



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
73EY-8C
Component
Gearbox
Fluid
ROYAL PURPLE SYNERGY 90/150 (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

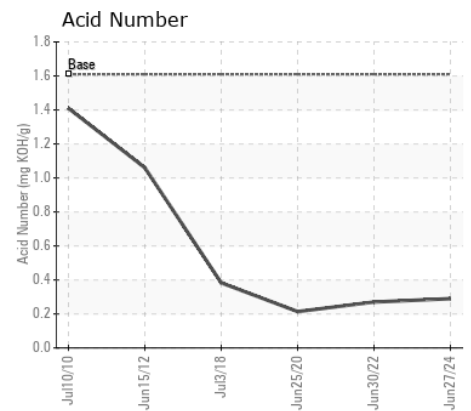
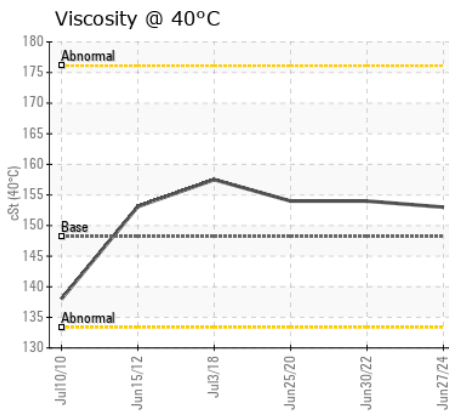
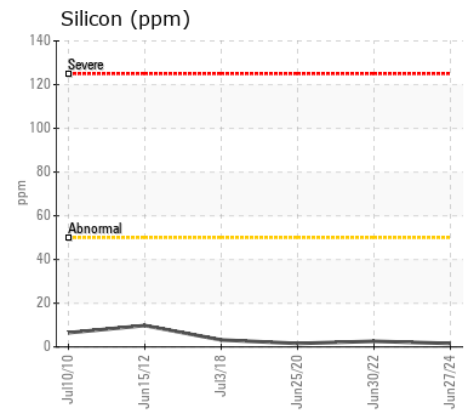
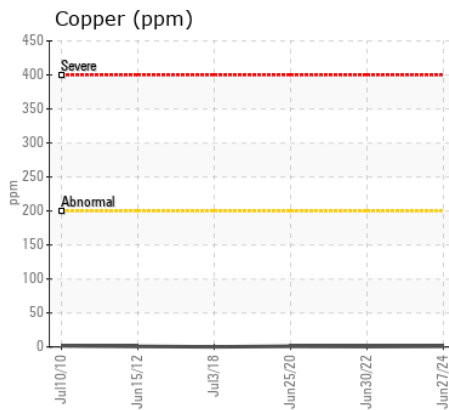
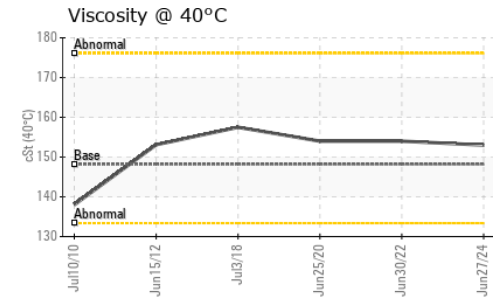
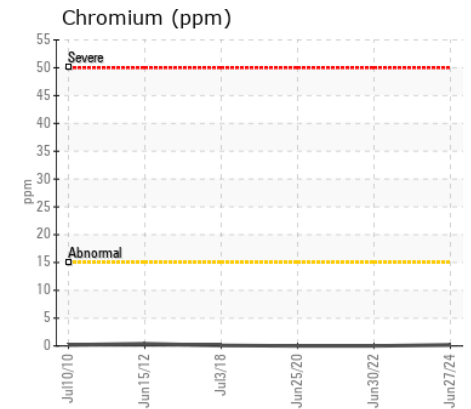
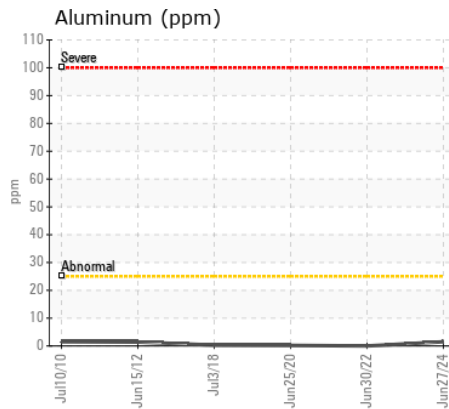
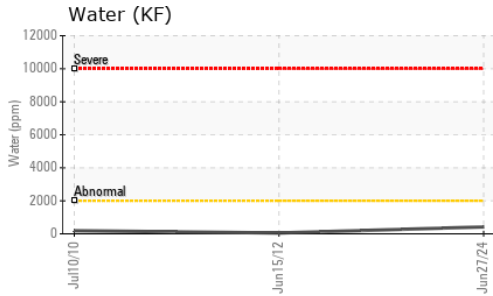
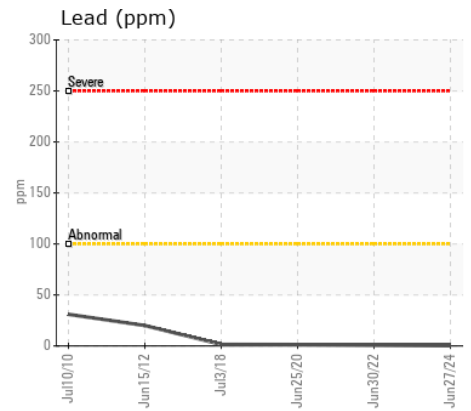
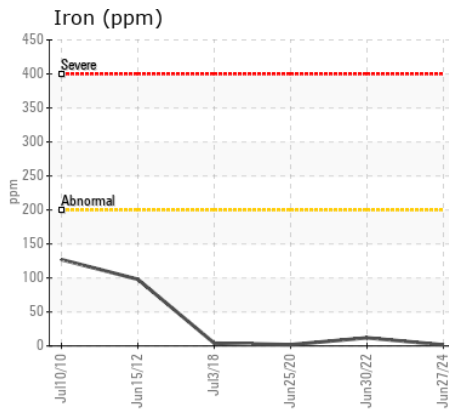
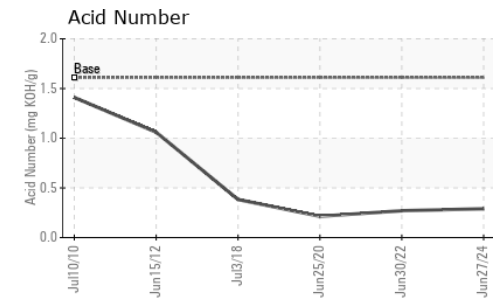
CONTAMINATION

Free water present.

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HPL0004761	HPL0000515	HPL010611
Sample Date		Client Info		27 Jun 2024	30 Jun 2022	25 Jun 2020
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>200	2	12	2
Chromium	ppm	ASTM D5185m	>15	<1	0	0
Nickel	ppm	ASTM D5185m	>15	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	0	<1
Lead	ppm	ASTM D5185m	>100	<1	<1	1
Copper	ppm	ASTM D5185m	>200	1	<1	1
Tin	ppm	ASTM D5185m	>25	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>50	2	3	2
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water	%	ASTM D6304	>0.2	0.042	---	---
ppm Water	ppm	ASTM D6304	>2000	420	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
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	0.2%	NEG	NEG
Sodium	ppm	ASTM D5185m		0	0	<1
Boron	ppm	ASTM D5185m		0	1	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	<1	1
Calcium	ppm	ASTM D5185m		0	15	100
Phosphorus	ppm	ASTM D5185m	200	9	19	42
Zinc	ppm	ASTM D5185m		0	2	2
Sulfur	ppm	ASTM D5185m		20194	19560	19550
Acid Number (AN)	mg KOH/g	ASTM D8045	1.61	0.29	0.27	0.214
Visc @ 40°C	cSt	ASTM D445	148.2	153	154	154



Certificate L2367

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

Sample No. : HPL0004761

Lab Number : 06228091

Unique Number : 11111584

Test Package : MOB 2 (Additional Tests: KF)

Received : 03 Jul 2024

Tested : 05 Jul 2024

Diagnosed : 07 Jul 2024 - Don Baldrige

MARATHON PETROLEUM CO.

IL. REFINING DIVISION, 400 S MARATHON AVE

ROBINSON, IL

US 62454

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F: x:

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)