Stone - Pryor 1050 E 520 Rd

Pryor, OK US 74361 Contact:

Test Package: MOB 1 (Additional Tests: TBN)

pryor@pryorstone.com T:

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)

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