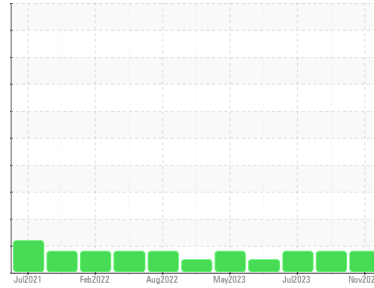




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
PONCA CITY
 Machine Id
Unit 03 DB130103E

Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON MONOGRADE HD 40W (350 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0100322	PCA0045787	PCA0045785
Sample Date	Client Info		07 Nov 2023	01 Aug 2023	06 Jul 2023
Machine Age	hrs	Client Info	1253	1138	1122
Oil Age	hrs	Client Info	1253	1138	1122
Oil Changed	Client Info		N/A	Not Changd	Not Changd
Sample Status			MARGINAL	MARGINAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	3	1	6
Chromium	ppm	ASTM D5185m	>4	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>9	2	3	3
Lead	ppm	ASTM D5185m	>30	<1	2	2
Copper	ppm	ASTM D5185m	>35	<1	1	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<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		1	1	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	2	2
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		899	903	896
Calcium	ppm	ASTM D5185m		1092	1228	1097
Phosphorus	ppm	ASTM D5185m		1125	1148	1094
Zinc	ppm	ASTM D5185m		1324	1322	1311
Sulfur	ppm	ASTM D5185m		3274	3258	3866

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	4	3	3
Sodium	ppm	ASTM D5185m		2	0	2
Potassium	ppm	ASTM D5185m	>20	1	<1	2
Fuel	%	ASTM D3524	>4.0	▲ 2.0	▲ 2.3	▲ 2.3

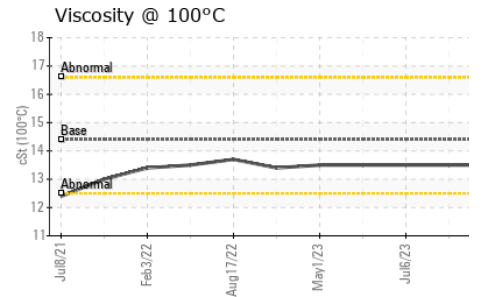
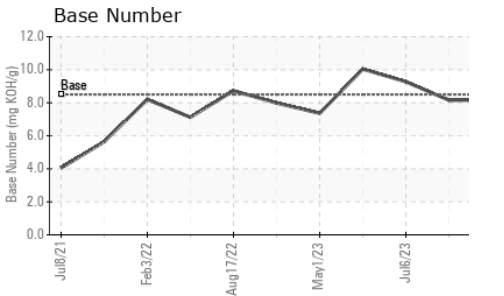
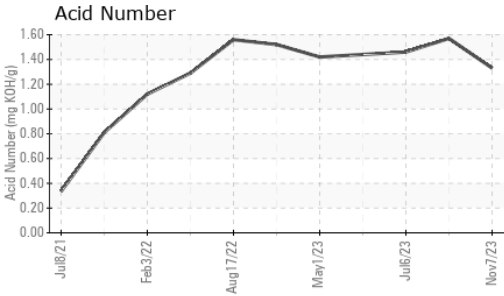
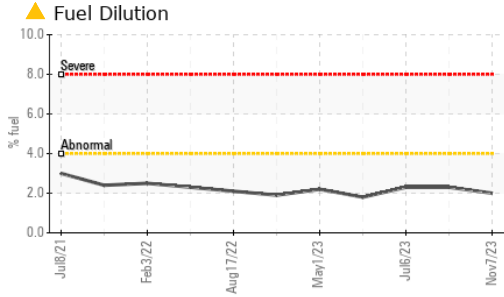
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	4.4	4.4	4.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	13.4	13.1	13.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.4	7.3	7.5
Acid Number (AN)	mg KOH/g	ASTM D8045		1.33	1.57	1.46
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.18	8.15	9.27

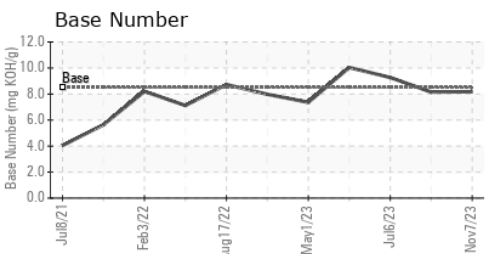
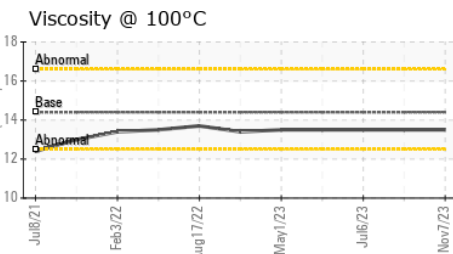
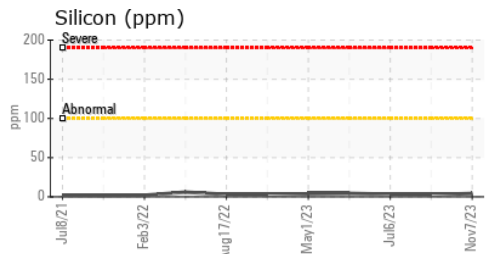
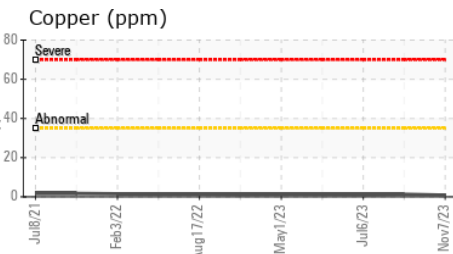
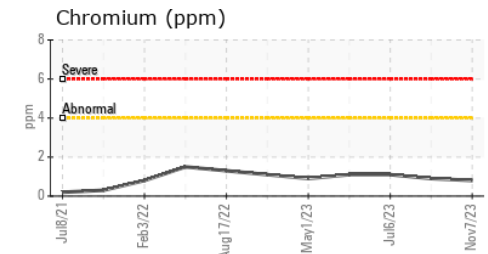
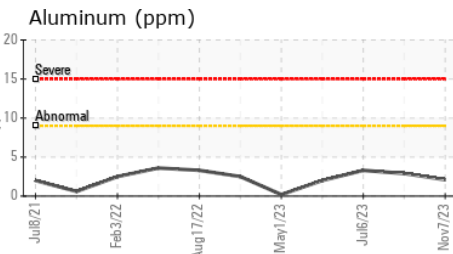
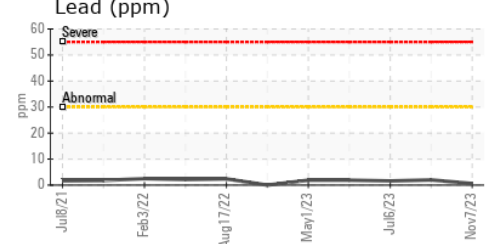
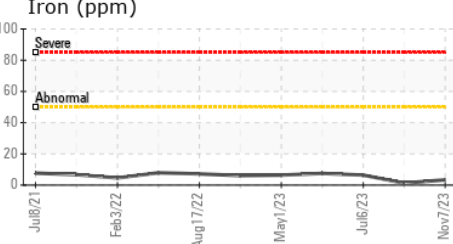
OIL ANALYSIS REPORT



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	13.5	13.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0100322 **Received** : 20 Nov 2023
Lab Number : 06012635 **Diagnosed** : 22 Nov 2023
Unique Number : 10751779 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

Magellan Midstream LP - Ponca City
 3990 South Union Street
 Ponca City, OK
 US 74601
 Contact: Jake Daniel
 Jacob.Daniel@magellanlp.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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