

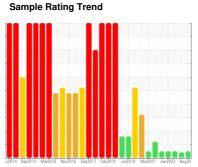
OIL ANALYSIS REPORT



KEMP QUARRIES / RIVER VALLEY BACKBONE **WL088**

Component **Rear Differential**

MOBIL MOBILTRANS HD 50 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Hour meter 6146)

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

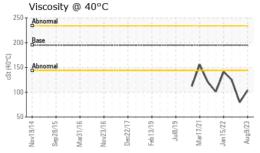
Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFOR	MATION		limit/base	017 Feb2019 Jul2019 Mar2021 Ja		history2		
	IMATION		iiiiii/base	current	history1			
Sample Number		Client Info		PCA0085867	PCA0070231	PCA0049262		
Sample Date		Client Info		09 Aug 2023	14 Nov 2022	17 Feb 2022		
Machine Age	hrs	Client Info		6146	5802	5321		
Oil Age	hrs	Client Info		300	5802	2612		
Oil Changed		Client Info		Not Changd	Changed	Not Changd		
Sample Status				NORMAL	ATTENTION	NORMAL		
WEAR METAL	_S	method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>500	17	43	36		
Chromium	ppm	ASTM D5185m	>3	<1	1	1		
Nickel	ppm	ASTM D5185m	>3	0	0	<1		
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1		
Silver	ppm	ASTM D5185m	>2	0	0	0		
Aluminum	ppm	ASTM D5185m	>30	2	4	4		
Lead	ppm	ASTM D5185m	>13	<1	<1	1		
Copper	ppm	ASTM D5185m	>103	2	5	3		
Tin	ppm	ASTM D5185m	>5	0	0	<1		
Antimony	ppm	ASTM D5185m	>5			<1		
Vanadium	ppm	ASTM D5185m		0	0	0		
Cadmium	ppm	ASTM D5185m		0	0	<1		
ADDITIVES		method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m		0	2	1		
Barium	ppm	ASTM D5185m		0	0	0		
Molybdenum	ppm	ASTM D5185m		<1	3	2		
Manganese	ppm	ASTM D5185m		0	<1	<1		
Magnesium	ppm	ASTM D5185m		10	26	31		
Calcium	ppm	ASTM D5185m		1419	739	2243		
Phosphorus	ppm	ASTM D5185m		653	476	889		
Zinc	ppm	ASTM D5185m		817	623	1148		
Sulfur	ppm	ASTM D5185m		2692	2052	3838		
CONTAMINAN	NTS	method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>100	10	12	12		
Sodium	ppm	ASTM D5185m		0	0	2		
Potassium	ppm	ASTM D5185m	>20	<1	2	2		
VISUAL		method	limit/base	current	history1	history2		
White Metal	scalar	*Visual	NONE	NONE	MODER	LIGHT		
Yellow Metal	scalar	*Visual	NONE	MODER	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	>.2	NEG	NEG	NEG		
Free Water	scalar	*Visual		NEG	NEG	NEG		



OIL ANALYSIS REPORT





	GRAF	PHS																		
15000 -	Iron (p	pm)								30		ad (p	pm)							
13000										25	0-	ere								
10000	1									20		٨								
통 5000 -	\mathbf{A}			Ш			Ш			튭 15 10	1	ormal			-I	$\overline{}$				- 1 -1 -
0000	Severe									5	1		1		1		1	1		
0	A Section at	16	16	117-	61,	6	12/	22	23	0	41	15	9	16 A		- 61/	181	12/	22	23
	Nov19/14 Sep28/15	Mar31/16	Nov23/16	Dec22/17	Feb13/19	Jul8/19	Mar17/21	Jan15/22	Aug9/23		Nov19/14	Sep28/15	Mar31/16	Nov23/16	Dec22/17	Feb13/19	Jul8/19	Mar17/21	Jan15/22	Aug9/23
120	Alumin	um (į	opm))						7.0	Ch	romi	um (ppm)					
120 100										70 60										
80-	1									50 _ 40										
摄 60 - 40 -	Severe									트 ⁴⁰										
20-	Abnormal						^			20 10	1	ere								
0	115	→ 9L/	-Je	¥-11	61/	₩	12/	757	23	0	1 1	15	116	116	17	- 6L/	-61/	12/	22	23
	Nov19/14 Sep28/15	Mar31/16	Nov23/16	Dec22/1	Feb13/19	Jul8/19	Mar17/2	Jan15/22	Aug9/23		Nov19/14	Sep28/15	Mar31/16	Nov23/16	Dec22/1	Feb13/19	Jul8/19	Mar17/21	Jan15/22	Aug9/23
350 -	Copper	(ppr	n)							1400	Sili	icon	(ppm	1)						
300-	1									1200	-1									
250 - = 200 -	Severe									1000 = 800	1.0									
된 200 -	Aonormal									E 600	1.0									
100 - 50 -	V	7		/	1		Λ			400 200	- T	ere								
01	715	91/	91/		-61/	9 6L/8Inf	12/	722	123	0	1	V15	116	116		119	Jul8/19	12/	/22	123
	Nov19/14 Sep28/15	Mar31/16	Nov23/16	Dec22/17	Feb13/19	Jul	Mar17/21	Jan15/22	Aug9/23		Nov19/14	Sep28/15	Mar31/16	Nov23/16	Dec22/17	Feb13/19	Jul	Mar17/21	Jan15/22	Aug9/23
250 _T	Viscosit	у @	40°C	;						3000		ditive	es							
200	Abnormal Base									2500	7		calcium phospho	orus 🔥			^	^		
										2000	-	******	zinc	1	4	N		~ \	Λ	
St (40°C)	Abnormal						\wedge		-	톱 1500 1000	27				V		*		V	V
100-									V	500					7	-	41.00		1	1
50	Nov19/14	Mar31/16	Nov23/16	Dec22/17	Feb13/19	- 61/8lnC	Mar17/21	Jan15/22	Aug9/23	0	Nov19/14	Sep28/15	Mar31/16	Nov23/16 -	Dec22/17	8/18	Jul8/19	Mar17/21	Jan15/22	Aug9/23
	ov1	ar3	30/2	ec2.	e 1	Ħ	lar]	all	Aug		lvo 1	sp2	ar3	0.02	ec2	Feb13/19	Jin	lar.	alle	Aug



Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10604505 Test Package : MOB 1

: 05924558

: PCA0085867

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Aug 2023 Diagnosed : 16 Aug 2023

Diagnostician : Sean Felton

Kemp Quarries - River Valley - Backbone

5600 S Hwy 253 Huntington, AR UŠ 72940

Contact:

T:

F:

backbone@rivervalleyquarries.com

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)