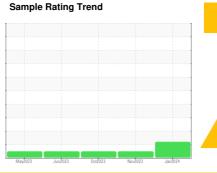


OIL ANALYSIS REPORT

(N/A) Walgreens - Yard Horse [Walgreens - Yard Horse] 136A82001

Diesel Engine

PETRO CANADA DURON UHP E6 10W40 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

Light fuel dilution occurring.

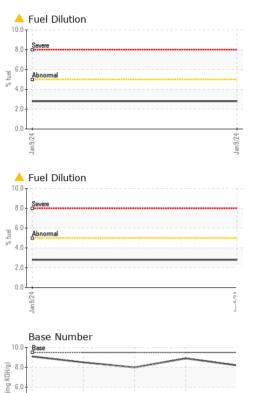
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sample Number Client Info PCA0105452 PCA0105492 PCA0105492	II GAL)		May2023	Jun2023	Oct2023 Nov2023	Jan2024	
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 12067 11641 11339 Oil Age hrs Client Info 426 1326 1004 Sample Status NoRMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL CONTAMINATION method Imit/base current history1 history2 Water WC Method NEG NEG NEG NEG NEG Glycol WC Method NEG NEG NEG NEG WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM 05185m >20 <1 <1 <1 <1 Nickel ppm ASTM 05185m >20 <1 <1 <1 Silver ppm ASTM 05185m >20 <1 <1 <1 Silver ppm ASTM 05185m >20 2 1 3 Lead ppm ASTM 05185m >20 2 1 3 Lead ppm ASTM 05185m >30 <1 <1 2 Tin ppm ASTM 05185m >30 <1 <1 2 Tin ppm ASTM 05185m >15 <1 0 0 ADDITIVES method imit/base current history1 history2 Boron ppm ASTM 05185m >0 0 <1 ADDITIVES method imit/base current history1 history2 Barium ppm ASTM 05185m 0 0 0 0 ADDITIVES method imit/base current history1 history2 Barium ppm ASTM 05185m 0 0 0 0 ADDITIVES method imit/base current history1 history2 Barium ppm ASTM 05185m 0 0 0 0 ADDITIVES method imit/base current history1 history2 Barium ppm ASTM 05185m 0 0 0 0 ADDITIVES method imit/base current history1 history2 Barium ppm ASTM 05185m 20 0 0 0 ASTM 05185m 20 0 0 0 0 ADDITIVES method imit/base current history1 history2 Silicon ppm ASTM 05185m 20 0 0 0 CONTAMINANTS method imit/base current history1 history2 Soldium ppm ASTM 05185m 20 0 0 0 0 NEG NE	Sample Number		Client Info		PCA0105452	PCA0105392	PCA0105413
Oil Age hrs Client Info 426 1326 1004 Oil Changed Sample Status Client Info Not Changed ABNORMAL Not Changed NORMAL Not Changed NORMAL Not Changed NORMAL Not Changed NORMAL N	Sample Date		Client Info		09 Jan 2024	27 Nov 2023	19 Oct 2023
Oil Changed Sample Status Client Info Not Changd ABNORMAL NORMAL Not Changed NORMAL NORMAL Not Changed NORMAL NORMAL Not Changed NORMAL NORMAL Not Changed NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL	Machine Age	hrs	Client Info		12067	11641	11339
ABNORMAL NORMAL NORMAL	Oil Age	hrs	Client Info		426	1326	1004
CONTAMINATION method limit/base current history1 history2 Water WC Method NEG NEG NEG NEG Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 7 2 8 Chromium ppm ASTM D5185m >20 <1	Oil Changed		Client Info		Not Changd	Changed	Not Changd
Water WC Method >0.2 NEG A NEG NEG A A Lead Popm ASTM D5185m 20 0 1 1 1 1 <td>Sample Status</td> <td></td> <td></td> <td></td> <td>ABNORMAL</td> <td>NORMAL</td> <td>NORMAL</td>	Sample Status				ABNORMAL	NORMAL	NORMAL
Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 7 2 8 Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 2 <1 3 Silver ppm ASTM D5185m >3 <1 0 0 Aluminum ppm ASTM D5185m >20 2 1 3 Aluminum ppm ASTM D5185m >20 2 1 3 Lead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >40 0 0 0 Lead ppm ASTM D5185m >15 <1 0 0 0 Copper ppm ASTM D5185m 0 0 0 <1 <t< td=""><td>CONTAMINAT</td><td>ION</td><td>method</td><td>limit/base</td><td>current</td><td>history1</td><td>history2</td></t<>	CONTAMINAT	ION	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 2 <1	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	7	2	8
Description	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>4	2	<1	3
Aluminum ppm ASTM D5185m >20 2 1 3 Lead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >330 <1	Titanium	ppm	ASTM D5185m		0	0	<1
Lead ppm ASTM D5185m >40 0 0 0 Copper ppm ASTM D5185m >330 <1 <1 2 Tin ppm ASTM D5185m >15 <1 0 0 Vanadium ppm ASTM D5185m 0 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 <1 Boron ppm ASTM D5185m 0 7 4 10 Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 0 906 870 875 Calcium ppm ASTM D5185m 20 906 870 875 Zinc ppm ASTM D5185m 750 1023 926	Silver	ppm	ASTM D5185m	>3	<1	0	0
Copper ppm ASTM D5185m >330 <1 <1 2 Tin ppm ASTM D5185m >15 <1	Aluminum	ppm	ASTM D5185m	>20	2	1	3
Tin ppm ASTM D5185m >15 <1 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 7 4 10 Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 80 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 2 1 3 Sodium ppm ASTM D5185m 20 2 1 3 Fuel % ASTM D5185m 20 2 1 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/:mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Coxidation Abs/:mm *ASTM D7415 >30 18.3 17.3 18.7	Lead	ppm	ASTM D5185m	>40	0	0	0
Vanadium ppm ASTM D5185m 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 7 4 10 Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 80 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 2400 993 1017 1037 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 <t< td=""><td>Copper</td><td>ppm</td><td>ASTM D5185m</td><td>>330</td><td><1</td><td><1</td><td>2</td></t<>	Copper	ppm	ASTM D5185m	>330	<1	<1	2
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 7 4 10 Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>15	<1	0	0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 7 4 10 Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 <1	Vanadium	ppm	ASTM D5185m		0	0	<1
Boron ppm ASTM D5185m 0 7 4 10 Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 80 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 2 0 Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m <td>ADDITIVES</td> <td></td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 56 58 59 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 80 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20	Boron	ppm	ASTM D5185m	0	7	4	10
Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 80 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m	Barium	ppm	ASTM D5185m	0	0	2	0
Magnesium ppm ASTM D5185m 80 906 870 875 Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m 2 0 0 0 Potassium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D584m >5	Molybdenum	ppm	ASTM D5185m	0	56	58	59
Calcium ppm ASTM D5185m 2400 993 1017 1037 Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m 20 2 1 3 Fuel % ASTM D5185m >20 2 0 1 0 Soot % % *ASTM D7844 >3	Manganese	ppm	ASTM D5185m	0	<1	0	0
Phosphorus ppm ASTM D5185m 750 1023 926 955 Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D5185m >20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0	Magnesium	ppm	ASTM D5185m	80	906	870	875
Zinc ppm ASTM D5185m 840 1234 1146 1205 Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m 20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0	Calcium	ppm	ASTM D5185m	2400	993	1017	1037
Sulfur ppm ASTM D5185m 2130 2980 3205 3088 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0	Phosphorus	ppm	ASTM D5185m	750	1023	926	955
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0	Zinc	ppm	ASTM D5185m	840	1234	1146	1205
Silicon ppm ASTM D5185m >25 3 5 2 Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m 20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Sulfur	ppm	ASTM D5185m	2130	2980	3205	3088
Sodium ppm ASTM D5185m 2 0 0 Potassium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 1 3 Fuel % ASTM D3524 >5 ▲ 2.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Silicon	ppm	ASTM D5185m	>25	3	5	2
Fuel % ASTM D3524 >5 ▲ 2.8 <1.0 <1.0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Sodium	ppm	ASTM D5185m		2	0	0
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Potassium	ppm	ASTM D5185m	>20	2	1	3
Soot % % *ASTM D7844 >3 0.2 0.1 0.2 Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Fuel	%	ASTM D3524	>5	<u> </u>	<1.0	<1.0
Nitration Abs/cm *ASTM D7624 >20 7.0 4.7 7.6 Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 18.3 17.3 18.7 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Soot %	%	*ASTM D7844	>3	0.2	0.1	0.2
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Nitration	Abs/cm	*ASTM D7624	>20	7.0	4.7	7.6
Oxidation Abs/.1mm *ASTM D7414 >25 14.5 13.3 15.5	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	17.3	18.7
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.5 8.2 8.9 8.0	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	13.3	15.5
	Base Number (BN)	mg KOH/g	ASTM D2896	9.5	8.2	8.9	8.0



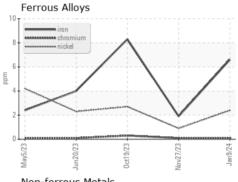
OIL ANALYSIS REPORT

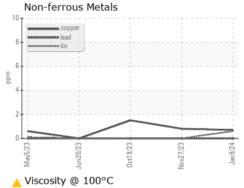


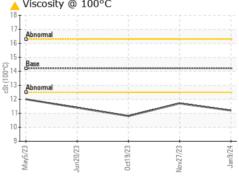
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
	DTIEO		11 11/4		1111	111

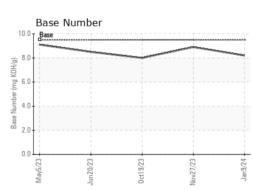
FLUID PROPERTIES method 10.8 Visc @ 100°C cSt ASTM D445 14.2 **11.2** 11.7

GRAPHS











Base

0.0



Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: PCA0105452 : 06080512

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

Recieved Diagnosed : 10862603

: 05 Feb 2024 : 07 Feb 2024 Diagnostician : Wes Davis

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) 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.

Transervice - Shop 1366 - Berkeley-Woodland

2370 East Main Street Woodland, CA US 95776 Contact: Gary Mann

gmann@transervice.com T: (530)666-7771 F: (530)406-7971

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)