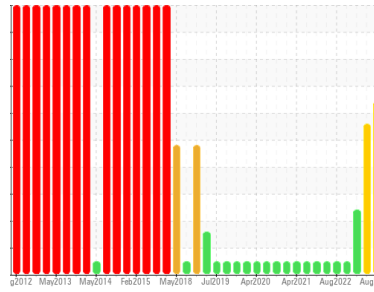


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / MUSKOGEE SAND
Machine Id
WL056
Component
Front Differential
Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)

Sample Rating Trend



WATER



DIAGNOSIS

▲ Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

▲ Wear

Bearing and/or bushing wear is indicated.

▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate concentration of water present in the oil.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0070433	PCA0087140	PCA0087167
Sample Date	Client Info		10 Aug 2023	06 Jun 2023	28 Feb 2023
Machine Age	hrs	Client Info	33775	33310	32585
Oil Age	hrs	Client Info	1190	725	1760
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	366	388	76
Chromium	ppm	ASTM D5185m >3	1	2	<1
Nickel	ppm	ASTM D5185m >3	1	<1	0
Titanium	ppm	ASTM D5185m >2	2	2	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >30	▲ 39	▲ 33	11
Lead	ppm	ASTM D5185m >13	▲ 13	8	8
Copper	ppm	ASTM D5185m >103	▲ 133	▲ 100	38
Tin	ppm	ASTM D5185m >5	▲ 8	▲ 8	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<1	3	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	<1	<1
Manganese	ppm	ASTM D5185m	5	5	1
Magnesium	ppm	ASTM D5185m	21	22	15
Calcium	ppm	ASTM D5185m	3016	3237	2323
Phosphorus	ppm	ASTM D5185m	970	976	968
Zinc	ppm	ASTM D5185m	1183	1255	1157
Sulfur	ppm	ASTM D5185m	4807	6356	6015

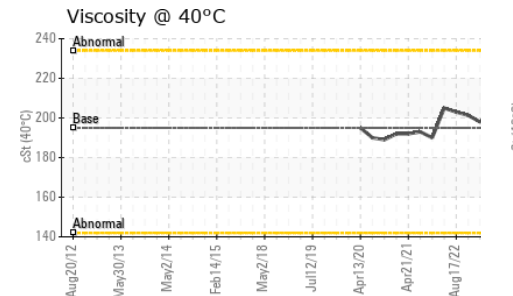
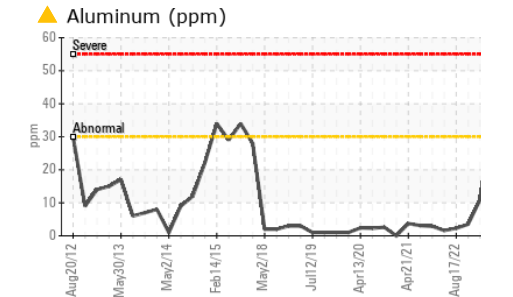
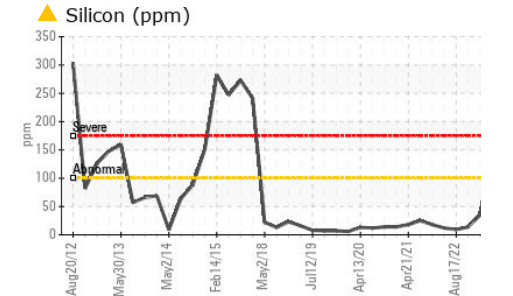
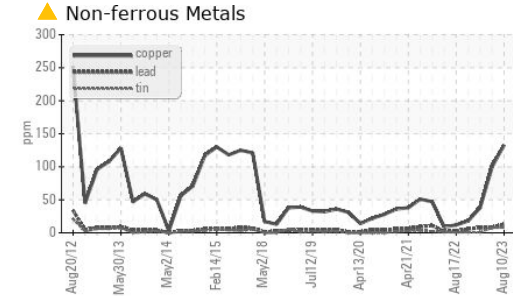
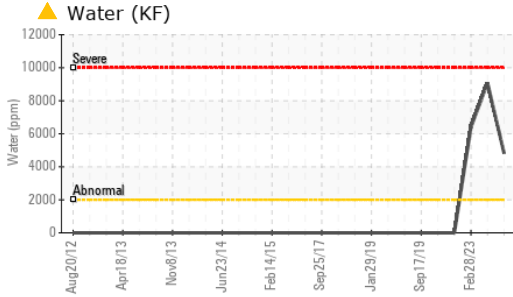
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >100	▲ 158	▲ 130	35
Sodium	ppm	ASTM D5185m	8	6	2
Potassium	ppm	ASTM D5185m >20	10	8	4
Water	%	ASTM D6304 >.2	▲ 0.482	▲ 0.908	▲ 0.640
ppm Water	ppm	ASTM D6304 >2000	▲ 4820	▲ 9080	▲ 6400

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual NONE	NONE	LIGHT	LIGHT
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	MODER	MODER
Debris	scalar	*Visual NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	NORML	▲ MILKY
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >.2	0.2%	NEG	▲ 0.2%
Free Water	scalar	*Visual	NEG	NEG	NEG

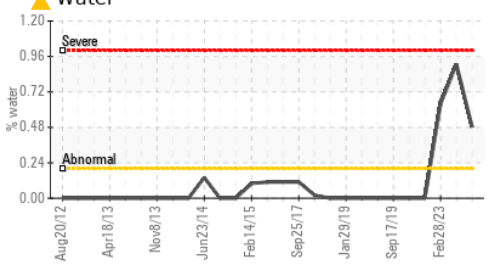
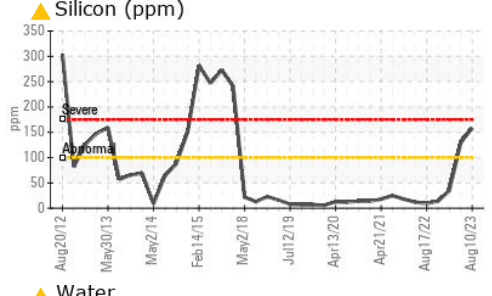
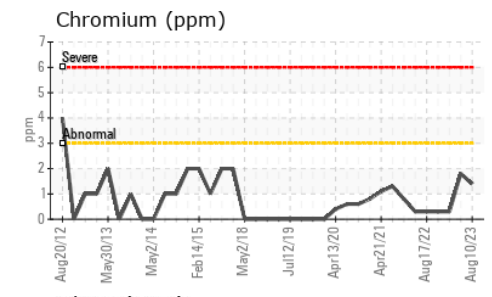
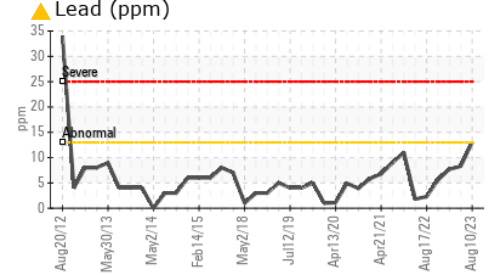
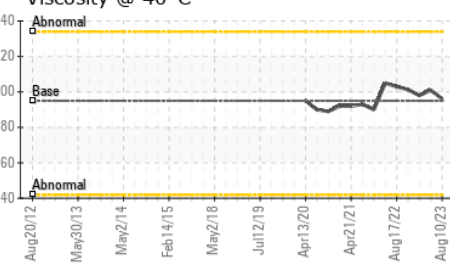
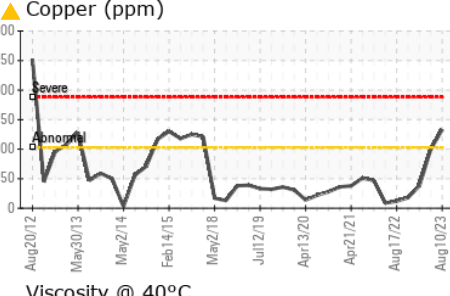
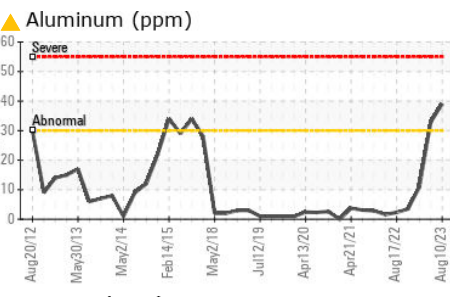
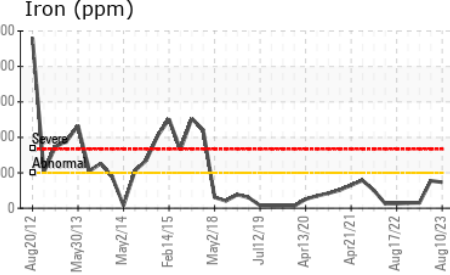
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	195	196	201	198

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0070433 **Received** : 04 Oct 2023
Lab Number : **05969915** **Diagnosed** : 09 Oct 2023
Unique Number : 10681865 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: KF)

Kemp Quarries - Muskogee Sand
 3395 W 50th St N
 Porter, OK
 US 74454
 Contact: MUSCOGEE NOTIFICATIONS
 muskogee@muskogeessand.com
 T:
 F:

Certificate L2367
 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)