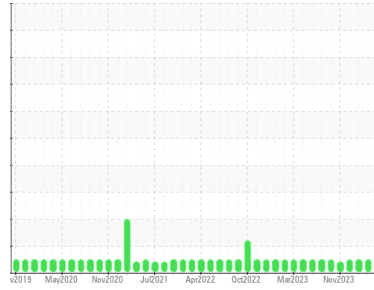




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

Paul G. Blazer

Machine Id

[Paul G. Blazer] Oil - Port Genset

Component

Port Genset

Fluid

DIESEL ENGINE OIL SAE 15W40 (8 GAL)

DIAGNOSIS

Recommendation

(Customer Sample Comment: One gallon of makeup oil added every 48 hours. Kirk James)

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0719259	WC0719263	WC0845848
Sample Date	Client Info			03 Apr 2024	20 Mar 2024	21 Feb 2024
Machine Age	hrs	Client Info		17538	17201	17043
Oil Age	hrs	Client Info		500	158	500
Oil Changed	Client Info			Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<1.0	<1.0	<1.0
Water	WC Method	>0.1		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	7	3	8
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	2	2	2
Lead	ppm	ASTM D5185m	>17	0	0	2
Copper	ppm	ASTM D5185m	>70	2	1	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	36	47	50
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	74	69	89
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	1719	1520	1905
Calcium	ppm	ASTM D5185m	3000	1464	1354	1699
Phosphorus	ppm	ASTM D5185m	1150	1150	1053	1275
Zinc	ppm	ASTM D5185m	1350	1437	1270	1627
Sulfur	ppm	ASTM D5185m	4250	3893	3701	3774

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	3	4
Sodium	ppm	ASTM D5185m	>158	2	1	1
Potassium	ppm	ASTM D5185m	>20	<1	0	0

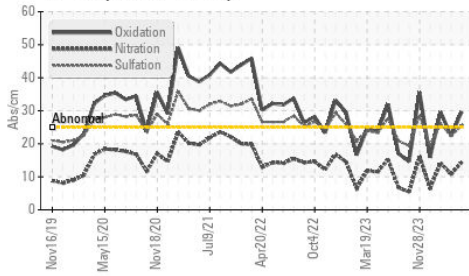
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	14.4	10.8	14.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.5	22.4	26.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.6	22.4	29.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	12.63	12.66	13.24

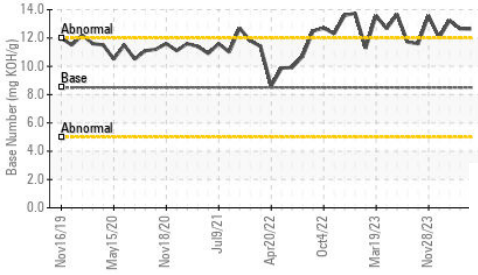


OIL ANALYSIS REPORT

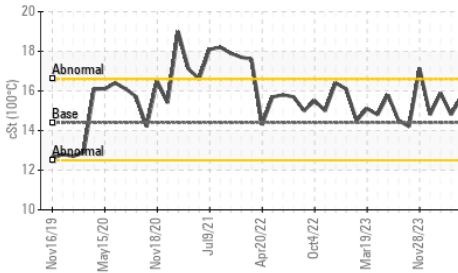
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

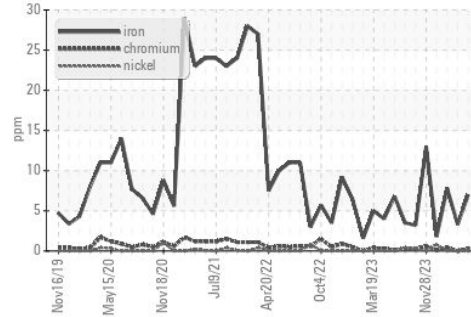


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

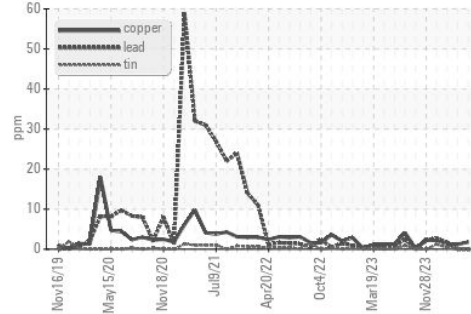
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	15.7	14.8

GRAPHS

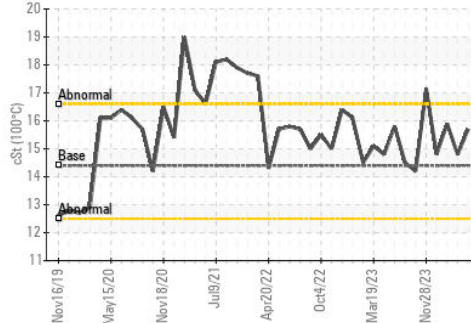
Ferrous Alloys



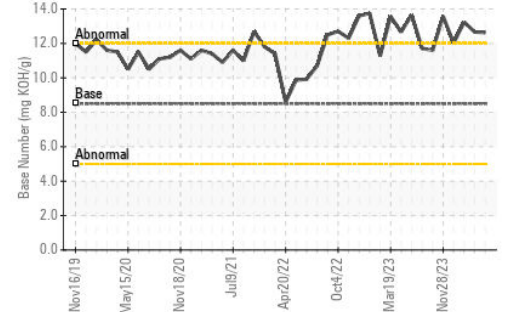
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0719259
 Lab Number : 06140130
 Unique Number : 10964938
 Test Package : IND 2

Received : 05 Apr 2024
 Tested : 08 Apr 2024
 Diagnosed : 09 Apr 2024 - Sean Felton

MARATHON PETROLEUM CO.
 101 12TH ST
 CATLETTSBURG, KY
 US 41169

Contact: CORY GUMBERT
 cagumbert@marathonpetroleum.com
 T: (606)585-3950

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)

F: x: