

OIL ANALYSIS REPORT

Area Tampa Machine Id [Tampa] Oil - Port Reduction Gear Component

Port Reduction Gear

MOBIL DELVAC 1640 (28 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



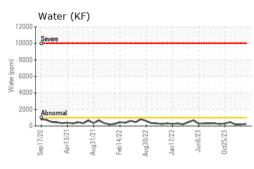


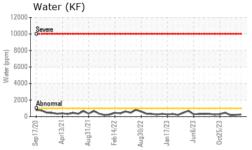
Sample Rating Trend

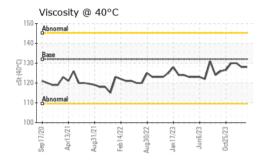
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0805287	WC0845932	WC0846089
Sample Date		Client Info		14 Feb 2024	17 Jan 2024	20 Dec 2023
Machine Age	hrs	Client Info		22046	4157	20634
Oil Age	hrs	Client Info		2266	294	858
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	7	7	5
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	2
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	10	9	9
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 11	history1 18	history2 12
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	11	18	12
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	11 0	18 0	12 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31	18 0 34	12 0 34
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31 0	18 0 34 <1	12 0 34 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31 0 159	18 0 34 <1 176	12 0 34 0 159
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31 0 159 2867 602 658	18 0 34 <1 176 2847 665 725	12 0 34 0 159 2819 557 637
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31 0 159 2867 602	18 0 34 <1 176 2847 665	12 0 34 0 159 2819 557
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31 0 159 2867 602 658	18 0 34 <1 176 2847 665 725	12 0 34 0 159 2819 557 637
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		11 0 31 0 159 2867 602 658 5837	18 0 34 <1 176 2847 665 725 6604	12 0 34 0 159 2819 557 637 5506
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 31 0 159 2867 602 658 5837 current	18 0 34 <1 176 2847 665 725 6604 history1 5 4	12 0 34 0 159 2819 557 637 5506 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	11 0 31 0 159 2867 602 658 5837 current 4	18 0 34 <1 176 2847 665 725 6604 history1 5	12 0 34 0 159 2819 557 637 5506 history2 5 4 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >50	11 0 31 0 159 2867 602 658 5837 current 4 4	18 0 34 <1 176 2847 665 725 6604 history1 5 4	12 0 34 0 159 2819 557 637 5506 history2 5 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >50 >20	11 0 31 0 159 2867 602 658 5837 <u>current</u> 4 4 0	18 0 34 <1 176 2847 665 725 6604 history1 5 4 3	12 0 34 0 159 2819 557 637 5506 history2 5 4 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >50 >20 >0.1	11 0 31 0 159 2867 602 658 5837 <i>current</i> 4 4 0 0 0.025	18 0 34 <1 176 2847 665 725 6604 history1 5 4 3 0.019	12 0 34 0 159 2819 557 637 5506 history2 5 4 0 0 0.017



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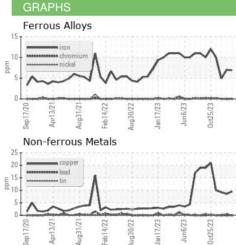


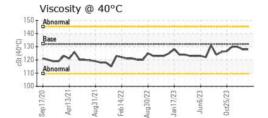
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	132	128	128	130
SAMPLE IMAGES	S	method	limit/base	current	history1	history2

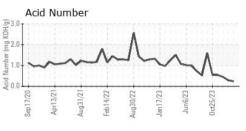
Color



Bottom







MARATHON PETROLEUM CO. Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0805287 Received : 27 Feb 2024 101 12TH ST Lab Number : 06101723 Tested : 28 Feb 2024 CATLETTSBURG, KY : 29 Feb 2024 - Don Baldridge Unique Number : 10899953 US 41169 Diagnosed Test Package : IND 2 (Additional Tests: KF) Contact: CORY GUMBERT Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. cagumbert@marathonpetroleum.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (606)585-3950 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x: