

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

KEMP QUARRIES / PRYOR STONE [65787] Machine Id 3633

Component

Diesel Engine

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

PETRO CANADA DURON SIIP 15W40 (--- GAL

DIAGNOSIS

RecommendationResample at the next service interval to monitor. (Customer Sample Comment: PM performed.

Engine oil sample 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.

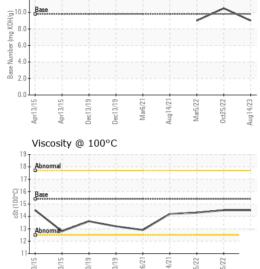
SIS REPORT	cumple riding frend									
TO NE 100-1									<u>-</u>	
STONE [65787]										
AL)	Apr2015	Apr2015	Dec2019	Dec2019	Mar2021	Aug2021	Mar2022	Oct2022	Aug2023	
SAMPLE INFORMATION	method		limit/	base		cu	rrent	t		hi

Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status CONTAMINAT	hrs hrs	Client Info Client Info Client Info Client Info Client Info Client Info WC Method	limit/base >5	PCA0084223 14 Aug 2023 3087 340 Changed NORMAL current <1.0	PCA0049020 25 Oct 2022 2747 332 Changed NORMAL history1 <1.0	PCA0037840 05 Mar 2022 2415 296 Changed NORMAL history2 <1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13	9	13
Chromium	ppm	ASTM D5185m	>20	3	2	4
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	5	2	2
Lead	ppm	ASTM D5185m	>40	<1	2	2
Copper	ppm	ASTM D5185m	>330	<1	<1	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVEC		ام ممالات مص	11.0014/10.000			histow.O
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	current 3	history1 4	nistory2 4
	ppm		0			
Boron		ASTM D5185m	0	3	4	4
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	3 0	4	4
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	3 0 64	4 0 63	4 0 59
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	3 0 64 <1	4 0 63 <1	4 0 59 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	3 0 64 <1 1059	4 0 63 <1 964	4 0 59 <1 1023
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	3 0 64 <1 1059 1223	4 0 63 <1 964 1173	4 0 59 <1 1023 1179
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	3 0 64 <1 1059 1223 1147	4 0 63 <1 964 1173 1080	4 0 59 <1 1023 1179 1127
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 ASTM D5185m	0 0 60 0 1010 1070 1150 1270	3 0 64 <1 1059 1223 1147 1396	4 0 63 <1 964 1173 1080 1308	4 0 59 <1 1023 1179 1127 1247
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 ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	3 0 64 <1 1059 1223 1147 1396 4006	4 0 63 <1 964 1173 1080 1308 3684	4 0 59 <1 1023 1179 1127 1247 2848
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	3 0 64 <1 1059 1223 1147 1396 4006	4 0 63 <1 964 1173 1080 1308 3684 history1	4 0 59 <1 1023 1179 1127 1247 2848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	3 0 64 <1 1059 1223 1147 1396 4006 current 6	4 0 63 <1 964 1173 1080 1308 3684 history1	4 0 59 <1 1023 1179 1127 1247 2848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	3 0 64 <1 1059 1223 1147 1396 4006 current 6	4 0 63 <1 964 1173 1080 1308 3684 history1	4 0 59 <1 1023 1179 1127 1247 2848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	3 0 64 <1 1059 1223 1147 1396 4006 current 6 1	4 0 63 <1 964 1173 1080 1308 3684 history1 4	4 0 59 <1 1023 1179 1127 1247 2848 history2 8 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	3 0 64 <1 1059 1223 1147 1396 4006 current 6 1	4 0 63 <1 964 1173 1080 1308 3684 history1 4 1	4 0 59 <1 1023 1179 1127 1247 2848 history2 8 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	3 0 64 <1 1059 1223 1147 1396 4006 current 6 1 0	4 0 63 <1 964 1173 1080 1308 3684 history1 4 1 1	4 0 59 <1 1023 1179 1127 1247 2848 history2 8 2 2 history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method *ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	3 0 64 <1 1059 1223 1147 1396 4006 current 6 1 0 current 0.3 7.2	4 0 63 <1 964 1173 1080 1308 3684 history1 4 1 1 history1 0.2 7.7	4 0 59 <1 1023 1179 1127 1247 2848 history2 8 2 2 history2 0.2 7.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m method *ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20 >30	3 0 64 <1 1059 1223 1147 1396 4006 current 6 1 0 current 0.3 7.2 18.6	4 0 63 <1 964 1173 1080 1308 3684 history1 4 1 1 0.2 7.7 20.1	4 0 59 <1 1023 1179 1127 1247 2848 history2 8 2 2 history2 0.2 7.0 18.4



Base Number

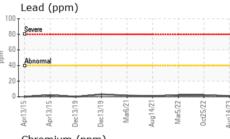
OIL ANALYSIS REPORT

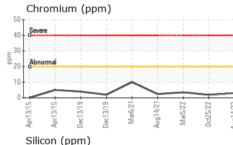


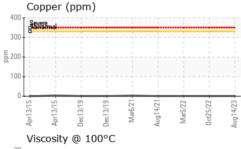
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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 PROPE	RTIFS	method	limit/base	current	historv1	historv2

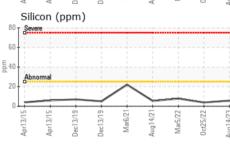
I LOID I HOI	LITTLO					
Visc @ 100°C	cSt	ASTM D445	15.4	14.5	14.5	14.3

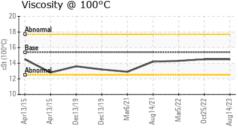
	GF	RAPI	HS							
21	Iro	n (pp	m)							
	Seve	ere								
E 15	50-									Ε
E 15	00 - Abn	ormal		-					-	mdd
	50-									
	0 15	15	19	119	12/	12/	722	22	 } 	
	Apr13/15	Apr13/15	Dec13/19	Dec13/19	Mar6/21	Aug14/21	Mar5/22	0ct25/22	Aug14/23	
		minu	m (pį	om)						
	Seve	ere								
ε:	30 - Abn	ormal								8
mdd	20									
	10									

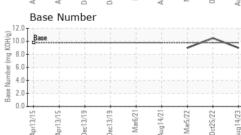














Laboratory Sample No. Lab Number **Unique Number**

: PCA0084223 : 05935208 : 10620479

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

: 25 Aug 2023 : 28 Aug 2023

Diagnostician : Don Baldridge

Test Package : MOB 1 (Additional Tests: TBN) 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.

Kemp Quarries - Pryor Stone - Pryor

1050 E 520 Rd Pryor, OK US 74361 Contact:

pryor@pryorstone.com

T: F:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)