	NEBRAS	KA	Nebraska Standards Labora	tory	Director of Agriculture Sherry Vinton								
Good Life, Great Roots. Lincoln, K6 8324 (402) 471 2087 Lincoln, N6 8324 (402) 471 2087 DEMATMENT OF AGRICULTURE Calibration Certificate of Mass unwords.nebraks.go. Calibration Date: May 8, 2024 Certificate Number: 2024-072-1 Artifact(s) Owner: FSCP Area 35 3721 West Curning St. Lincoln, NE 68524 Submitted by: State of Nebraska Point of Contact: NOA-Weights and Measures Ph. 402-471.3422 email: gor.wann@nebraska.gov Test Rem(s): 40-cast weights Date Received: May 6, 2024 D/ Asset Number: Area 35 Material: Cast Iron Class Specification: NIST Class F Reference Standards Used; Procedure Used; JPL Belaver Procedure Used; JPL NSL Ib standards NIST H6 6969, SOP 8 (2019) Metrologistic Mettler: XPR32003 Mettler: XPR32003 2 Temp: 21.6 °C Pressure: 719.7 mmlt Relative Humidity: 51.4 % State above, except as noted, anartifact is considered in-compliance when the correction puts the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out of compliance when the correction puts the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out of compliance when the correction puts the ensarrement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out of Compliance when the correction puts the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out of compliance meating, it is the decision of the Laboratory to adjust the surf					P.O. Box 94947								
Department OF AGRICULTURE Calibration Certificate of Mass Calibration Date: Nave a 35 3721 West Cuming SL. Lincoln, NE 68524 Submitted by: State of Nebraska Pint of Contact: NOA-Weights and Measures Ph. 402-471-322 email: gor.wan@nebraska.gor Test Rem(s): 40-cast weights Date Received: May 6, 2024 Manufacture: Various Material: Cast Iron Condition: Condition: Good (some wear) Reference Standards Used: NSL Ib standards Procedure Used: NSL Ib standards Date Received: May 6, 2024 Not The Standards Used: NSL Ib standards Procedure Used: Procedure Used: NSL Ib standards Date Received: May 6, 2024 Not The Standards Used: NSL Ib standards Procedure Used: NSL Ib standards Condition: Cood (some wear) Detrict Information On the artifact(s) listed in this document have been found and/or left within the maximum permissible error. All the specification stated above, except as noted, An artifact is considered in-compliance when the correction push the measurement uncertainty is equal to or less than the maximum permissible error. All of the userTances and design specifications (secept density, hardness and magnetism) were evaluated according to ASTM E617 (2023) and/or NIST HB 105-1 (2019) for the artifact(s) when the s	Good Life. Great	Roots.	Lincoln, NE 68524		Lincoln, NE 68509-4947								
Calibration Certificate of Mass Calibration Date: May 8, 2024 Certificate Number: 2024-072-1 Artifact(s) Owner: FSCP Area 35 3721 West Curning St. Lincoln, NE 66524 Submitted by: State of Nebraska Point of Contex: IND-Medipts and Measures Ph. 402,471-3422 Procedure Used: ID / Asset Number: Area 35 Material: Cast fron Class Specification: NIST Class F Condition: Cool Gome wear Reference Standards Used: NSL Ib standards Procedure Used: ID / Asset Number: Area 30 Material: Cast fron Procedure Used: Metrologist: JD / Asset Number: Area 30 Material: Cast fron Condition: Cool Gome wear Certification: NIST Class F Condition: Cool Gome wear Material: Cost fron Condition: Social Gome wear Metter Standards Used: NSL Ib standards NST HB 6969, SOP 8 (2019) Metrologist: JD R Materia: Cost from Compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RCD print: Indicates an out-of-compliance reading, It is the decision of the Laboratory to adjust the artifact(s) Methods when the sum of the correction and the uncertainty exceed 93% of the maximum permissible error. All of the Inderaces and deejan specifications exceed feast, hardness and magnetism) were evaluated according to ASTM ED17 (2023) and/or NIST HB 105-1 (2019) for the artifacts designated class.		ICH THE	(402)-471-2087										
Calibration Date: May 8, 2024 Certificate Number: 2024-072-1 Artifact(s) Owner: FSCP Area 35 3721 West Curing St. Lincoln, NE 68524 Submitted by: State of Nebraska Point of Contact; ND-Aweights and Measures Ph. 402, 471-3422 Test tem(s): 40-cast weights Lincoln, NE 68524 Date Received: May 6, 2024 Condition: Serial Number(s): See Next Page Class Specification: NET Class F Material: Cast Iron Condition: Social Number(s): See Next Page Class Specification: NET Class F Material: Cast Iron Reference Standards Used: NSL Ib standards Procedure Used: NSL Ib standards Condition: Cood (some wear) Metricolspit: Metricolspit: JPL Environmental Cond. Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: 51.4 % Pertiment Information OThe artifact(s) listed in this document have been found and/or left within the maximum permissible error. RD print Indicates an out-of-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RD print Indicates an out-of-compliance reading. It is the decision of the taboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error. All of the talerances and design specification stated above, maximum permissible error. RD print Indicates an out-of-compliance reading. It is the decision of the taboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error at 10 The 105-1 (20	www.ndu.nordona.ge												
Artifact(s) Owner: FSCP Area 35 3721 West Curning St. Lincoln, NE 68524 Submitted by: State of Nebraska. PDI: Add-2471-3422 email: gar.wamenebraska.gav Test Rem(s): 40-cast weights ID / Asset Number: Area 35 Manufacture: Various Date Received: May 6, 2024 Manufacture: Serial Number(s): See Next Page Manufacture: Various Serial Number(s): See Next Page Class Specification: NIST Class F Material: Cast Ion Condition: Good (some wear) Reference Standards Used: Procedure Used: JPL Equipment Used: Metrologist: JPL Equipment Used: Metrologist: Metrologist: NSL Ib standards NIST HB 6969, SOP 8 (2019) Metrologist: JPL Mettel x PR 604 Metrologist: Metrologist: • The artifact(s) listed in this document have been found and/or left within the maximum permissible error for the specification stated above, except as noted. An artifact is considered in-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out-of-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out-of-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out-of-compliance when the correction of the laboratory to adjust the artifact(s) when the aver of the standard of the state of the trasts designated class. • All corrections stated in this report correlate to a "Conventional Mass" (GM), also known as "apparent mass", scale verses 8.0 g/cm	· · ·												
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Lincoln, NE 68524 Ph. 402-471:3422 email: ogr.wan@pebraska.gov Test Item(s): 40-cast weights ID / Asset Number: Area 35 Mattriat: Opt.wang/pebraska.gov Test Item(s): 40-cast weights ID / Asset Number: Area 35 Mattriat: Cast Iron Condition: Good (some wear) Reference Standards Used: NSL Ib standards Reference Standards State Procedure Used: Frocedure Used: NSL Ib standards NS	Artifact(s) Owne	<u>r:</u> FSCP Area 35		Submitted by: State of Nebra	aska								
email: gr. wam@nebraska.gov ID / Asset Number: Area 35 Artifact(s) Description: Date Received: May 6, 2024 ID / Asset Number: Area 35 Manufacture: Various Class Specification: NIST Class F Manufacture: Various Condition: Good (some wear) Reference Standards Used: Procedure Used: Equipment Used: NSL Ib standards NIST H8 6969, SOP 8 (2019) Mettler XP 604 Metrologist: Mettologist: Mettologist: JPL Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: 51.4 % Environmental Cond, Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: 51.4 % Environmental Cond, Amatfact is considered in-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction plus the measurement uncertainty sequal to or less than the maximum permissible error. RED print indicates an out-of-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 5% of the maximum permissible error. All of the tolerances and design specifications (secept density, hardness and magnetism) were evaluated according to ASTM E017 (2023) and/or NIST HB 105-1 (2019) for the artifact(s designated class. • All corrections stated in this report correlate to a "Conventional Mass" (CM), also known as "apparent mass", scale verses 8.0 g/cm³ reference mass d		3721 West Cuming St.		Point of Contact: NDA-Weights a	and Measures								
Test Item(s): 40-cast weights Date Received: May 6, 2024 ID / Asset Number: Area 35 Artifact(s) Description: Serial Number(s): See Next Page Class Specification: NIST Class F Material: Cast Iron Condition: Good (some wear) Reference Standards Used: Equipment Used: NSL Ib standards NIST HB 6969, SOP 8 (2019) Mettler XP 604 Metrologist: Mettler XP 604 Metrologist: Mettler XP 832003 JPL Pertinent Information • The artifact(s) listed in this document have been found and/or left within the maximum permissible error. RED print indicates an out-of-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error. RED print indicates an out-of-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error. ALI of the tolerances and design specifications (except density, hardness and magnetism) were evaluated according to ASTM E617 (2023) and/or NIST HB 105-1 (2019) for the artifacts designated class. • All corrections stated in this report correlate to a "Conventional Mass" (CM), also known as "apparent mass", scale verses 8.0 g/cm" reference mass density and an air density of 1.2 mg/cm" at 20 °C. • It is the end user's responsibility to verify that the weights meet the accuracy requirements outlined in NIST Handbook 44 (2022), Appendix A Fundamental Considerations, when using the weie		Lincoln, NE 68524		Ph. 402-471-3	422								
ID / Asset Number: Area 35 Attifact(s) Description; Manufacture: Various Serial Number(s): See Next Page Class Specification: NIST Class F Material; Cast Iron Reference Standards Used: Procedure Used: Equipment Used: NSL b standards NIST HB 6969, SOP 8 (2019) Mettler XP 604 Metrologist: Mettler XPR32003 JPL Mettler XPR32003 Environmental Cond. Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: 51.4 % Environmental Cond. Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: 51.4 % Condition: Gond(storm) Detriment Information • The artifact(s) listed in this document have been found and/or left within the maximum permissible error for the specification stated above, except as note: An artifact is considered in compliance when the correction plus the measurement uncertainty is equal to role less than the maximum permissible error. RED print indicates an out-of-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error. All of the tolerances and design specifications (except density, hardness and magnetism) were evaluated according to ASTM E617 (2023) and/or NIST HB 105-1 (2019) for the artifact (s) described in this creptificate to a "Conventional Mass" (CM), also known as "apparent mass", scale verses 8.0 g/cm³ reference mass density and an air density of 1.2 mg/cm³ at 20 °C. • All corrections stated in this certificate have been compared to the Standards of th				<u>email:</u> agr.wam@neb	oraska.gov								
Manufacture: Various Material: Cast Iron Class Specification: NIST Class F Reference Standards Used: NSL lb standards Procedure Used: NIST HB 6969, SOP 8 (2019) Mettler XP 604 Mettler XP 804 Mettler XPR32003 Eauipment Used: NIST HB 6969, SOP 8 (2019) Mettler XPR32003 Environmental Cond, Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: JPL 51.4 % Environmental Cond, Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: JPL 51.4 % Environmental Cond, Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: JPL 51.4 % Environmental Cond, Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: JPL 51.4 % Environmental Cond, An artifact is considered in-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out-of-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error. All of the tolerances and design specifications (except tensity, hardness and magnetism) were evaluated according to ASTM E617 (2023) and/or NIST HB 105-1 (2019) for the artifacts designated class. • All corrections stated in this report correlate to a "Conventional Mass" (CM), also known as "apparent mass", scale verses 8.0 g/cm³ reference mass density and an air density of 1.2 mg/cm³ at 20 °C. • It is the end user's responsibility to verify that the weights for calibration of commercial (Legal for Trade) scales. <td>Test Item(s</td> <td>): 40-cast weights</td> <td></td> <td>Date Receive</td> <td>ed: May 6, 2024</td>	Test Item(s): 40-cast weights		Date Receive	ed: May 6, 2024								
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Metrologist: JPL Mettler XPR32003 Environmental Cond. Temp: 21.6 °C Pressure: 719.7 mmHg Relative Humidity: 51.4 % Pertinent Information • The artifact(s) listed in this document have been found and/or left within the maximum permissible error for the specification stated above, except as noted. An artifact is considered in-compliance when the correction plus the measurement uncertainty is equal to or less than the maximum permissible error. RED print indicates an out-of-compliance reading. It is the decision of the Laboratory to adjust the artifact(s) when the sum of the correction and the uncertainty exceed 95% of the maximum permissible error. All of the Laboratory to adjust the artifact(s) when the sum of the corrections and the uncertainty exceed 95% of the maximum permissible error. All of the Laboratory to adjust the artifacts designated class. • All corrections stated in this report correlate to a "Conventional Mass" (CM), also known as "apparent mass", scale verses 8.0 g/cm ³ reference mass density and an air density of 1.2 mg/cm ⁴ at 20 °C. • It is the end user's responsibility to verify that the weights meet the accuracy requirements outlined in NIST Handbook 44 (2022), Appendix A Fundamental Considerations, when using the weights for calibration of commercial (Legal for Trade) scales. Traceability Statement The artifact(s) described in this certificate have been compared to the Standards of the State of Nebraska. The Standards of the State of Nebraska are traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) and are part of a comprehensive measuremen													
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The artifact(s) described in this certificate have been compared to the Standards of the State of Nebraska. The Standards of the State of Nebraska are traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST) and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The calibration number for this certificate is the only unique calibration number to be used in referencing measurement traceability for the artifact(s) described in this certificate. <u>Uncertainty Statement</u> The combined standard uncertainty includes uncertainties reported for the standard, uncertainties associated with the measurement process, uncertainties for any observed deviations from reference values which are less than surveillance limits and the standard uncertainty for any uncorrected errors associated with air buoyance corrections. The combined standard uncertainty, which defines an interval with a 95.45 percent level of confidence. The expanded uncertainty presented in this report is consistent with the <i>Guide to the Expression of Uncertainty in Measurement (2008, revised 2012)</i> . Some components of the calibration can be evaluated through a Type A evaluation, or the method of evaluation of uncertainty by the statistical analysis (standard deviation) from the			ising the weights for calibration of comme										
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Nebraska Standards Laboratory 3721 West Cuming St. Lincoln, NE 68524 (402)-471-2087

Director of Agriculture Sherry Vinton P.O. Box 94947 Lincoln, NE 68509-4947 (402) 471-2341 www.nda.nebraska.gov

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DEPARTMENT OF AGRICULTURE **D** 1

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Calibrat	ion Date: Ma	ay 8, 2024			Certificat	e Numbe:	r: 2024-072	-1
			Ca	libration Resul	ts			
Nominal Mass	Serial Number / ID	As Found Conventional Mass Correction (g)	Adjusted (Y/N)	As Left Conventional Mass Correction (g)	Uncertainty ± (g)	(k) factor	NIST Class F MPE ± (g)	Assumed Density (g/cm ³)
25 lb	D31	0.21	Ν	0.21	0.14	2.01	1.1	7.2
25 lb	D32	-0.10	N	-0.10	0.14	2.01	1.1	7.2
25 lb	D33	-0.14	N	-0.14	0.14	2.01	1.1	7.2
<u>25 lb</u>	D34	0.70	N	0.70	0.14	2.01	1.1	7.2
<u>25 lb</u>	D35	-0.30	N	-0.30	0.14	2.01	1.1	7.2
<u>25 lb</u>	<u>D37</u>	-0.07	<u>N</u>	-0.07	0.14	2.01	1.1	7.2
<u>25 lb</u>	<u>D38</u>	0.61	<u>N</u>	0.61	0.14	2.01	1.1	7.2
25 lb	D39	0.30	<u>N</u>	0.30	0.14	2.01	1.1	7.2
50 lb	A5C-11	0.59	N	0.59	0.29	2.01	2.3	7.2
<u>50 lb</u>	A501	-1.13	<u>N</u>	-1.13	0.29	2.01	2.3	7.2
50 lb 50 lb	A504 B-C-1	<u>1.46</u> 0.30	N	<u>1.46</u> 0.30	0.29 0.29	2.01	2.3	7.2
50 lb	<u> </u>	0.30	N	0.30	0.29	<u>2.01</u> 2.01	<u>2.3</u> 2.3	7.2
50 lb	<u> </u>	1.06	N N	1.06	0.29	2.01	2.3	7.2
50 lb	<u>B-C-3</u> B-C-4	-2.18		1.22	0.29	2.01	2.3	7.2
50 lb	B-C-6	0.73	Ň	0.73	0.29	2.01	2.3	7.2
50 lb	B-C-7	0.82	Ň	0.82	0.29	2.01	2.3	7.2
50 lb	B-C-9	1.06	Ň	1.06	0.29	2.01	2.3	7.2
50 lb	B-C-12	2.73	Y	0.19	0.29	2.01	2.3	7.2
50 lb	50-16	1.29	Ň	1.29	0.29	2.01	2.3	7.2
1000 lb	1	-31.6	Ň	-31.6	5.7	2.01	45	7.2
1000 lb	2	26.7	N	26.7	5.7	2.01	45	7.2
1000 lb	3	-21.5	Ň	-21.5	5.7	2.01	45	7.2
1000 lb	4	1.5	Ň	1.5	5.7	2.01	45	7.2
1000 lb	5	35.5	Ň	35.5	5.7	2.01	45	7.2
1000 lb	6	21.0	N	21.0	5.7	2.01	45	7.2
1000 lb	7	-12.3	N N	-12.3	5.7	2.01	45	7.2
1000 lb	8	26.1	N	26.1	5.7	2.01	45	7.2
1000 lb	9	16.2	N	16.2	5.7	2.01	45	7.2
1000 lb	10	-11.4	N	-11.4	5.7	2.01	45	7.2
1000 lb	10	25.1	N N	25.1	5.7	2.01	45	7.2
1000 lb	11	-20.2	N	-20.2	5.7	2.01	45	7.2
	12	10.3		10.3	5.7	2.01	45	7.2
1000 lb			N					
1000 lb	14	42.4		1.6	5.7	2.01	45	7.2
1000 lb	15	32.3	N	32.3	5.7	2.01	45	7.2
1000 lb	16	22.7	<u>N</u>	22.7	<u> </u>	2.01	45	7.2
1000 lb	17	21.1	N	21.1	5.7	2.01	45	7.2
1000 lb	18	25.4	N	25.4	5.7	2.01	45	7.2
1000 lb	19	12.5	N	12.5	5.7	2.01	45	7.2
1000 lb	20	-30.3	N	-30.3	5.7	2.01	45	7.2

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Conversion Factors

1 ounce (avoirdupois) (oz) = 28.349 52 g

1 pound (avoirdupois) (lb) = 453.592 37 g exactly

me P. 3

Joel P. Lavicky Metrologist

The results in this certificate only applies to those item specifically listed in this certificate. This certificate cannot be considered complete unless it contains <u>all</u> pages. This document may not be reproduced except in <u>full</u>, without the written consent of the Nebraska Standards Laboratory.

5/10/2024

Date of Issue