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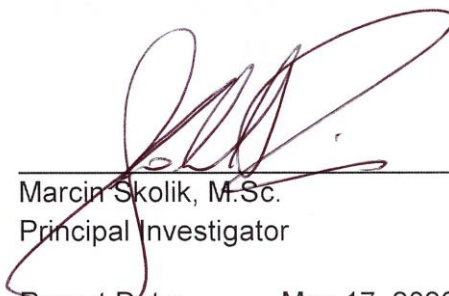
CONTROLLED USAGE STUDY TO EVALUATE EFFICACY OF A NAIL PRODUCT

Performed by:

Advanced Science Laboratories, Inc.
216 Congers Road, Building 1
New City, New York 10956

Report issued to (Study Sponsor):

Medicell Technologies, LLC/DefenAge
5850 El Camino Real, Suite 106
Carlsbad, California 92008



Marcin Skolik, M.Sc.
Principal Investigator

Report Date: May 17, 2023





CONCLUSIONS

(Report #: MS22.NAIL.A0852.MTDS.REP)

Results, within the limits imposed by the conduct and population size of the study described herein, demonstrated the test product (ADVANCED Lab No: A-0852; Client No: Nail Serum, Formula J-203-3) to be effective in improving overall condition of nails and skin in the nail root area.

Surface Evaluation via Visioscan® (Horizontal and Vertical Ridges via [SEw] and Surface Smoothness [SEsm])

Visioscan® surface evaluation has shown the test material reduced the average number, width and depth of vertical and horizontal ridges and improved nail plate surface smoothness.

Visioscan® measurements uncovered reduction in SEw parameter calculated from the proportion of horizontal and vertical ridges by average 25.73% and 46.47% after 56 and 91 days of use respectively.

Surface Evaluation via Visioscan® [SEw]			
Study Time Point:	Day 28	Day 56	Day 91
Average % Difference:	-0.24%	-25.73%	-46.47%
Max % Individual Difference:	-96.03%	-83.26%	-88.16%

*Statistically Significant ($p < 0.05$)

Moreover, calculation of the average depth and width of ridges concluded the test material improved nail plate smoothness as indicated by reduction in SEsm parameter.

Surface Evaluation via Visioscan [Nail Plate Surface Smoothness - SEsm]			
Study Time Point:	Day 28	Day 56	Day 91
Average % Reduction:	5.69%	-11.66%	-38.41%
Max % Individual Reduction:	-92.04%	-69.79%	-81.86%

*Statistically Significant ($p < 0.05$)

The decreases in SEw and SEsm are not considered statistically significant.

Nail Plate Hardness via Durometer

Durometer measurements demonstrated the test material increased nail plate hardness at all evaluation time points. Results are considered statistically significant after 56 and 91 days of product use.

Nail Plate Hardness via Durometer			
Study Time Point:	Day 28	Day 56	Day 91
Average % Improvement:	9.74%	24.57%*	23.68%*

*Statistically Significant ($p < 0.05$)



CONCLUSIONS

(Report #: MS22.NAIL.A0852.MTDS.REP)

Nail Free Edge Thickness Measurement via Optical Micrometer

Micrometric measurements demonstrated that thickness of nail free edge was reduced after 56 and 91 days of product use. The results are not considered statistically significant.

Nail Free Edge Thickness Measurements via Optical Micrometer		
Study Time Point:	Day 56	Day 91
Average % Difference:	-9.23%	-8.72%

*Statistically Significant ($p < 0.05$)

Skin Hydration via Nova Derma Phase Meter

Novameter readings of electroconductivity demonstrated the test material increased level of skin moisture content in nail root area after 56 and 91 days of product use.

Electroconductivity – Skin Moisturization via Novameter			
Study Time Point:	Day 28	Day 56	Day 91
Average % Improvement:	-3.03%	6.94%*	25.39%*

*Statistically Significant ($p < 0.05$)

Demonstrated increases in mean moisturization are considered statistically significant.

Nail Free Edge Length Measurement via Matched Scientific Photography™ (MSP™) with PhotoGrammetrix Image Analysis PhGx®

ADVANCED's exclusively detailed, high resolution before and after digital photographs demonstrated statistically significant increases in nail free edge length at all evaluation time points.

Nail Free Edge Length Analysis - Matched Scientific Photography™ (MSP™) with PhotoGrammetrix®			
Study Time Point:	Day 28	Day 56	Day 91
Average % Difference:	8.25%*	18.73%*	22.60%*

*Statistically Significant ($p < 0.05$)



CONTROLLED USAGE STUDY TO EVALUATE EFFICACY OF A NAIL PRODUCT

SIGNATURE PAGE

(Report #: MS23.NAIL.A0852.MTDS.REP)

Date report issued: May 17, 2023

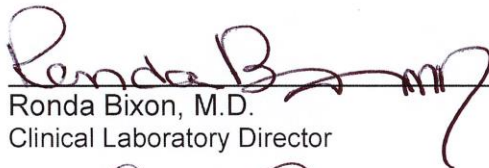
ADVANCED Study No: MS22.NAIL.A0852.MTDS.REP

ADVANCED Lab No: A-0852

Sponsor No.: Nail Serum, Formula J-203-3

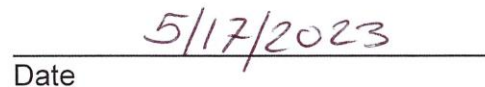
Study Site: Advanced Science Laboratories, Inc.
216 Congers Road, Building 1
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Date

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CONTROLLED USAGE STUDY TO EVALUATE EFFICACY OF A NAIL PRODUCT

Measurement Date: This study was conducted from October 11, 2022 through January 24, 2023.

Study Sponsor: Medicell Technologies, LLC/DefenAge
5845 Avenida Encinas, Suite 130
Carlsbad, California 92008

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1.0 OBJECTIVE:

The purpose of this study was to evaluate the efficacy of a topically applied nail serum intended to improve the overall condition of nails and skin in nail root area when tested over a period of 91 days on a group of four individuals. Surface smoothness of nail plate was evaluated instrumentally using a Visioscan® image analysis system; nail plate hardness via REX Model 2000 Type B Durometer; thickness of nail free plate using an optical micrometer MODEL; hydration of skin in nail root area was measured with the Nova Dermal Phase Meter. In addition, each stage in the progression of treatment was photographically documented using ADVANCED's exclusive High Resolution Matched Scientific Photography™. Image analysis of the photographs was developed via our trademarked Photogrammetrix® process utilized to measure length of nail free plate.

2.0 SAMPLE DESCRIPTION:

On August 12, 2022 test samples labeled Nail Serum, Formula J-203-3 were received from Medicell Technologies, LLC/DefenAge and assigned ADVANCED Lab No: A-0852.

3.0 TEST MATERIAL HANDLING:

Upon arrival at Advanced Science Laboratories, Inc., the test material was assigned a unique laboratory code number and entered into a daily log identifying the lot number, sample description, sponsor, date received and tests requested.

Samples are retained for a period of three months beyond submission of final report unless otherwise specified by the sponsor or if sample is known to be in support of governmental applications, in which case retained samples are kept two years beyond final report submission.

Sample disposal is conducted in compliance with appropriate federal, state and local ordinances.

3.1. TEST MATERIAL EVALUATION PRE REQUISITE:

Prior to induction of a human test panel, toxicology, microbiology or in-vitro performance spectra may be required to assess the feasibility of commencement as dictated by an Institutional Review Board (IRB) described in Section 4.0.

3.1.1. Sponsor purports that prior to sample submission, test materials were approved by the Sponsor's Legal and Regulatory departments for inclusion in this testing program, and that the following tests were conducted with no adverse results and the test data are on file at their premises and have not been made available to ADVANCED personnel:

- USP or CTFA Preservative Efficacy Test or equivalent
- 90 Day Accelerated Stability and Container Compatibility Study
- Fifty (50) person Repeat Insult Patch Test (RIPT) or equivalent



4.0 INSTITUTIONAL REVIEW BOARD [IORG0011153] [IRB00013226]:

Reference: CFR Title 21 Part 56, Subparts A, B, C, and D. The IRB of Advanced Science Laboratories, Inc. consists of 5 or more individuals, chosen from within the company for technical expertise and from the local community for lay interaction. The list of IRB members is kept on file at Advanced Science Laboratories, Inc., and is available for inspection during regular hours of operation.

5.0 PANEL SELECTION:

5.1. STANDARDS FOR INCLUSION IN THE STUDY

- a. Females and males between 40 and 58 years old.
- b. Individuals who completed a preliminary medical history and screening document as mandated by Advanced Science Laboratories, Inc.
- c. Individuals, who read, understood and signed an informed consent document as required by CFR Title 21, Part 50, Subpart B regulations. Consent forms are kept on file and are available for examination on the premises of ADVANCED, only.
- d. Individuals in general good health and free of any health problems, including neurologic, dermatologic, or systemic disorder that in the opinion of the Study Director would make study participation inappropriate.
- e. Individuals who agreed to use only the assigned test product during the test period.
- f. Individuals able to cooperate with the Investigator and research staff, willing to have the test material(s) applied according to the protocol, and complete the full course of study.

5.2. STANDARDS FOR EXCLUSION FROM THE STUDY:

- a. Individuals who are under the care of a physician for conditions that would interfere with the test results, at the discretion of the Study Director.
- b. Individuals currently taking medication that may mask or interfere with the test results, including the use of any anti-acne drugs, topical and oral retinoids, topical antibacterial agents, and any immunosuppressive drugs.
- c. Individuals with known self-reported allergies to cosmetic ingredients, toiletries, etc.
- d. Females who are pregnant, lactating, have been pregnant or given birth within the six-month period immediately preceding study commencement.
- e. Subjects with a history of any form of skin cancer, melanoma, lupus, psoriasis, connective tissue disease, or any disease that would increase the risk associated with study participation.



5.3. RECRUITMENT:

Panel selection is accomplished by advertisements in local periodicals, community bulletin boards, phone solicitation, electronic media or any combination thereof.

5.4. INFORMED CONSENT DOCUMENT:

An informed consent was obtained from each volunteer prior to initiating the study describing reasons for the study, possible adverse effects, associated risks and potential benefits of the treatment and their limits of liability. Panelists signed and dated the informed consent document to indicate their authorization to proceed and acknowledge their understanding of the contents. Each subject was assigned a permanent identification number and completed an extensive medical history form and screening form. These forms, along with the signed consent forms, are available for inspection on the premises of Advanced Science Laboratories, Inc., only. Reference 21 CFR Ch.1 Part 50, Subpart B.

6.0 PANEL DEMOGRAPHICS:

Three (3) female and two (2) male subjects were selected for this study:

Number of subjects enrolled	4
Number of subjects completing study	4
Age Range	40 - 58
Sex.....	Female 3
	Male 1
Race.....	Caucasian 4

7.0 PROCEDURE:

Total of four (4) subjects, three (3) females and one (1) male, were included in this study. On the initial day of the study, upon arrival at the testing facility, subjects were required to familiarize themselves with, then sign an informed consent. Panelists were mandated to adhere to all the restrictions mentioned in the inclusion/exclusion sections (refer to 5.1 and 5.2). All participants were advised of the general nature and purpose of this study. The subjects were then acclimated to the ambient environment for a period not less than fifteen (15) minutes prior to baseline evaluation. The acclimation procedure was repeated for each subsequent evaluation time point

The study was conducted according to Sponsor’s requested design wherein all subjects received written and verbal instructions regarding product use and study restrictions. Subjects were required to use the test material as a part of their daily routine according to the following sponsor supplied instructions:



“DIRECTIONS | NAIL

1. Twice daily, in the morning and evening, using the built-in brush, apply 1-2 pumps of the serum on all the nails and on the skin all around the nails on both hands. Push the button of the bottle to release a pump of the serum on top of the brush and then distribute the serum across all the nails and skin around the nails. Start with the first (distal) phalange, and then brush the serum toward nail end. Be sure that the serum is also distributed on the skin on both sides of the nails. Do not wash off (leave product on); the evening application product should be left overnight.

2. Put the cap back on the bottle and store the bottle with the cap on. The bottle can be stored in any way, including on the lid, on the button, or laying on its side.

TIPS

1. It may take 5-7 “empty” pumps to initiate the bottle (for bottle to start dispensing).

2. Using nail polish:

a. Consumers: For better results, do not cover nails with nail polish. If nail polish is used, the serum may not penetrate through the nails.

b. Clinical Study: Clinical study participants should not use nail polish 2 weeks before the study initiation and during the study. If nail polish was used, it should be removed 2 weeks before the clinical study initiation.

3. Do not wash the serum off after the application. This is a leave-on product, and it should stay on the skin and nails.

4. Do not use more pumps than recommended (do not overdose).

5. One bottle with the serum should be enough for 15-30 days if used as recommended.

Each product was weighed and recorded on a Product Weight Log prior to study initiation and again upon study completion to establish a use determination.

During the baseline qualification each panelist was evaluated by the Study Director/ Trained Clinical Evaluator in order to determine their eligibility for enrollment into the study.

Nail plate, nail free plate and skin in nail root area were designated as test areas for Bioinstrumental Measurements.



Nail plate surface smoothness evaluation was performed instrumentally using a Visioscan® image analysis system; nail plate hardness via REX Model 2000 Type B Durometer; thickness of nail free edge was measured using electronic micrometer (Starrett 795XRL-1 Ratchet Thimble Electronic Micrometer). Skin hydration in nail root area was measured with the Nova Dermal Phase Meter.

Visioscan®, Durometer, Novameter measurements and PhotoGrammetrix® Image Analysis readings were performed prior to application and again after 28, 56 and 91 days of product's use. Micrometric measurements were performed at baseline and again after 56 and 91 days of product use.

Fourteen (14) days before each evaluation time point, subjects arrived at the testing facility for a controlled cut of nail free edge. During all visits, High Resolution Matched Scientific Photographs™ were taken.

The study was conducted according to the following schedule:

Study Schedule						
Time Points	Evaluation Parameters					
	Control Cut of Nail Free Edge	VISIOSCAN® Measurements	DUROMETER Measurements	Thickness Measurements	Novameter Readings	Photography (MSP with PhGX)
14 Days Prior to Baseline	X					
Baseline (Day 0)		X	X	X	X	X
Day 14	X					
Day 28		X	X	X	X	X
Day 42	X					
Day 56		X	X	X	X	X
Day 77	X					
Day 91		X	X	X	X	X

The following distinct noninvasive methods were employed to establish evaluation parameters:

Surface Evaluation of Living Skin via Visioscan®

(Courage+Khazaka, Model: VC 98 USB SN: 17436019)

The Visioscan (Courage and Khazaka) takes a direct image of the living skin using a measuring head containing a CCD-camera and two metal halogen lamps positioned opposite each other in order to ensure even illumination of the measuring field on the skin. The grey level distribution of the pixels in the image correspond to different phenomena (white pixels represent desquamation on the skin, dark pixels represent lines and wrinkles). The software with the Visioscan automatically calculates surface smoothness, roughness, scaliness and wrinkle parameters.

Ref.1: Fischer, T.W., Wigger-Alberti W., Elsner P., *Direct and non- direct measurement techniques for analysis of skin surface topography. Skin Pharmacol Appl Skin Physiol* 1999; 12:1-11.

Ref.2: Mike Farwick, Ursula Maczkiewitz, Peter Lersch, Tim Falla, Susanne Grether-Beck, Jean Krutmann; *An EC-derived Tetrapeptide to Counterbalance ECM Degeneration; Cosmetic & Toiletries magazine, Vol 124 Np. 6/June 2009.*



Surface Hardness Measurements (Rex Durometer Type B):

(Rex Durometer Type B, Serial Number: B-0637)

A handheld durometer (Rex Durometer Type B, Serial Number: B-0637) was used to take measurements of material's (nail plate) hardness. The principle behind the hardness measurement is based on measurements of resistance force of the penetration of a pin into the test material under a known spring load. The amount of penetration (max.2.5mm) is converted to hardness reading on a scale with 100 units.

Ref.3: "CHECKLINE MADE TO MEASURE; Precision Instruments for Quality Control" Reference guide and Scale Comparison.

Electronic Micrometer:

(Starrett 795XRL-1 Ratchet Thimble Electronic Micrometer)

Thumb's free edge (left and right fingernail) was cut and thickness was measured via optical micrometry.

Electroconductivity via Novameter

(Nova, Technology Corp., Gloucester, Mass. Model: DPM 9003 SN: 904304)

A Nova Dermal Phase Meter, Model DPM 9003 (Nova, Technology Corp., Gloucester, Mass.) is used to obtain measurements of skin surface impedance to determine electroconductivity of the test sites. This meter provides a relative measure of the retained water content of the skin as a function of the skin's dielectric value. Skin impedance is recorded automatically when equilibrium is achieved.

Ref.4: Leveque, J.L., de Rigal, J.: Impedance Methods for Studying Skin Moisturization, J. Soc. Cosmet. Chem., 34: 419-428, 1983.

High Resolution Matched Scientific Photography™ with PhotoGrammetrix®:

Exclusively detailed, high resolution before and after digital photographs will be taken, with fixed camera background, angles, settings, lighting, automated panelist positioning, white balance, standardized and digitally certified unretouched. Each stage in the progression of the product treatment is photographically documented. This set of photographs provides a visual record of the efficacy of the product. Fingernails (Index, Middle, Ring, Little and Thumb) were photographed at the following time points: at Baseline (beginning of the study), Day 28, 56, and 91.

PhotoGrammetrix® Image Analysis on all MSP® images is conducted allowing the evaluation parameters (Free Plate Length) to be captured and quantified.

^If applicable



8.0 STATISTICAL SOURCE DATA:

The source data are Visioscan®, Durometer, Electronic Micrometer and Novameter readings which were totaled and reported as average scores (where applicable) as well as PhotoGrammetrix® analysis results from MSP® images. Moreover, the data obtained was quoted as % differences from baseline or from each of the previously described time points (where applicable).

A within group comparison of baseline measurements with post-treatment measurements was analyzed using a (two-tailed, paired) t-test, ($p < 0.05$).

9.0 RESULTS:

Please refer to attached Table and Chart (pages 13- 18).

10.0 OBSERVATIONS:

No adverse effects or unexpected reactions of any kind were observed on any of the subjects throughout this course of study.

11.0 ARCHIVING:

All original samples, raw data sheets, technician's notebooks, correspondence files, copies of final reports and remaining specimens are maintained on the premises of Advanced Science Laboratories, Inc. in secure limited access marked storage files for a period not to exceed two years. Sponsors are encouraged to keep all original signed, dated and certified reports. ADVANCED will not be responsible, and it will not be possible to provide duplicate original hard copies of final reports once the documents leave our premises.

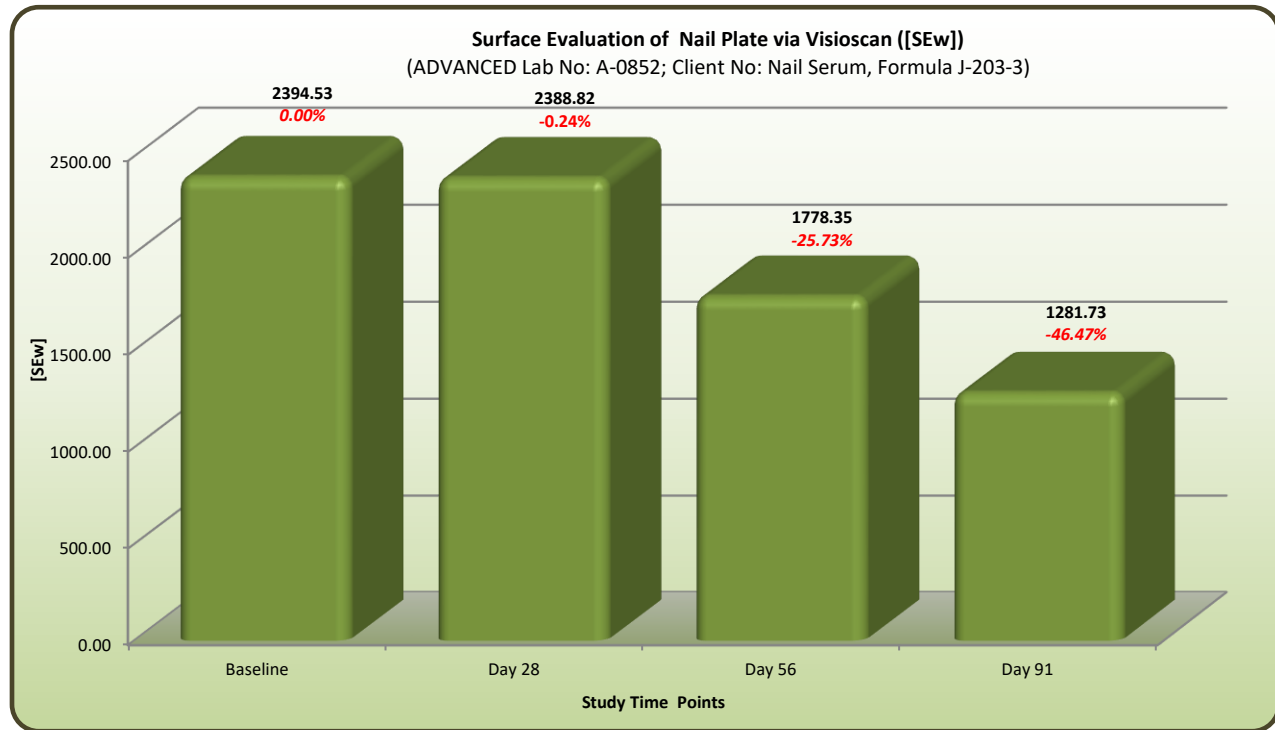


12.0 TABLES AND CHARTS:

**SURFACE EVALUATION OF NAIL PLATE
(Horizontal and Vertical Ridges - SEw) – VISIOSCAN®**

Surface Evaluation of Nail Plate via Visioscan - [SEw]							
ADVANCED Lab No.:	Client No.:						
A-0852	Nail Serum, Formula J-203-3						
Panelist ID No.:	Baseline	Day 28	Individual % Difference	Day 56	Individual % Difference	Day 91	Individual % Difference
58 2313	2131.00	1522.00	-28.58%	716.20	-66.39%	1556.00	-26.98%
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	495.10	334.80	-32.38%	817.50	65.12%	884.10	78.57%
66 1286	6446.00	2448.00	-62.02%	6950.00	7.82%	2700.00	-58.11%
	2185.00	10111.00	362.75%	2239.00	2.47%	2139.00	-2.11%
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1650.00	1483.00	-10.12%	2536.00	53.70%	722.20	-56.23%
11 3764	9129.00	362.40	-96.03%	1528.00	-83.26%	1081.00	-88.16%
	2921.00	990.50	-66.09%	944.40	-67.67%	1206.00	-58.71%
	857.80	571.00	-33.43%	737.80	-13.99%	460.30	-46.34%
	400.00	1257.00	214.25%	861.80	115.45%	787.00	96.75%
62 8965	2034.00	7667.00	276.94%	2253.00	10.77%	N/A	N/A
	971.10	1917.00	97.41%	1150.00	18.42%	N/A	N/A
	1241.00	1241.00	0.00%	1540.00	24.09%	N/A	N/A
	667.90	1150.00	72.18%	844.80	26.49%	N/A	N/A
Average:	2394.53	2388.82		1778.35		1281.73	
Average % Difference		-0.24%		-25.73%		-46.47%	

*Statistically Significant (p<0.05)



Surface Evaluation of Nail Plate via Visioscan

The Visioscan (Courage and Khazaka) takes a direct image of the living surface using a measuring head containing a CCD-camera and two metal halogen lamps positioned opposite each other in order to ensure even illumination of the measuring field on the surface. The grey level distribution of the pixels in the image correspond to different phenomena (white pixels represent desquamation on the skin, dark pixels represent lines and wrinkles). The software with the Visioscan automatically calculates surface smoothness, roughness, scaliness and wrinkle parameters.

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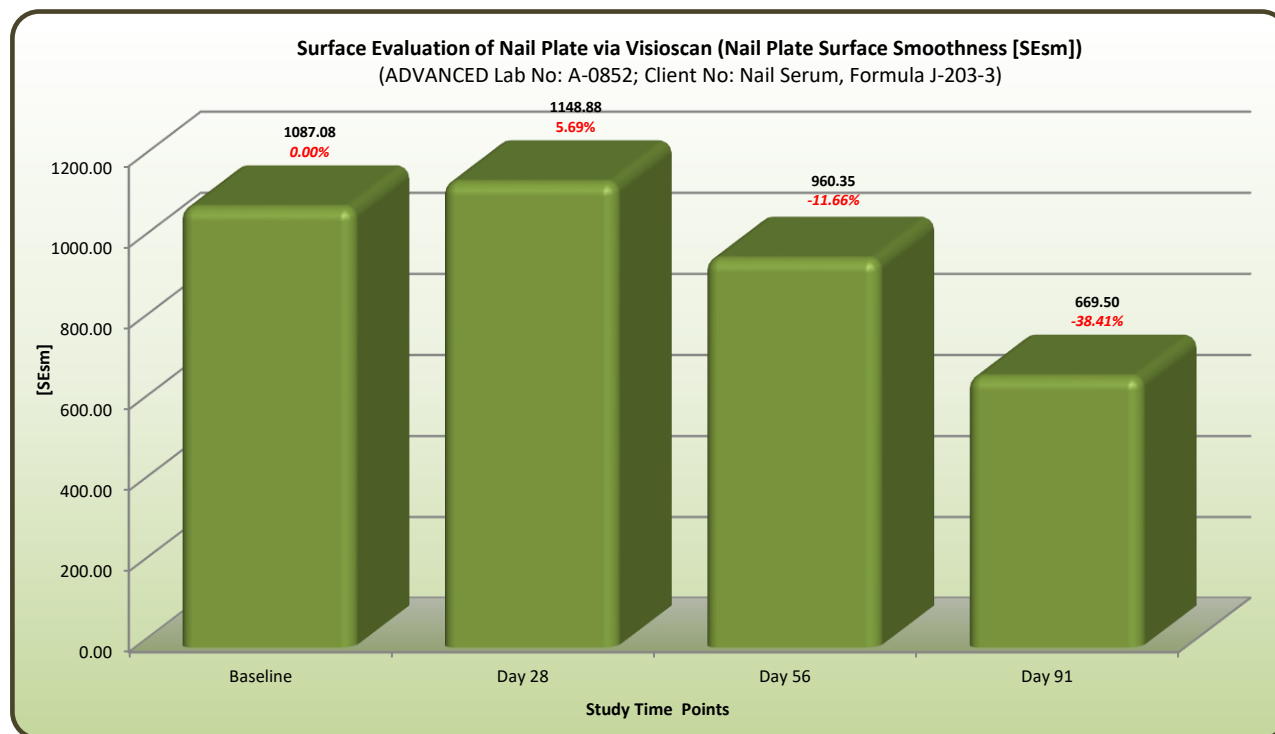
Rer.2: Mike Farwick, Ursula Maczkiewitz, Peter Lersch, Tim Falla, Susanne Grether-Beck, Jean Krutmann; An EC-derived Tetrapeptide to Counterbalance ECM Degeneration; Cosmetic & Toiletries magazine, Vol 124 Np. 6/June 2009.



SURFACE EVALUATION OF NAIL PLATE (Nail Plate Surface Smoothness - SEsm) – VISIOSCAN®

Surface Evaluation of Nail Plate via Visioscan - Surface Smoothness [SEsm]							
ADVANCED Lab No.:	Client No.:						
A-0852	Nail Serum, Formula J-203-3						
Panelist ID No.:	Baseline	Day 28	Individual % Difference	Day 56	Individual % Difference	Day 91	Individual % Difference
58 2313	946.30	949.70	0.36%	393.20	-58.45%	410.90	-56.58%
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
66 1286	505.00	210.90	-58.24%	426.70	-15.50%	596.80	18.18%
	2192.00	820.10	-62.59%	1272.00	-41.97%	918.00	-58.12%
	963.70	3155.00	227.38%	1182.00	22.65%	1322.00	37.18%
11 3764	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	912.50	806.70	-11.59%	1567.00	71.73%	469.40	-48.56%
	3433.00	273.30	-92.04%	1037.00	-69.79%	622.90	-81.86%
62 8965	1262.00	846.90	-32.89%	722.50	-42.75%	839.50	-33.48%
	424.60	358.00	-15.69%	523.80	23.36%	309.30	-27.15%
	296.80	673.60	126.95%	767.00	158.42%	536.70	80.83%
Average:	1367.00	3281.00	140.01%	2019.00	47.70%	N/A	N/A
	524.40	1731.00	230.09%	786.60	50.00%	N/A	N/A
	759.70	670.30	-11.77%	1035.00	36.24%	N/A	N/A
	545.00	1159.00	112.66%	752.70	38.11%	N/A	N/A
Average:	1087.08	1148.88		960.35		669.50	
Average % Difference:		5.69%		-11.66%		-38.41%	

*Statistically Significant (p<0.05)



Surface Evaluation of Nail Plate via Visioscan

The Visioscan (Courage and Khazaka) takes a direct image of the living surface using a measuring head containing a CCD-camera and two metal halogen lamps positioned opposite each other in order to ensure even illumination of the measuring field on the surface. The grey level distribution of the pixels in the image correspond to different phenomena (white pixels represent desquamation on the skin, dark pixels represent lines and wrinkles). The software with the Visioscan automatically calculates surface smoothness, roughness, scaliness and wrinkle parameters.

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Ref.2: Mike Farwick, Ursula Maczkiewitz, Peter Lersch, Tim Falla, Susanne Grether-Beck, Jean Krutmann; An EC-derived Tetrapeptide to Counterbalance ECM Degeneration; *Cosmetic & Toiletries magazine*, Vol 124 Np. 6/June 2009.

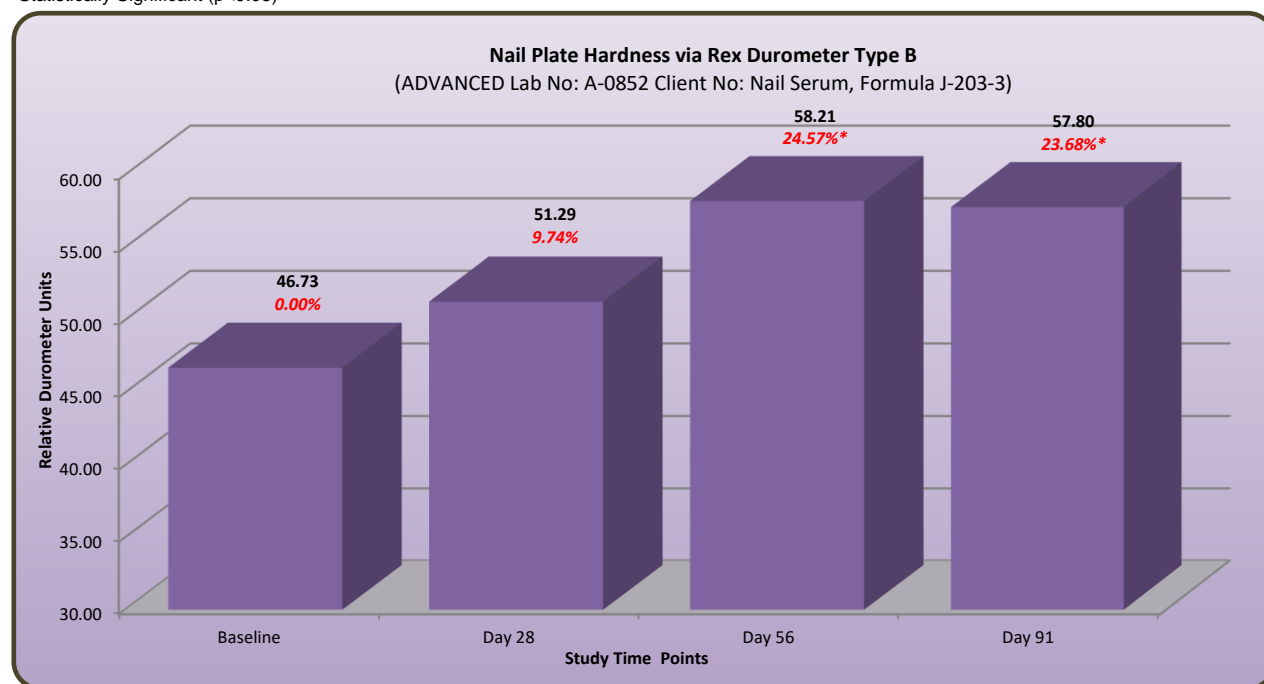
May 17, 2023



NAIL PLATE HARDNESS MEASUREMENTS DUROMETER (Rex Durometer Type B)

Nail Plate Hardness Analysis - Nail Plate Hardness Measurements - via Rex Durometer Type B									
ADVANCED Lab Nos.:		Client Lab Nos.:							
A-0852		Nail Serum, Formula J-203-3							
Panelist ID No.:	Nail #:	Baseline		Day 28		Day 56		Day 91	
		Nail Hardness	Average Hardness	Nail Hardness	Average Hardness	Nail Hardness	Average Hardness	Nail Hardness	Average Hardness
58 2313	Left Thumb	58	55.00	56	58.25	56	56.25	59	59.25000
		55		54		62		59	
	Right Thumb	52		59		57		64	
		55		64		50		55	
66 1286	Left Thumb	45	49.25	54	56.50	69	64.50	61	61.50000
		50		56		60		65	
	Right Thumb	51		62		59		56	
		51		54		70		64	
11 3764	Left Thumb	41	44.67	49	45.00	51	50.00	49	47.50000
		53		N/A		N/A		N/A	
	Right Thumb	40		41		49		46	
		N/A		N/A		N/A		N/A	
62 8965	Left Thumb	35	37.50	35	42.25	43	58.00	N/A	N/A
		49		24		68		N/A	
	Right Thumb	34		60		69		N/A	
		32		50		52		N/A	
Average Hardness:		46.73		51.29		58.21		57.80	
Average % Improvement:				9.74%		24.57%*		23.68%*	

*Statistically Significant (p<0.05)



Surface Hardness Measurements (Rex Durometer Type B):

A handheld durometer (Rex Durometer Type B, Serial Number: B-0637) was used to take measurements of material's (nail plate) hardness. The principle behind the hardness measurement is based on measurements of resistance force of the penetration of a pin into the test material under a known spring load. The amount of penetration (max.2.5mm) is converted to hardness reading on a scale with 100 units.

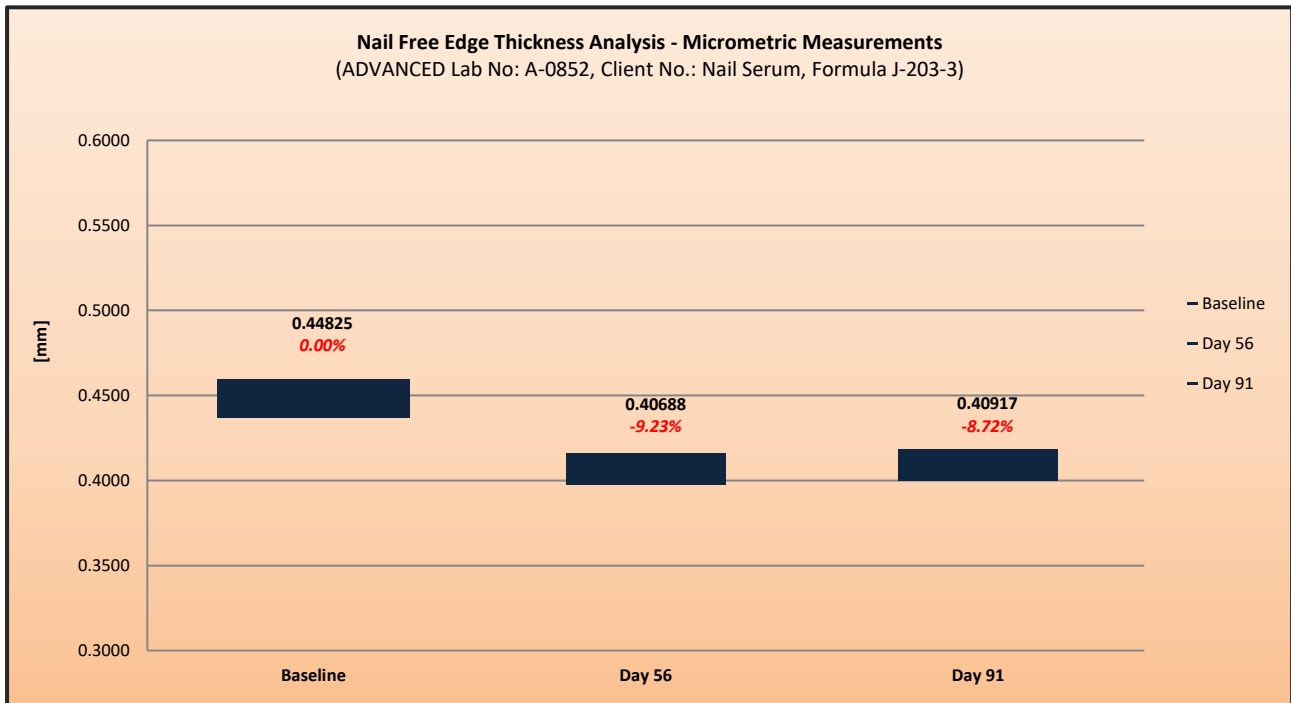
Ref.3: "CHECKLINE MADE TO MEASURE; Precision Instruments for Quality Control" Reference guide and Scale Comparison.



NAIL FREE EDGE THICKNESS EVALUATION Micrometric Measurements

Nail Free Edge Thickness Analysis - Nail Thickness Micrometric Measurements - SUMMARY							
ADVANCED Lab No:		Client Lab No:					
A-0852		Nail Serum, Formula J-203-3					
Panelist ID No.:	Nail #:	Baseline		Day 56		Day 91	
		Nail Thickness (Thickness) [mm]	Average Thickness [mm]	Nail Thickness (Thickness) [mm]	Average Thickness [mm]	Nail Thickness (Thickness) [mm]	Average Thickness [mm]
58 2313	Left Thumb	0.345	0.45050	0.397	0.40600	0.433	0.39550
	Right Thumb	0.556		0.415		0.358	
66 1286	Left Thumb	0.351	0.37700	0.305	0.29100	0.321	0.30550
	Right Thumb	0.403		0.277		0.290	
11 3764	Left Thumb	0.315	0.36850	0.468	0.48450	0.501	0.52650
	Right Thumb	0.422		0.501		0.552	
62 8965	Left Thumb	0.657	0.59700	0.461	0.44600	N/A	N/A
	Right Thumb	0.537		0.431			
Average Thickness (Thickness) [mm]:		0.44825		0.40688		0.40917	
Average % Improvement:				-9.23%		-8.72%	

*Statistically Significant (p<0.05)



Nail Thickness Micrometric Measurements

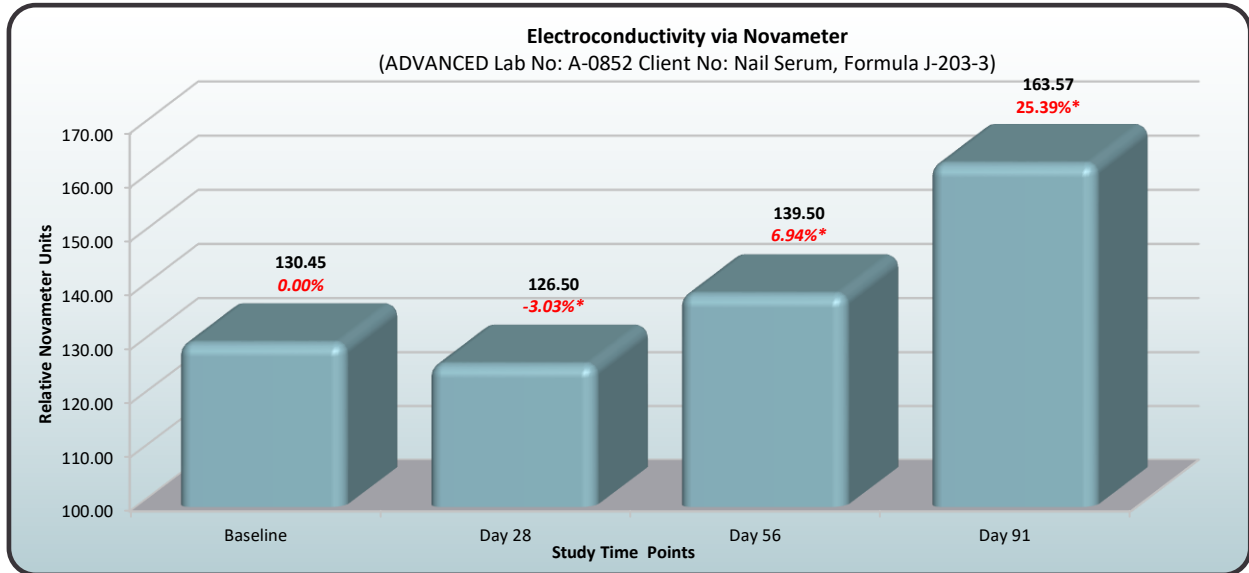
Thumb's free edge (left and right fingernail) was cut and thickness measured via optical micrometry (Starrett 795XRL-1 Ratchet Thimble Electronic Micrometer).



NOVAMETER - HYDRATION OF SKIN IN NAIL ROOT AREA

Electroconductivity via Novameter – Hydration of Skin in Nail Root Area									
ADVANCED Lab No:		Client Lab No:							
A-0852		Nail Serum, Formula J-203-3							
Panelist ID No.:	Nail Root #:	Baseline		Day 28		Day 56		Day 91	
		Individual Measurement	Average	Individual Measurement	Average	Individual Measurement	Average	Individual Measurement	Average
58 2313	Left Finger Root 1	108	126.20	126	112.60	136	131.80	134	154.20
	Left Finger Root 2	144		132		126		126	
	Left Finger Root 3	130		102		114		142	
	Left Finger Root 4	128		118		126		134	
	Left Finger Root 5	142		114		128		156	
	Right Finger Root 1	106		108		166		158	
	Right Finger Root 2	102		100		106		134	
	Right Finger Root 3	102		118		134		182	
	Right Finger Root 4	118		102		138		144	
	Right Finger Root 5	182		106		144		232	
	Left Finger Root 1	220		210		158		224	
	Left Finger Root 2	220		142		156		164	
Left Finger Root 3	188	118	142	142					
Left Finger Root 4	244	174	202	190					
Left Finger Root 5	176	130	188	170					
Right Finger Root 1	180	146	156	258					
Right Finger Root 2	132	148	180	202					
Right Finger Root 3	116	166	148	144					
Right Finger Root 4	168	182	144	190					
Right Finger Root 5	138	182	152	216					
11 3764	Left Finger Root 1	120	109.00	98	105.40	134	141.20	118	146.50
	Left Finger Root 2	94		98		144		118	
	Left Finger Root 3	102		98		130		116	
	Left Finger Root 4	110		126		146		146	
	Left Finger Root 5	120		130		160		176	
	Right Finger Root 1	106		102		130		158	
	Right Finger Root 2	100		98		150		142	
	Right Finger Root 3	102		102		126		158	
	Right Finger Root 4	120		100		154		163	
	Right Finger Root 5	116		102		138		170	
	Left Finger Root 1	120		140		124		N/A	
	Left Finger Root 2	108		122		122		N/A	
Left Finger Root 3	116	108	114	N/A					
Left Finger Root 4	106	122	114	N/A					
Left Finger Root 5	108	102	104	N/A					
Right Finger Root 1	120	170	136	N/A					
Right Finger Root 2	104	162	132	N/A					
Right Finger Root 3	100	114	114	N/A					
Right Finger Root 4	106	108	124	N/A					
Right Finger Root 5	96	134	140	N/A					
Average Novameter Reading:		130.45		126.50		139.50		163.57	
		<i>Average % Difference:</i>		<i>-3.03%*</i>		<i>6.94%*</i>		<i>25.39%*</i>	

*Statistically Significant (p<0.05)



Electroconductivity – Skin Moisturization via Novameter

A Nova Dermal Phase Meter, Model DPM 9003 (Nova, Technology Corp., Gloucester, Mass.) is used to obtain measurements of skin in nail root area surface impedance to determine electroconductivity of the treatment sites. This meter provides a relative measure of the retained water content of the skin as a function of the skin's dielectric value. Skin impedance will be recorded automatically when equilibrium will be achieved.

Ref. 4.: Leveque, J.L., de Rigal, J.: Impedance Methods for Studying Skin Moisturization, J. Soc. Cosmet. Chem., 34: 419 428, 1983.

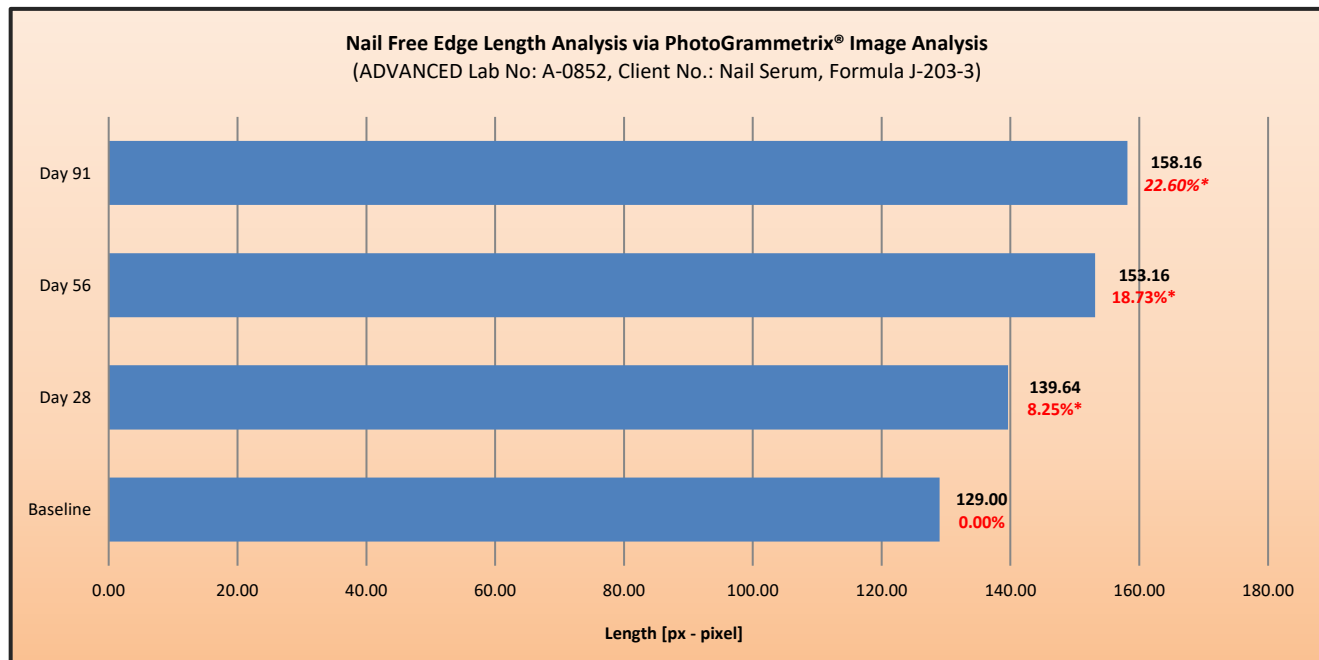


NAIL FREE Edge LENGTH EVALUATION

PhotoGrammetrix® Amage Analysis (Nail Free Plate Length Measurements)

Nail Free Edge Length Analysis - PhotoGrammetrix® Amage Analysis - SUMMARY									
ADVANCED Lab Nos.:		Client Lab Nos.:							
A-0852		Nail Serum, Formula J-203-3							
Panelist ID No.:	Nail #:	Baseline		Day 28		Day 56		Day 91	
		Nail Free Edge Length [PX]	Average Length [PX]	Nail Free Edge Length [PX]	Average Length [PX]	Nail Free Edge Length [PX]	Average Length [PX]	Nail Free Edge Length [PX]	Average Length [PX]
58 2313	Left 1	112	136.70	146	164.00	192	184.00	187	190.30
	Left 2	158		160		181		124	
	Left 3	131		150		167		202	
	Left 4	138		158		174		181	
	Left 5	100		190		185		214	
	Right 1	152		221		232		235	
	Right 2	176		151		141		188	
	Right 3	121		155		169		169	
	Right 4	136		163		220		217	
	Right 5	143		146		179		186	
66 1286	Left 1	N/A	134.88	138	129.11	N/A	142.83	N/A	151.17
	Left 2	172		119		156		N/A	
	Left 3	137		112		N/A		166	
	Left 4	110		132		117		N/A	
	Left 5	159		N/A		N/A		145	
	Right 1	113		113		N/A		119	
	Right 2	116		139		148		140	
	Right 3	115		149		211		164	
	Right 4	157		153		115		173	
	Right 5	N/A		107		110		N/A	
11 3764	Left 1	71	111.30	81	125.70	107	117.33	124	127.11
	Left 2	124		159		128		148	
	Left 3	112		141		127		135	
	Left 4	102		104		129		129	
	Left 5	151		159		N/A		N/A	
	Right 1	146		166		129		144	
	Right 2	73		119		93		91	
	Right 3	120		139		144		146	
	Right 4	134		109		107		121	
	Right 5	80		80		92		106	
62 8965	Left 1	N/A	137.83	N/A	137.25	N/A	165.83	N/A	N/A
	Left 2	133		N/A		150		N/A	
	Left 3	N/A		N/A		N/A		N/A	
	Left 4	149		135		157		N/A	
	Left 5	N/A		N/A		N/A		N/A	
	Right 1	128		150		135		N/A	
	Right 2	172		145		190		N/A	
	Right 3	124		119		179		N/A	
	Right 4	121		N/A		184		N/A	
	Right 5	N/A		N/A		N/A		N/A	
Average Length [px]:		129.00		139.64		153.16		158.16	
Average % Difference:				8.25%*		18.73%*		22.60%*	

*Statistically Significant (p<0.05)



May 17, 2023



13.0 QUALITY ASSURANCE STATEMENT:

This study was inspected in accordance with the Standard Operating Procedures of Advanced Science Laboratories, Inc. To assure compliance with the study protocol the Quality Assurance Unit completed an audit of the study records and report.

Report reviewed by:



Jennifer Conforto, M.A.
Quality Assurance Supervisor

5/17/2023

Date