



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
KEMP QUARRIES / RIVER VALLEY BACKBONE

Machine Id
WL079

Component
Front Differential

Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)

RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0084795	PCA0085846	PCA0085853
Sample Date		Client Info		28 Dec 2023	13 Oct 2023	09 Aug 2023
Machine Age	hrs	Client Info		48609	48226	47885
Oil Age	hrs	Client Info		383	341	900
Filter Age	hrs	Client Info		0	0	900
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

High concentration of visible metal present. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>500	34	53	33
Chromium	ppm	ASTM D5185m	>3	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	2	2	1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	2	3
Lead	ppm	ASTM D5185m	>13	▲ 34	● 88	● 47
Copper	ppm	ASTM D5185m	>103	▲ 160	● 451	● 203
Tin	ppm	ASTM D5185m	>5	▲ 11	● 29	● 14
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	▲ HEAVY	▲ HEAVY	▲ HEAVY

CONTAMINATION

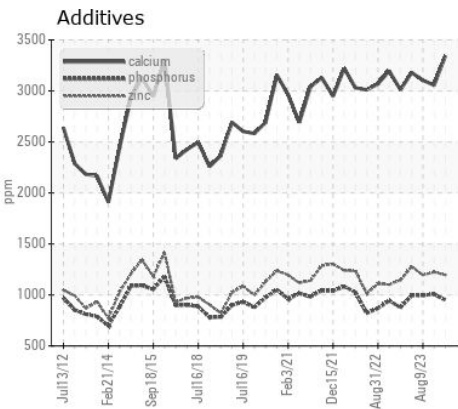
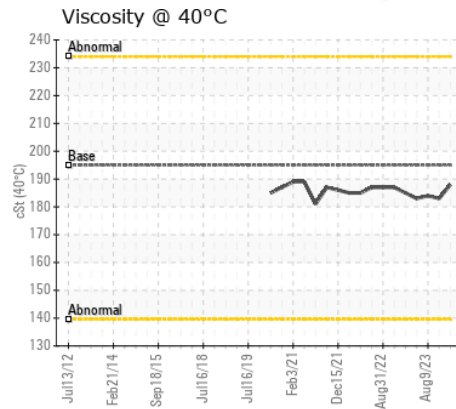
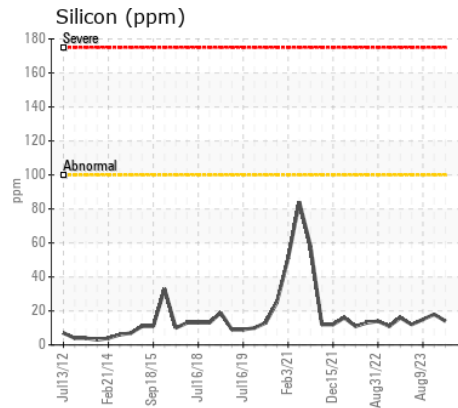
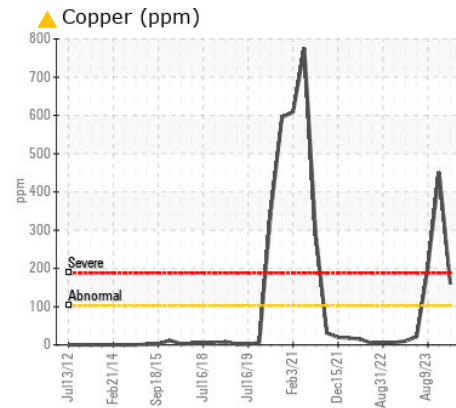
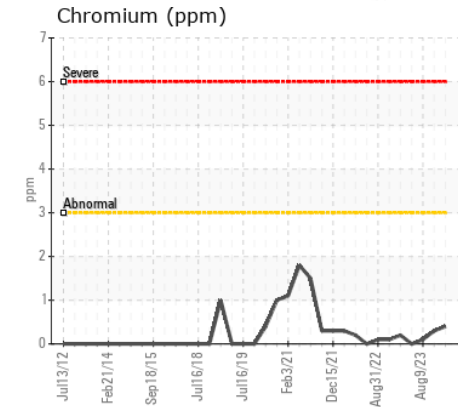
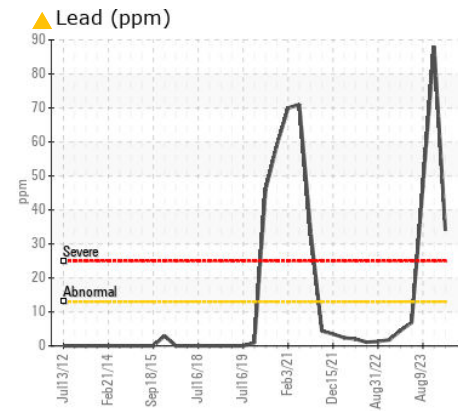
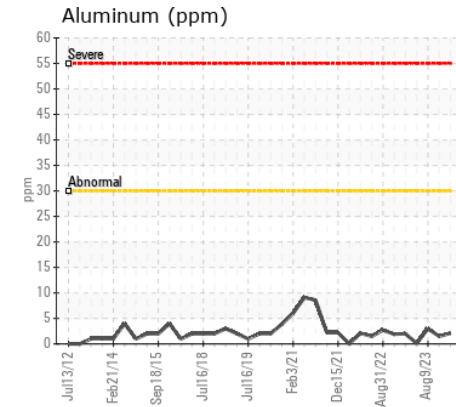
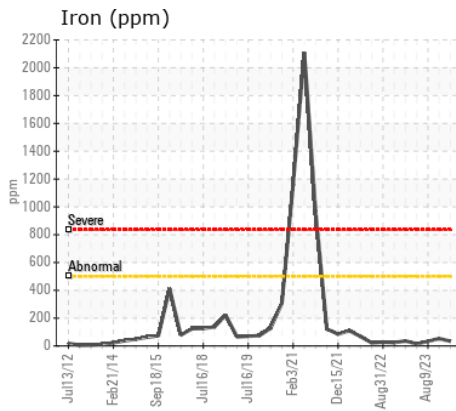
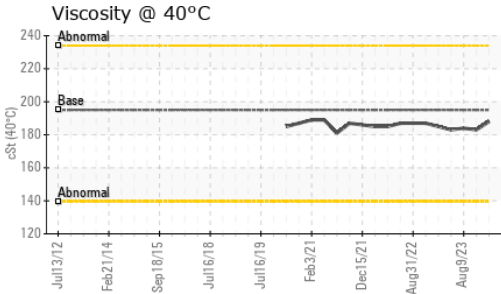
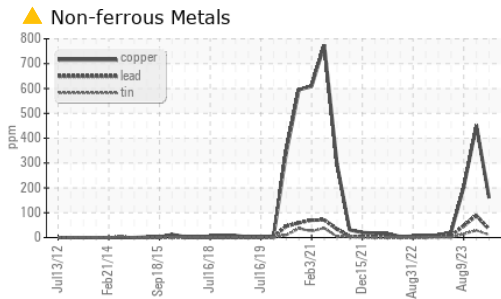
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	14	18	15
Potassium	ppm	ASTM D5185m	>20	2	2	1
Water		WC Method	>.2	NEG	NEG	NEG
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		0	9	0
Molybdenum	ppm	ASTM D5185m		2	2	1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		20	23	24
Calcium	ppm	ASTM D5185m		3343	3056	3104
Phosphorus	ppm	ASTM D5185m		951	1007	996
Zinc	ppm	ASTM D5185m		1195	1224	1195
Sulfur	ppm	ASTM D5185m		6698	7503	6831
Visc @ 40°C	cSt	ASTM D445	195	188	183	184



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0084795 **Received** : 08 Jan 2024
Lab Number : 06054439 **Diagnosed** : 10 Jan 2024
Unique Number : 10820388 **Diagnostician** : Jonathan Hester
Test Package : MOB 1

Kemp Quarries - River Valley - Backbone
 5600 S Hwy 253
 Huntington, AR
 US 72940
 Contact:
 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)

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F: