

NIJ BA CTP Compliance Test Report

Report Identification Number: 11697-36

Issue/Revision Number:

Report Date: 12/20/2012

200825-0

NVLAP Lab Code

Test Laboratory Name: H.P. White Laboratory

Address: 3114 Scarboro Road

Street, MD 21154

MKU PVT, LIMITED

Customer: 625 KA,638,639, KHUJAUPUR, SALEMPUR MODE

Address: ROOMA, KANPUR-209402

INDIA

Conditioning Laboratory Name: H.P. White Laboratory

Address: 3114 Scarboro Road

Street, MD 21154

Prospective Model Designation: P-10016 ICW MKS-1002

This test report and the results herein are to be used solely for the purpose of determining compliance to the NIJ 0101.06 Body Armor Standard. The test data should not be used to compare the relative performance characteristics between different models of body armor.

Reproduction of this test report is prohibited except in full.

This test report may not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the Federal Government.

Test results relate only to the items tested.

Authorized Signatory: SHAWN KROUT

Function/Position: CUSTOMER OPERATIONS COORDINATOR

Signature:

Date:

NIJ Hard Armor CTR

NVLAP Lab Code: <u>200825-0</u>		Test Laboratory Name: <u>H.P. White Laboratory</u>	
		Report Identification Number: <u>11697-36</u>	
		Issue / Revision Number: _____	
COMPLIANCE TESTING INFORMATION			
Test Start Date: <u>12/17/18</u>		Report Date: <u>12/20/12</u>	
End Date: <u>12/18/12</u>			
RANGE INFORMATION:			
Range Length: <u>50.3</u> ft		Velocity 1: <u>5</u> ft. <u>1.524</u> m	
		Velocity 2: <u>5</u> ft. <u>1.524</u> m	
Velocity Measurement Units: <u>TIME</u> Chronographs will report the time of flight.			
Data should be entered in μ s (10^{-6} s).			
ARMOR DESCRIPTION:			
Manufacturer: MKU PVT, LIMITED			
Date Rec'd: <u>12/03/12</u>		Test ID: <u>MKU10-001973</u>	
		NIJ Armor Type: <u>3</u>	
		Style: <u>N/A</u>	
SHOT-TO-EDGE REQUIREMENTS:			
Threat 1: <u>2</u> Inches		Labels legible and adhered after wear tests?: <u>YES</u> (Yes/No)	
Threat 2: <u>2</u> Inches		Labels legible and adhered after conditioning protocol?: <u>YES</u> (Yes/No)	
		Labels meet the requirements of 4.1.5.3	
ARMOR CONSTRUCTION:			
Armor Test Configuration: <u>Non-Planar</u>			
Individual Layer Description:	Plate	In Conjunction With Panel (if applicable)	
	Number of Layers: <u>1</u>	Front Closure (Y/N): <u>No</u>	
	LAYER 1, 19mm RIGID POLYETHYLENE FILM.	Number of Layers: <u>39</u>	
		LAYERS 1-35 AND 37-39, FLEX WOVEN ARAMID FIBER (22X22). LAYER 36, COATED FLEX WOVEN ARAMID FIBER (22X22).	
Description of Stitching:	NONE	LAYERS 1-20, 21-35, AND 37-39, PERIMETER STITCH. LAYERS 1-35, PERIMETER STITCH. LAYERS 1-20, 2.50" DIAMOND QUILT STITCH. LAYERS 21-35, 1.625" DIAMOND QUILT STITCH. LAYERS 37-39, 1.25" DIAMOND QUILT STITCH. LAYERS 1-20, 21-35 AND 37-39, WITH COTTON STRIP AROUND THE EDGE VIA PERIMETER STITCH.	
Remarks and Revision History: STRAPPING: 2 VERTICAL AND 3 HORIZONTAL. PANEL HAS DOUBLE RIP STOP CARRIER.			

Compliance Test Report revision NIJ0101 - CTR Hard Armor 01-13 (2012-05-22) / MS Excel version 14.0 / Operating System version Windows (32-bit) NT 5.01

NATIONAL INSTITUTE OF JUSTICE
COMPLIANCE TEST REPORT

Use this space to enter any necessary supplemental information

NIJ Hard Armor CTR

NVLAP Lab Code: <u>200825-0</u> 1785					Test Laboratory Name: <u>H.P. White Laboratory</u> Report Identification Number: <u>11697-36</u> Issue / Revision Number: _____																													
Penetration and BFS Summary Data																																		
Test ID: <u>MKU10-001973</u> Manufacturer: <u>MKU PVT, LIMITED</u> Ammunition: <u>7.62mm</u> <u>147/FMJ</u>					Report Date: <u>12/20/12</u>																													
					<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Test Velocity:</td> <td style="width: 30%;">847.3</td> <td style="width: 40%;">±9.1 m/s</td> </tr> <tr> <td></td> <td>(2780)</td> <td>±30 ft/s</td> </tr> </table>					Test Velocity:	847.3	±9.1 m/s		(2780)	±30 ft/s																			
Test Velocity:	847.3	±9.1 m/s																																
	(2780)	±30 ft/s																																
Sample Information																																		
Sample Number	Soft Armor Panel		Hard Armor Plate		Gross Weight	Shot	Avg. Vel.	Perf	BFS																									
	Lot Number	Serial Number	Lot Number	Serial Number	(lbs)	Number	(ft/s)	(Y=1/N=0)	(mm)	Note																								
1	1	T-4036	1	C-2786	7.06	1	2779	0	35																									
1	1	T-4036	1	C-2786	7.06	2	2805	0	33																									
1	1	T-4036	1	C-2786	7.06	3	2815	0																										
1	1	T-4036	1	C-2786	7.06	4	2779	0																										
1	1	T-4036	1	C-2786	7.06	5	2807	0																										
1	1	T-4036	1	C-2786	7.06	6	2787	0																										
2	1	T-4037	1	C-2787	7.03	7	2801	0	40																									
2	1	T-4037	1	C-2787	7.03	8	2765	0	30																									
2	1	T-4037	1	C-2787	7.03	9	2793	0																										
2	1	T-4037	1	C-2787	7.03	10	2797	0																										
2	1	T-4037	1	C-2787	7.03	11	2804	0																										
2	1	T-4037	1	C-2787	7.03	12	2776	0																										
3	1	T-4038	1	C-2788	7.01	13	2797	0	38																									
3	1	T-4038	1	C-2788	7.01	14	2779	0	30																									
3	1	T-4038	1	C-2788	7.01	15	2801	0																										
3	1	T-4038	1	C-2788	7.01	16	2793	0																										
3	1	T-4038	1	C-2788	7.01	17	2804	0																										
3	1	T-4038	1	C-2788	7.01	18	2773	0																										
4	1	T-4039	1	C-2789	7.06	19	2793	0	41																									
4	1	T-4039	1	C-2789	7.06	20	2797	0	33																									
4	1	T-4039	1	C-2789	7.06	21	2776	0																										
4	1	T-4039	1	C-2789	7.06	22	2782	0																										
4	1	T-4039	1	C-2789	7.06	23	2787	0																										
4	1	T-4039	1	C-2789	7.06	24	2801	0																										
5	1	T-4044	1	C-2785	7.08	25																												
5					7.08	26																												
5					7.08	27																												
5					7.08	28																												
5					7.08	29																												
5					7.08	30																												
Summary: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Perforations:</td> <td style="width: 10%;">0</td> <td style="width: 20%;">BFS Statistics:</td> <td style="width: 10%;">Count:</td> <td style="width: 10%;">8</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Maximum BFS:</td> <td>41 mm</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="8">Pass - No BFS greater than 44 mm</td> </tr> </table>											Perforations:	0	BFS Statistics:	Count:	8				Maximum BFS:	41 mm							Pass - No BFS greater than 44 mm							
Perforations:	0	BFS Statistics:	Count:	8																														
Maximum BFS:	41 mm																																	
Pass - No BFS greater than 44 mm																																		
Overall P-BFS Summary																																		
Perforations: <u>0</u> This requirement is for all P-BFS tested samples This armor model meets the perforation performance requirements of NIJ Standard-0101.06 Section 7.8.8.																																		
Backface Signature: <u>41 mm</u> This requirement is for all hard armor plate models Maximum BFS: <u>41 mm</u> This armor model meets the BFS performance requirements of NIJ Standard-0101.06 Section 7.8.8 Item a.																																		
Compliance Test Report revision Hard Armor 1-11 (2012-03-30) / MS Excel version 14.0 / Operating System version Windows (32-bit) NT 5.01																																		

Armor Information	
Plate Subjected to hard armor conditioning	
Soft armor Panel Size (If used)	Plate Size
C-2	250x300
NIJ Armor Type:	3
Shots Per Plate (Type IV only):	6

NVLAP Lab Code: 200825-0

Test Laboratory Name: H.P. White Laboratory

Report Identification Number: 11697-36

Issue / Revision Number:

Test ID: MKU10-001973

Manufacturer: MKU PVT. LIMITED

Test Velocity: 847.3 ±9.1 m/s

(2780) ±30 ft/s

Report Date: 12/20/2012

Ballistic Limit Summary Data

Ammunition: 7.62mm 147/FMJ

Key to Remarks:
a - Too close to edge
b - Too close to prior impact
c - Impact on seam

Sample Information				Shot Number	Avg. Vel. (ft/s)	Perf (Y=1N=0)	Remarks
Sample Number	Soft Armor Panel	Hard Armor Plate	Gross Weight (lbs)				
1	1 T-4040	1 C-2790	7.05	1	2752	0	
1	1 T-4040	1 C-2790	7.05	2	2844	0	
1	1 T-4040	1 C-2790	7.05	3	2859	0	
1	1 T-4040	1 C-2790	7.05	4	2962	0	
1	1 T-4040	1 C-2790	7.05	5	2966	0	
1	1 T-4040	1 C-2790	7.05	6	3081	0	
2	1 T-4041	1 C-2791	7.06	7	3133	0	
2	1 T-4041	1 C-2791	7.06	8	3224	0	
2	1 T-4041	1 C-2791	7.06	9	3305	0	
2	1 T-4041	1 C-2791	7.06	10	3401	0	
2	1 T-4041	1 C-2791	7.06	11	3475	1	
2	1 T-4041	1 C-2791	7.06	12	3444	1	
3	1 T-4042	1 C-2792	7.06	13	2752	0	
3	1 T-4042	1 C-2792	7.06	14	2793	0	
3	1 T-4042	1 C-2792	7.06	15	2910	0	
3	1 T-4042	1 C-2792	7.06	16	3021	0	
3	1 T-4042	1 C-2792	7.06	17	3123	0	
3	1 T-4042	1 C-2792	7.06	18	3243	0	
4	1 T-4043	1 C-2793	7.06	19	3320	0	
4	1 T-4043	1 C-2793	7.06	20	3381	0	
4	1 T-4043	1 C-2793	7.06	21	3475	0	
4	1 T-4043	1 C-2793	7.06	22	3541	1	
4	1 T-4043	1 C-2793	7.06	23	3509	1	
4	1 T-4043	1 C-2793	7.06	24	3475	1	
5				25			
5				26			
5				27			
5				28			
5				29			
5				30			

Armor Information

Plate Subjected to hard armor conditioning

Soft armor Panel Size (If used)

Plate Size

C-2

250x300

NIJ Armor Type:

3

Shots Per Plate (Type IV only):

6

Regression Analysis

Estimated V05:

1030 m/s

(3379) ft/s

Estimated V50:

1049.8 m/s

3444 ft/s

Probability of perforation at NIJ reference velocity: 847.3 m/sec (2780 ft/s)

0.0% Acceptable

NIJ Reference Velocity

847.3 m/s

(2780 ft/s)

Offset

+ 9.1 m/s

+ (30 ft/s)

856.4 m/s

(2810 ft/s)

Perforations below 856.4 m/s (2810 ft/s):

0 Acceptable

Total Usable Shots:

24

Acceptable

Perforations (Complete Penetrations):

5

Stops (Partial Penetrations):

19

Regression Model

Logistic

Test Data and Regression Model

♦ Data

— V Ref.

— VTest + 9.1

— Est. Response

--- Est. V50

--- Est. V05

Overall Ballistic Limit Summary

Perforations below Vref + 9.1 m/sec: 0

This armor model meets the low perforation velocity performance requirements of NIJ Standard-0101.06 Section 7.9.5.

Probability of perforation at the P-BFS reference velocity 0.0% This requirement is for all Ballistic Limit tested samples

This armor model meets the estimated V05 performance requirements of NIJ Standard-0101.06 Section 7.9.5.

Compliance Test Report revision Hard Armor 1-11 (2012-03-30) / MS Excel version 14.0 / Operating System version Windows (32-bit) NT 5.01

This is Revision Number: 04

Revision Date: 8/3/2009

Document Status:

Official NIJ-Approved Test Laboratory Compliance Testing Report (CTR)

This CTR is to be used only with testing associated with NIJ Body Armor Compliance Testing Program (CTP) and should not be distributed to any unauthorized parties.

Do not modify this document. If problems or issues with this CTR are discovered please contact the CTP so they can be resolved.

GENERAL INSTRUCTIONS:

1. These worksheets are intended as a method of recording and documenting ballistic test results from tests performed to the requirements of NIJ Standard-0101.06 for body armor models that will be part of the NIJ body armor conformity testing program.
 2. In general, gray shaded cells are intended to be filled in by the test laboratory. All other cells are automatic calculations and should not be changed. Some shaded cells will fill in automatically; however, these cells may be manually filled in when necessary.
 3. Many of the worksheets have their own instructions at the top of the sheet.
 4. To fully utilize these spreadsheets, the R statistical package and the RExcel statistics connector will need to be installed on the computer where this spreadsheet is used. These packages are not necessary for running a test or inputting data, but the ballistic limit summary ("BL Summary" worksheet) will not be completely calculated unless these packages are properly installed. Detailed instructions for obtaining and installing these packages is provided in the worksheet "Stats Install Instructions".
 5. The laboratory may choose to modify the print header on the data and summary pages to include their name, logo, and applicable accreditation information.
 6. The worksheet "Laboratory and Armor" should be filled in with the details of the test configuration and armor model.
 7. The worksheet "Sample Information" should be filled in with the details of the individual armor samples that will be tested as part of the conformity test.
 8. The worksheet "Handloads" can be used to record handload development data for each of the P-BFS test rounds. This worksheet is optional.
 9. The worksheets "P-BFS..." are intended for recording the test results from each P-BFS sample. These worksheets are initially all identical. Many of the cells that fill in automatically are filled in based on the name of the worksheet. When necessary, these sheets may be deleted and replaced by copying the worksheet "P-BFS Spare" and renaming the new copy. The name of each P-BFS sheet has the following form:
P-BFS <Condition> T<Threat Number> S<Sample Number>
Where:
 <Condition> is either "New" for as manufactured sampled or "Cond" for environmental conditioned samples.
 <Threat Number> is the test round number from Table 4 in NIJ-0101.06.
 <Sample Number> is the armor sample number as listed in the "Sample Information" worksheet. This number should always be listed as a two digit number, i.e. "02" instead of "2", in the worksheet name.
 10. The worksheets "BL..." are intended for recording the test results from each ballistic limit sample. These worksheets are initially all identical. Many of the cells that fill in automatically are filled in based on the name of the worksheet. When necessary, these sheets may be deleted and replaced by copying the worksheet "BL Spare" and renaming the new copy. The name of each BL sheet has the following form:
BL <Condition> T<Threat Number> S<Sample Number>
Where:
 <Condition> is either "New" for as manufactured sampled or "Cond" for environmental conditioned samples.
 <Threat Number> is the test round number from Table 4 in NIJ-0101.06.
 <Sample Number> is the armor sample number as listed in the "Sample Information" worksheet. This number should always be listed as a two digit number, i.e. "02" instead of "2", in the worksheet name.
 11. The worksheets "P-BFS Summary" and "BL Summary" are automatically generated summaries of the respective test results. No input is required on this sheet, but these sheets will indicate whether the armor model meets the performance requirements of NIJ-0101.06.
-

INSTRUCTIONS FOR INSTALLING R AND THE REXCEL STATISTICS CONNECTOR:

Requirements:

The ballistic limit summary worksheet in this spreadsheet requires the "R" statistics package and the "Rexcel" statistics connector for calculating the logistic regression, the V50, and the V05 response.

To use this spreadsheet you will need to have the following software installed:

Microsoft Excel (version 2002 or newer).

The R statistical analysis package (version 2.2.1 or newer).

The R(D)com server (version 2.01 or newer).

The RExcel add-in for MS Excel (version 1.50 or newer).

The R statistical package, R(D)com server, and RExcel are all free software licensed under variants of the GNU General Public License (GPL). These packages should accompany this document, or they may be downloaded from the following locations:

R is available from <http://www.r-project.org/>

Specifically, the current version (2.8.1) can be downloaded from:

<http://cran.cnr.berkeley.edu/bin/windows/base/R-2.8.1-win32.exe>

<http://cran.cnr.berkeley.edu/bin/windows/base/README.R-2.8.1>

R(D)Com and Rexcel are available at:

<http://sunsite.univie.ac.at/rcom/download/current/>

Specifically, the current versions can be downloaded from:

http://sunsite.univie.ac.at/rcom/download/current/RSrv250_pl1.exe

or:

<http://sunsite.univie.ac.at/rcom/download/current/RSrv250S.zip>

(Note that RExcel is included in RSrv250_pl1.exe)

Additional information about R(D)Com and Rexcel is available from:

<http://sunsite.univie.ac.at/rcom/>

Installation:

1. Install Microsoft Excel, if it is not already installed on the computer.
2. Install R by running R-2.7.1-win32.exe (or a newer version). Accept the default installation options.
3. Install the R(D)Com server and RExcel by running RSrv250_pl1.exe (or a newer version). Again, accept the default installation options.

Test the installation by starting Excel and selecting "RExcel" on the main menu (If the RExcel add-in is properly installed, the RExcel menu item should appear between "Window" and "Help" on the Excel menu bar). Select "Demo Worksheets" and "Interactive Graphics". The demo spreadsheet should load and automatically generate a chart titled "A Test", which can be changed and regenerated by adjusting the sliders in the spreadsheet.

When R and RExcel are properly installed, this spreadsheet will automatically calculate the logistic response curve, V50, and V05 for a set of ballistic limit test data. In addition, the installed versions of R and Excel will appear on both the "Laboratory and Armor" and "BL Summary" worksheets.

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

COMPLIANCE TESTING INFORMATION

FACILITY DESCRIPTION:Test Laboratory: **H.P. WHITE LABORATORY**
 Test Start Date: **10/03/11**
 End Date: **10/07/11**
Report Number: **11697-22**Report Date: **10/12/11****TESTING CERTIFICATION:**Laboratory Representative: **J.CONTRERAS, M.GOMEZ**
 Witnessed by: **MANISH KHANDELWAL** Name
MKU Pvt. Ltd. Representing

 & witnessed by: **THOMAS HOLMES** Name
MKU Pvt. Ltd. Representing
RANGE INFORMATION:Range Length: **17.20** ft.Velocity 1: **5.00** ft.Velocity 2: **5.00** ft.Velocity Measurement Units: **TIME**

Chronographs will report the time of flight.

Data should be entered in μs (10^{-6} s).**ARMOR DESCRIPTION:**Manufacturer: **MKU Pvt. Ltd.**Date Rec'd: **09/08/11***Ballistic Material: **ARAMID**Test ID: **MKU10-001840**Style: **N/A**Model Designation: **MKS-1002**Armor Style: **VEST**NIJ Armor Type: **3A*****Ballistic Material Choices**

<i>Aramid</i>	<i>PBO</i>	<i>Ceramic</i>	<i>Metal</i>
<i>Polyethylene</i>	<i>Hybrid</i>	<i>Composite</i>	<i>Other</i>

Shot-to-Edge Requirements:
 Threat 1: **2** Inches
 Threat 2: **3** Inches
Labels meet requirements of section 4.1.5.3: **YES** (Yes/No)**ARMOR CONSTRUCTION:****Front Panel**Front Closure (Y/N): **N**Removable Carrier (Y/N): **Y**Number of Layers: **39**
 Description of Stitching: **LAYERS 1-20, 21-35, AND 37-39 PERIMETER STITCH.
 LAYERS 1-35 PERIMETER STITCH.
 LAYERS 1-20 2.4" DIAMOND QUILT STITCH.
 LAYERS 21-35 1.6" DIAMOND QUILT STITCH.
 LAYERS 37-39 1.20" DIAMOND QUILT STITCH.
 LAYERS 1-20, 21-35 AND 37-39, WITH COTTON STRIP AROUND THE EDGE.**

 Individual Layer Description: **LAYERS 1-35 AND 37-39, FLEX WOVEN ARAMID FIBER (22X22).
 LAYER 36, COATED FLEX WOVEN ARAMID FIBER (22X22).**
Rear Panel**N****Y****39**
 Description of Stitching: **LAYERS 1-20, 21-35 AND 37-39 PERIMETER STITCH.
 LAYERS 1-35 PERIMETER STITCH.
 LAYERS 1-20, 2.4" DIAMOND QUILT STITCH.
 LAYERS 21-35, 1.6" DIAMOND QUILT STITCH.
 LAYERS 37-39, 1.20" DIAMOND QUILT STITCH.
 LAYERS 1-20, 21-35 AND 37-39, WITH COTTON STRIP AROUND THE EDGE.**

 Individual Layer Description: **LAYERS 1-35 AND 37-39, FLEX WOVEN ARAMID FIBER (22X22).
 LAYER 36, COATED FLEX WOVEN ARAMID FIBER (22X22).**
REMARKS: STRAPPING: 2 VERTICAL, 3 HORIZONTAL.
 CARRIER IS HEAT SEALED.

 ALL SAMPLES TESTED ON A PLANAR CONFIGURATION.
 SAMPLES 23 AND 24, WERE TESTED USING NEW ARMOR TEST VELOCITIES. WHEN THEY SHOULD HAVE BEEN TESTED USING THE CONDITIONED ARMOR TEST VELOCITIES.

NATIONAL INSTITUTE OF JUSTICE
COMPLIANCE TEST REPORT

Sample Information and Description

Armors in "As-New" Condition

Manufacturer: MKU Pvt. Ltd.				Test ID: MKU10-001840				Model Designation: MKS-1002				Armor Style: VEST				NIJ Type: 3A							
SAMPLE DESCRIPTION		Penetration-Backface Signature (P-BFS) Test Samples																		Spare Samples			
		Sample 1		Sample 2		Sample 3		Sample 4		Sample 5		Sample 6		Sample 7		Sample 8		Sample 9		Sample 10			
		Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back		
		C5	C5	C5	C5	C3	C3	C3	C3	C5	C5	C5	C5	C3	C3	C3	C3	C5	C5	C5	C5		
		Panel Serial Number:	T 3525 F	T 3521 B	T 3521 F	T 3524 B	T 3519 F	T 3517 B	T 3518 F	T 3518 B	T 3262 F	T 3269 B	T-3254 F	T 3265 B	T 3281 F	T 3280 B	T 3278 F	T 3282 B	T 3271 F	T 3261 B	T 3564 F	T 3272 B	
		Plate Serial Number:	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	N/A	N/A	N/A	N/A	N/A	N/A	
		Lot Number:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		Gross Weight (lb.):	5.35	6.06	5.43	6.07	3.34	3.83	3.36	3.78	5.35	5.96	5.33	5.95	3.34	3.78	3.31	3.76	5.37	5.98	5.35	5.97	
		TEST DESCRIPTION																					
		Water Submersion:	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Threat Ammunition:	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag							
Bullet (grain/type):	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP							
Reference Velocity (ft/s):	1470	1470	1470	1470	1470	1470	1470	1470	1470	1430	1430	1430	1430	1430	1430	1430							
Angle at Location #4:	30	45	45	30	30	45	45	30	30	45	45	30	30	45	45	30							
THREAT DESCRIPTION																							
Bullet Manufacturer:	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER							
Bullet Lot/Product Number:	4362	4362	4362	4362	4362	4362	4362	4362	4362	M0817	M0817	M0817	M0817	M0817	M0817	M0817							
Test Barrel Manufacturer:	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.							
Test Barrel Length (in):	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0							

Manufacturer: 0				Test ID: MKU10-001840				Model Designation: MKS-1002				Armor Style: 0				NIJ Type: 0												
SAMPLE DESCRIPTION	Baseline Ballistic Limit - Threat 1																				Baseline Ballistic Limit - Threat 2							
	Sample 11		Sample 12		Sample 13		Sample 14		Sample 15		Sample 16		Sample 17		Sample 18		Sample 19		Sample 20									
	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back								
	Size:	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5	C5								
	Panel Serial Number:	T 3270 F	T 3268 B	T 3273 F	T 3260 B	T 3253 F	T 3257 B	T 3259 F	T 3258 B	T 3268 F	T 3271 B	T 3522 F	T 3522 B	T 3524 F	T3523 B	T 3526 F	T 3525 B	T 3520 F	T 3520 B	T 3523 F	T 3526 B							
	Plate Serial Number:	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	N/A	N/A	N/A	N/A	N/A	N/A							
	Lot Number:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
	Gross Weight (lb.):	5.35	6.01	5.36	6.01	5.37	5.98	5.37	5.99	5.38	5.99	5.40	6.02	5.40	6.02	5.41	6.04	5.42	5.99	5.37	6.02							
	TEST DESCRIPTION																											
	Water Submersion:	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No								
Threat Ammunition:	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.44 Mag									
Bullet (grain/type):	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	125/FMJ	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP	240/SJHP									
Test Starting Velocity (ft/s):	1470	1470	1470	1470	1470	1470	1470	1470	1470	1470	1430	1430	1430	1430	1430	1430	1430	1430	1430									
Shots on Panel:	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12									
THREAT DESCRIPTION																												
Bullet Manufacturer:	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER									
Bullet Lot/Product Number:	4362	4362	4362	4362	4362	4362	4362	4362	4362	4362	M0817	M0817	M0817	M0817	M0817	M0817	M0817	M0817	M0817									
Test Barrel Manufacturer:	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.									
Test Barrel Length (in):	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0									

Environmental Conditioned Armors

Manufacturer: MKU Pvt. Ltd.				Test ID: MKU10-001840				Model Designation: MKS-1002				Armor Style: 0				NIJ Type: 0					
SAMPLE DESCRIPTION	Penetration-Backface Signature (P-BFS) Test Samples								Ballistic Limit				Spare Samples								
	Sample 21		Sample 22		Sample 23		Sample 24		Sample 25		Sample 26		Sample 27		Sample 28						
	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	
	C5	C5	C3	C3	C5	C5	C3	C3	C5	C5	C5	C5	C5	C5	C5	C5					
	Panel Serial Number:	T 3266 F	T 3267 B	T 3282 F	T 3279 B	T 3255 F	T 3256 B	T 3279 F	T 3278 B	T 3261 F	T 3254 B	T 3260 F	T 3263 B	T 3256 F	T 3262 B	T 3263 F	T 3274 B				
	Plate Serial Number:	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	N/A	N/A				
TEST DESCRIPTION	Lot Number:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
	Gross Weight (lb.):	5.37	6.06	3.33	3.77	5.37	5.99	3.31	3.77	5.37	6.01	5.36	6.01	5.38	5.99	5.37	5.98				
	Water Submersion:	No	No	No	No	No	No	No	No	No	No	No	No								
	Threat Ammunition:	.357 SIG	.357 SIG	.357 SIG	.357 SIG	.44 Mag	.44 Mag	.44 Mag	.44 Mag	.357 SIG	.357 SIG	.44 Mag	.44 Mag								
	Bullet (grain/type):	125/FMJ	125/FMJ	125/FMJ	125/FMJ	240/SJHP	240/SJHP	240/SJHP	240/SJHP	125/FMJ	125/FMJ	240/SJHP	240/SJHP								
	Test Velocity (ft/s):	1410	1410	1410	1410	1340	1340	1340	1340	1410	1410	1340	1340								
Angle at Loc #4/Shots on Panel:	30	45	45	30	30	45	45	30	30	45	45	30									
THREAT DESCRIPTION																					
	Bullet Manufacturer:	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER	SPEER								
	Bullet Lot/Product Number:	4362	4362	4362	4362	M0817	M0817	M0817	M0817	4362	4362	M0817	M0817								
	Test Barrel Manufacturer:	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.	H.P.W.L.I.								
	Test Barrel Length (in):	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0								

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

HANDLOAD VERIFICATION WORKSHEET

This form is not required and may be substituted with appropriate internal laboratory documentation.

 Report Number: 11697-22
 NIJ Armor Type: 3A

 Report Date: 10/12/11

 Range Length: 17.20 ft.

 Velocity 1: 5.00 ft.
 Velocity 2: 5.00 ft.

New Armor - Test Round 1							New Armor - Test Round 2						
Ammunition: .357 SIG 125/FMJ			Test Date:				Ammunition: .44 Mag 240/SJHP			Test Date:			
Temp: <u> </u> F			RH: <u> </u> %				Temp: <u> </u> F			RH: <u> </u> %			
Shot No.	Charge (grain)	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Shot No.	Charge (grain)	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)
1			0		0		1		3491	1432	3486	1434	1433
2			0		0		2			0		0	
3			0		0		3			0		0	
4			0		0		4			0		0	
5			0		0		5			0		0	
6			0		0		6			0		0	
7			0		0		7			0		0	
8			0		0		8			0		0	
9			0		0		9			0		0	
10			0		0		10			0		0	

Mean:

Mean:

Mean:

Mean: 1433

New Armor - Test Round 1

 NIJ Reference Velocity: 1470 ft/s
 Handload (NIJ Reference $\pm$ 10 ft/s): Invalid ft/s
 Range (NIJ Reference $\pm$ 30 ft/s): 1440 1500 ft/s

New Armor - Test Round 2

 NIJ Reference Velocity: 1430 ft/s
 Handload (NIJ Reference $\pm$ 10 ft/s): 1433 ft/s
 Range (NIJ Reference $\pm$ 30 ft/s): 1400 1460 ft/s

 Velocity Summary:

Min	Max
0	0

 ft/s

 Velocity Summary:

Min	Max
1433	1433

 ft/s

Conditioned Armor - Test Round 1							Conditioned Armor - Test Round 2						
Ammunition: .357 SIG 125/FMJ			Test Date:				Ammunition: .44 Mag 240/SJHP			Test Date:			
Temp: <u> </u> F			RH: <u> </u> %				Temp: <u> </u> F			RH: <u> </u> %			
Shot No.	Charge (grain)	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Shot No.	Charge (grain)	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)
1			0		0		1			0		0	
2			0		0		2			0		0	
3			0		0		3			0		0	
4			0		0		4			0		0	
5			0		0		5			0		0	
6			0		0		6			0		0	
7			0		0		7			0		0	
8			0		0		8			0		0	
9			0		0		9			0		0	
10			0		0		10			0		0	

Mean:

Mean:

Mean:

Mean:

Conditioned Armor - Test Round 1

 NIJ Reference Velocity: 1410 ft/s
 Handload (NIJ Reference $\pm$ 10 ft/s): Invalid ft/s
 Range (NIJ Reference $\pm$ 30 ft/s): 1380 1440 ft/s

Conditioned Armor - Test Round 2

 NIJ Reference Velocity: 1340 ft/s
 Handload (NIJ Reference $\pm$ 10 ft/s): Invalid ft/s
 Range (NIJ Reference $\pm$ 30 ft/s): 1310 1370 ft/s

 Velocity Summary:

Min	Max
0	0

 ft/s

 Velocity Summary:

Min	Max
0	0

 ft/s

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Penetration and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): M.GOMEZ
 Laboratory Range #: 1 Velocity 2: 5.00 ft. J.CONTRERAS

Sample 1

Front Panel

Panel Serial No: T 3525 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B3
 Time of Day: 10:06 HH:mm
 Clay Temperature: 98.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	19	19	20	19.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 65 F	Start: 1:20 HH:mm	Start: 2:00 HH:mm
Rel. Humidity:	51 51 %	End: 1:50 HH:mm	End: 2:10 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3392	1474	3392	1474	1474	0°	Y	0		24	
2	3405	1468	3401	1470	1469	0°	Y	0		24	
3	3387	1476	3383	1478	1477	0°	Y	0		24	
4	3392	1474	3387	1476	1475	30°	Y	0			
5	3414	1465	3410	1466	1465	45°	Y	0			
6	3374	1482	3369	1484	1483	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Penetration and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): M.GOMEZ
 Laboratory Range #: 1 Velocity 2: 5.00 ft. J.CONTRERAS

Sample 1

Back Panel

Panel Serial No: T 3521 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B3
 Time of Day: 2:10 HH:mm
 Clay Temperature: 97.7 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	18	19	19	19.0
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	68 69 F	Start: 1:40 HH:mm	Start: 2:20 HH:mm
Rel. Humidity:	55 55 %	End: 2:10 HH:mm	End: 2:30 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3378	1480	3378	1480	1480	0°	Y	0		23	
2	3410	1466	3410	1466	1466	0°	Y	0		23	
3	3405	1468	3405	1468	1468	0°	Y	0		23	
4	3410	1466	3405	1468	1467	45°	Y	0			
5	3414	1465	3410	1466	1465	30°	Y	0			
6	3387	1476	3383	1478	1477	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R1B3
 Time of Day: 2:30 HH:mm
 Clay Temperature: 96.2 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	19	18	19	19	18	18.6
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/04/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 2

Front Panel

Panel Serial No: T 3521 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 2:50 HH:mm
 Clay Temperature: 98.1 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	20	20	19	21	20.2
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	65 66 F	Start: 2:20 HH:mm	Start: 3:00 HH:mm
Rel. Humidity:	52 52 %	End: 2:50 HH:mm	End: 3:10 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3374	1482	3374	1482	1482	0°	Y	0		23	
2	3410	1466	3405	1468	1467	0°	Y	0		23	
3	3419	1462	3419	1462	1462	0°	Y	0		24	
4	3419	1462	3414	1465	1463	45°	Y	0			
5	3410	1466	3410	1466	1466	30°	Y	0			
6	3401	1470	3396	1472	1471	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/04/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 2

Back Panel

Panel Serial No: T 3524 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1B1
 Time of Day: 3:05 HH:mm
 Clay Temperature: 97.4 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	20	20	19	21	20.0
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	65 65 F	Start: 2:35 HH:mm	Start: 3:15 HH:mm
Rel. Humidity:	50 52 %	End: 3:05 HH:mm	End: 3:25 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3450	1449	3441	1453	1451	0°	Y	0		24	
2	3374	1482	3369	1484	1483	0°	Y	0		24	
3	3369	1484	3365	1486	1485	0°	Y	0		24	
4	3401	1470	3401	1470	1470	30°	Y	0			
5	3378	1480	3374	1482	1481	45°	Y	0			
6	3378	1480	3374	1482	1481	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: R1B1
 Time of Day: 3:25 HH:mm
 Clay Temperature: 96.7 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	18	19	19	19	18	18.6
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/04/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 3

Front Panel

Panel Serial No: T 3519 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 8:55 HH:mm
 Clay Temperature: 99.4 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	21	20	19	20	20.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	66 66 F	Start: 8:20 HH:mm	Start: 9:05 HH:mm
Rel. Humidity:	51 51 %	End: 8:50 HH:mm	End: 9:15 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3378	1480	3374	1482	1481	0°	Y	0		26	
2	3365	1486	3360	1488	1487	0°	Y	0		26	
3	3392	1474	3392	1474	1474	0°	Y	0		25	
4	3383	1478	3387	1476	1477	30°	Y	0			
5	3378	1480	3369	1484	1482	45°	Y	0			
6	3392	1474	3387	1476	1475	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/04/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 3

Back Panel

Panel Serial No: T 3517 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 9:15 HH:mm
 Clay Temperature: 98.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	22	18	21	20	21	20.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	66 66 F	Start: 8:40 HH:mm	Start: 9:25 HH:mm
Rel. Humidity:	51 51 %	End: 9:10 HH:mm	End: 9:35 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3392	1474	3387	1476	1475	0°	Y	0		25	
2	3423	1461	3419	1462	1462	0°	Y	0		25	
3	3410	1466	3405	1468	1467	0°	Y	0		25	
4	3410	1466	3401	1470	1468	45°	Y	0			
5	3378	1480	3374	1482	1481	30°	Y	0			
6	3383	1478	3378	1480	1479	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 9:40 HH:mm
 Clay Temperature: 96.3 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	17	19	18	18	18.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/04/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 4

Front Panel

Panel Serial No: T 3518 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B2
 Time of Day: 10:00 HH:mm
 Clay Temperature: 99.1 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	20	20	21	20.0
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	66 66 F	Start: 9:40 HH:mm	Start: 10:20 HH:mm
Rel. Humidity:	51 51 %	End: 10:10 HH:mm	End: 10:30 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3387	1476	3387	1476	1476	0°	Y	0		22	
2	3387	1476	3383	1478	1477	0°	Y	0		27	
3	3369	1484	3360	1488	1486	0°	Y	0		23	
4	3414	1465	3410	1466	1465	45°	Y	0			
5	3392	1474	3396	1472	1473	30°	Y	0			
6	3383	1478	3383	1478	1478	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/04/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1470 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 4

Back Panel

Panel Serial No: T 3518 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B2
 Time of Day: 10:25 HH:mm
 Clay Temperature: 98.8 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	21	21	20	19	20.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	66 66 F	Start: 10:05 HH:mm	Start: 10:45 HH:mm
Rel. Humidity:	55 55 %	End: 10:35 HH:mm	End: 10:55 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3401	1470	3405	1468	1469	0°	Y	0		24	
2	3396	1472	3392	1474	1473	0°	Y	0		23	
3	3396	1472	3396	1472	1472	0°	Y	0		23	
4	3396	1472	3392	1474	1473	30°	Y	0			
5	3419	1462	3414	1465	1463	45°	Y	0			
6	3387	1476	3383	1478	1477	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 11:00 HH:mm
 Clay Temperature: 96.9 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	19	18	18	18.8
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 5

Front Panel

Panel Serial No: T 3262 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B3
 Time of Day: 1:30 HH:mm
 Clay Temperature: 99.3 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	19	21	20	19.8
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	69 69 F	Start: 1:00 HH:mm	Start: 1:45 HH:mm
Rel. Humidity:	55 55 %	End: 1:30 HH:mm	End: 1:55 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3464	1443	3459	1446	1444	0°	Y	0		33	
2	3513	1423	3504	1427	1425	0°	Y	0		36	
3	3527	1418	3522	1420	1419	0°	Y	0		36	
4	3500	1429	3495	1431	1430	30°	Y	0			
5	3522	1420	3518	1421	1420	45°	Y	0			
6	3464	1443	3464	1443	1443	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 5

Back Panel

Panel Serial No: T 3269 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B3
 Time of Day: 2:00 HH:mm
 Clay Temperature: 96.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	20	21	21	20	20.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	69 70 F	Start: 1:30 HH:mm	Start: 2:10 HH:mm
Rel. Humidity:	55 56 %	End: 2:00 HH:mm	End: 2:20 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3464	1443	3464	1443	1443	0°	Y	0		32	
2	3446	1451	3441	1453	1452	0°	Y	0		34	
3	3531	1416	3527	1418	1417	0°	Y	0		35	
4	3563	1403	3558	1405	1404	45°	Y	0			
5	3410	1466	3405	1468	1467	30°	Y	0			
6	3405	1468	3401	1470	1469	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R1B3
 Time of Day: 2:25 HH:mm
 Clay Temperature: 97.0 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	19	19	18	18	18	18.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/10

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 6

Front Panel

Panel Serial No: T-3254 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 2:45 HH:mm
 Clay Temperature: 98.6 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	21	20	20	21	20.6
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	70 70 F	Start: 2:05 HH:mm	Start: 2:50 HH:mm
Rel. Humidity:	55 55 %	End: 2:35 HH:mm	End: 3:00 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3432	1457	3428	1459	1458	0°	Y	0		34	
2	3473	1440	3468	1442	1441	0°	Y	0		39	
3	3459	1446	3455	1447	1446	0°	Y	0		36	
4	3473	1440	3468	1442	1441	45°	Y	0			
5	3455	1447	3450	1449	1448	30°	Y	0			
6	3441	1453	3432	1457	1455	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/10

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 6

Back Panel

Panel Serial No: T 3265 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 3:05 HH:mm
 Clay Temperature: 97.2 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	21	21	20	20	20.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	70 70 F	Start: 2:40 HH:mm	Start: 3:20 HH:mm
Rel. Humidity:	57 57 %	End: 3:10 HH:mm	End: 3:30 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3459	1446	3455	1447	1446	0°	Y	0		33	
2	3455	1447	3450	1449	1448	0°	Y	0		35	
3	3419	1462	3410	1466	1464	0°	Y	0		34	
4	3504	1427	3500	1429	1428	30°	Y	0			
5	3500	1429	3495	1431	1430	45°	Y	0			
6	3464	1443	3459	1446	1444	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 3:35 HH:mm
 Clay Temperature: 96.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	20	20	20	21	20.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Penetration and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): M.GOMEZ
 Laboratory Range #: 1 Velocity 2: 5.00 ft. J.CONTRERAS

Sample 7

Front Panel

Panel Serial No: T 3281 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 10:07 HH:mm
 Clay Temperature: 98.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	20	19	19	20	19.6
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 67 F	Start: 9:30 HH:mm	Start: 10:10 HH:mm
Rel. Humidity:	51 51 %	End: 10:00 HH:mm	End: 10:20 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3527	1418	3522	1420	1419	0°	Y	0		35	
2	3531	1416	3522	1420	1418	0°	Y	0		36	
3	3477	1438	3473	1440	1439	0°	Y	0		36	
4	3500	1429	3500	1429	1429	30°	Y	0			
5	3513	1423	3509	1425	1424	45°	Y	0			
6	3504	1427	3495	1431	1429	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Penetration and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): M.GOMEZ
 Laboratory Range #: 1 Velocity 2: 5.00 ft. J.CONTRERAS

Sample 7

Back Panel

Panel Serial No: T 3280 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 10:25 HH:mm
 Clay Temperature: 96.8 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	19	20	20	21	20.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 67 F	Start: 10:05 HH:mm	Start: 10:45 HH:mm
Rel. Humidity:	51 51 %	End: 10:35 HH:mm	End: 10:55 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3495	1431	3491	1432	1431	0°	Y	0		32	
2	3459	1446	3455	1447	1446	0°	Y	0		35	
3	3549	1409	3545	1410	1410	0°	Y	0		36	
4	3621	1381	3612	1384	1383	45°	Y	0	b		
5	3509	1425	3500	1429	1427	30°	Y	0			
6	3504	1427	3500	1429	1428	0°	Y	0			
7	3482	1436	3477	1438	1437	45°	Y	0			SHOT TO REPLACE SHOT 4
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R1B1
 Time of Day: 10:50 HH:mm
 Clay Temperature: 95.6 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	18	17	20	17	18	18.0
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 8

Front Panel

Panel Serial No: T 3278 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1B2
 Time of Day: 11:05 HH:mm
 Clay Temperature: 99.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	20	19	21	20	20.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 67 F	Start: 10:30 HH:mm	Start: 11:10 HH:mm
Rel. Humidity:	51 51 %	End: 11:00 HH:mm	End: 11:20 HH:mm
		Duration: 30 min	Duration: 10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3509	1425	3504	1427	1426	0°	Y	0		37	
2	3477	1438	3473	1440	1439	0°	Y	0		35	
3	3464	1443	3464	1443	1443	0°	Y	0		36	
4	3509	1425	3500	1429	1427	45°	Y	0			
5	3464	1443	3464	1443	1443	30°	Y	0			
6	3482	1436	3473	1440	1438	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1430 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: Yes

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): J. CONTRERAS
 Laboratory Range #: R1 Velocity 2: 5.00 ft. M. GOMEZ

Sample 8

Back Panel

Panel Serial No: T 3282 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1B2
 Time of Day: 11:25 HH:mm
 Clay Temperature: 99.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	21	19	20	20	19	19.8
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 69 F	Start: 10:50 HH:mm	Start: 11:30 HH:mm
Rel. Humidity:	51 51 %	End: 11:20 HH:mm	End: 11:40 HH:mm
		Duration: 30 min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3513	1423	3513	1423	1423	0°	Y	0		34	
2	3455	1447	3450	1449	1448	0°	Y	0		36	
3	3441	1453	3432	1457	1455	0°	Y	0		35	
4	3441	1453	3437	1455	1454	30°	Y	0			
5	3482	1436	3477	1438	1437	45°	Y	0			
6	3518	1421	3513	1423	1422	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: R1B2
 Time of Day: 11:44 HH:mm
 Clay Temperature: 97.8 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	19	20	19	19.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 11

Front Panel

Panel Serial No: T 3270 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER5

Time of Day: 10:40 HH:mm

/ Temperature: 99.7 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	19	19	21	21	20	20.0
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 68 F

Rel. Humidity: 54 %

Firing Sequence

Start: 10:45 HH:mm

End: 10:59 HH:mm

Duration: 14 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3414	1465	3414	1465	1465		X	Y	
2		3252	1538	3248	1539	1538		X	Y	
3		2928	1708	2928	1708	1708		X	Y	
4		2798	1787	2798	1787	1787	X		Y	
5		2888	1731	2888	1731	1731		X	Y	
6		2888	1731	2883	1734	1733		X	Y	
7		2766	1808	2762	1810	1809	X		Y	
8		2816	1776	2816	1776	1776	X		Y	
9		2879	1737	2879	1737	1737		X	Y	
10		2820	1773	2820	1773	1773		X	Y	
11		2721	1838	2717	1840	1839	X		Y	
12		2807	1781	2802	1784	1783	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 11

Back Panel

Panel Serial No: T 3268 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER5

Time of Day: 11:07 HH:mm

/ Temperature: 97.1 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	18	18	19	19	18	18.4
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 66 F

Rel. Humidity: 55 %

Firing Sequence

Start: 11:09 HH:mm

End: 11:21 HH:mm

Duration: 12 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3414	1465	3410	1466	1465		X	Y	
2		3054	1637	3054	1637	1637		X	Y	
3		2951	1694	2951	1694	1694		X	Y	
4		2766	1808	2762	1810	1809	X		Y	
5		2838	1762	2838	1762	1762		X	Y	
6		2780	1799	2780	1799	1799		X	Y	
7		2766	1808	2771	1804	1806		X	Y	
8		2712	1844	2712	1844	1844	X		Y	
9		2685	1862	2685	1862	1862		X	Y	
10		2690	1859	2690	1859	1859	X		Y	
11		2667	1875	2663	1878	1876	X		Y	
12		2667	1875	2667	1875	1875	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 12 Front Panel

Panel Serial No: T 3273 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1ER6
 Time of Day: 2:05 HH:mm
 / Temperature: 99.8 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	19	21	21	18	19.8
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 66 F
 Rel. Humidity: 54 %

Firing Sequence

 Start: 2:11 HH:mm
 End: 2:25 HH:mm
 Duration: 14 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3477	1438	3477	1438	1438		X	Y	
2		3203	1561	3198	1563	1562		X	Y	
3		2883	1734	2879	1737	1736	X		Y	
4		2996	1669	2996	1669	1669		X	Y	
5		2964	1687	2960	1689	1688		X	Y	
6		2901	1724	2901	1724	1724		X	Y	
7		2825	1770	2825	1770	1770		X	Y	
8		2649	1888	2645	1890	1889	X		Y	
9		2717	1840	2717	1840	1840	X		Y	
10		2757	1814	2757	1814	1814	X		Y	
11		2793	1790	2789	1793	1791	X		Y	
12		2879	1737	2879	1737	1737	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 6 6 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.

 Laboratory Range #: R1 Velocity 2: 5.00 ft.

 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 12

Back Panel

Panel Serial No: T 3260 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER6

Time of Day: 2:30 HH:mm

/ Temperature: 99.5 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	20	20	20	20	20.2
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 66 F

Rel. Humidity: 55 %

Firing Sequence

Start: 2:40 HH:mm

End: 2:55 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3369	1484	3369	1484	1484		X	Y	
2		3131	1597	3126	1599	1598		X	Y	
3		2873	1740	2969	1684	1712		X	Y	
4		2843	1759	2843	1759	1759	X		Y	
5		2978	1679	2978	1679	1679		X	Y	
6		2901	1724	2901	1724	1724		X	Y	
7		2793	1790	2798	1787	1789		X	Y	
8		2703	1850	2703	1850	1850		X	Y	
9		2645	1890	2640	1894	1892	X		Y	
10		2726	1834	2721	1838	1836	X		Y	
11		2690	1859	2685	1862	1860	X		Y	
12		2865	1745	2861	1748	1746		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 4 8 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 13 Front Panel

Panel Serial No: T 3253 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1ER4
 Time of Day: 3:10 HH:mm
 / Temperature: 99.5 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	22	18	18	21	21	20.0
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 65 F
 Rel. Humidity: 51 %

Firing Sequence

 Start: 3:15 HH:mm
 End: 3:27 HH:mm
 Duration: 12 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3459	1446	3455	1447	1446		X	Y	
2		3257	1535	3257	1535	1535		X	Y	
3		2946	1697	2946	1697	1697		X	Y	
4		2784	1796	2784	1796	1796	X		Y	
5		2883	1734	2883	1734	1734		X	Y	
6		2834	1764	2834	1764	1764		X	Y	
7		2762	1810	2762	1810	1810	X		Y	
8		2843	1759	2843	1759	1759		X	Y	
9		2721	1838	2721	1838	1838		X	Y	
10		2663	1878	2663	1878	1878	X		Y	
11		2721	1838	2717	1840	1839	X		Y	
12		2789	1793	2789	1793	1793	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 13

Back Panel

Panel Serial No: T 3257 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 3:35 HH:mm

/ Temperature: 98.1 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	18	18	19	18	18	18.2
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 67 F

Rel. Humidity: 54 %

Firing Sequence

Start: 3:40 HH:mm

End: 3:53 HH:mm

Duration: 13 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3351	1492	3347	1494	1493		X	Y	
2		3068	1630	3063	1632	1631		X	Y	
3		2968	1685	2928	1708	1696		X	Y	
4		2730	1832	2726	1834	1833	X		Y	
5		2843	1759	2838	1762	1760		X	Y	
6		2834	1764	2834	1764	1764		X	Y	
7		2708	1846	2708	1846	1846	X		Y	
8		2829	1767	2829	1767	1767	X		Y	
9		2865	1745	2865	1745	1745		X	Y	
10		2901	1724	2901	1724	1724		X	Y	
11		2717	1840	2712	1844	1842	X		Y	
12		2762	1810	2762	1810	1810	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/07/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 14

Front Panel

Panel Serial No: T 3259 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 6:10 HH:mm

/ Temperature: 99.2 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	18	21	19	20	19.6
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 65 F

Rel. Humidity: 53 %

Firing Sequence

Start: 6:15 HH:mm

End: 6:30 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3401	1470	3396	1472	1471		X	Y	
2		3086	1620	3086	1620	1620		X	Y	
3		2964	1687	2964	1687	1687		X	Y	
4		2807	1781	2811	1779	1780		X	Y	
5		2708	1846	2708	1846	1846	X		Y	
6		2780	1799	2780	1799	1799		X	Y	
7		2766	1808	2766	1808	1808	X		Y	
8		2766	1808	2762	1810	1809	X		Y	
9		2928	1708	2924	1710	1709		X	Y	
10		2816	1776	2816	1776	1776		X	Y	
11		2757	1814	2757	1814	1814		X	Y	
12		2707	1847	2708	1846	1847	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 4 8 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/07/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.

 Laboratory Range #: R1 Velocity 2: 5.00 ft.

 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 14 Back Panel

Panel Serial No: T 3258 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 6:35 HH:mm

/ Temperature: 98.2 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	19	18	20	19	19	19.0
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 62 F

Rel. Humidity: 53 %

Firing Sequence

Start: 6:40 HH:mm

End: 6:55 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3405	1468	3401	1470	1469		X	Y	
2		3122	1602	3122	1602	1602		X	Y	
3		2969	1684	2964	1687	1685		X	Y	
4		2829	1767	2829	1767	1767	X		Y	
5		2906	1721	2906	1721	1721		X	Y	
6		2820	1773	2820	1773	1773	X		Y	
7		2951	1694	2951	1694	1694		X	Y	
8		2843	1759	2838	1762	1760		X	Y	
9		2816	1776	2811	1779	1777		X	Y	
10		2748	1820	2744	1822	1821	X		Y	
11		2811	1779	2811	1779	1779		X	Y	
12		2699	1853	2699	1853	1853	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 4 8 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/07/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 15 Front Panel

Panel Serial No: T 3268 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1ER5
 Time of Day: 7:05 HH:mm
 Temperature: 99.9 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	20	20	19	21	20.0
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 69 F
 Rel. Humidity: 52 %

Firing Sequence

 Start: 7:10 HH:mm
 End: 7:24 HH:mm
 Duration: 14 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3365	1486	3360	1488	1487		X	Y	
2		3140	1592	3135	1595	1594		X	Y	
3		2946	1697	2946	1697	1697		X	Y	
4		2838	1762	2834	1764	1763		X	Y	
5		2703	1850	2703	1850	1850	X		Y	
6		2771	1804	2775	1802	1803		X	Y	
7		2708	1846	2703	1850	1848	X		Y	
8		2789	1793	2789	1793	1793		X	Y	
9		2753	1816	2753	1816	1816	X		Y	
10		2834	1764	2834	1764	1764		X	Y	
11		2784	1796	2784	1796	1796		X	Y	
12		2739	1825	2730	1832	1828	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 4 8 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/07/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

 Sample 15
Back Panel

Panel Serial No: T 3271 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1ER5
 Time of Day: 7:29 HH:mm
 / Temperature: 97.9 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	18	18	20	19	19	18.8
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 69 F
 Rel. Humidity: 56 %

Firing Sequence

 Start: 7:34 HH:mm
 End: 7:47 HH:mm
 Duration: 13 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3477	1438	3473	1440	1439		X	Y	
2		3104	1611	3095	1616	1613		X	Y	
3		2991	1672	2991	1672	1672		X	Y	
4		2771	1804	2771	1804	1804	X		Y	
5		2892	1729	2892	1729	1729		X	Y	
6		2825	1770	2825	1770	1770		X	Y	
7		2784	1796	2784	1796	1796	X		Y	
8		2834	1764	2834	1764	1764	X		Y	
9		2834	1764	2834	1764	1764		X	Y	
10		2829	1767	2834	1764	1766	X		Y	
11		2829	1767	2829	1767	1767		X	Y	
12		2811	1779	2811	1779	1779	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 16

Front Panel

Panel Serial No: T 3522 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 9:30 HH:mm

/ Temperature: 99.2 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	17	18	18	18	19	18.0
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 65 F

Rel. Humidity: 52 %

Firing Sequence

Start: 9:40 HH:mm

End: 9:55 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3459	1446	3455	1447	1446		X	Y	
2		3167	1579	3158	1583	1581		X	Y	
3		3005	1664	2996	1669	1666	X		Y	
4		3122	1602	3113	1606	1604	X		Y	
5		3230	1548	3216	1555	1551		X	Y	
6		3180	1572	3171	1577	1575		X	Y	
7		3081	1623	3077	1625	1624	X		Y	
8		3176	1574	3167	1579	1577	X		Y	
9		3234	1546	3239	1544	1545		X	Y	
10		3180	1572	3171	1577	1575	X		Y	
11		3212	1557	3212	1557	1557		X	Y	
12		3194	1565	3194	1565	1565		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 16

Back Panel

Panel Serial No: T 3522 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 10:05 HH:mm

/ Temperature: 97.1 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	17	17	18	18	19	17.8
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 66 F

Rel. Humidity: 53 %

Firing Sequence

Start: 10:20 HH:mm

End: 10:35 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3414	1465	3401	1470	1467		X	Y	
2		3162	1581	3153	1586	1584	X		Y	
3		3404	1469	3492	1432	1450		X	Y	
4		3145	1590	3122	1602	1596	X		Y	
5		3419	1462	3419	1462	1462		X	Y	
6		3176	1574	3171	1577	1576	X		Y	
7		3297	1517	3288	1521	1519		X	Y	
8		3176	1574	3167	1579	1577		X	Y	
9		3248	1539	3239	1544	1542	X		Y	
10		3252	1538	3243	1542	1540		X	Y	
11		3180	1572	3167	1579	1576	X		Y	
12		3270	1529	3257	1535	1532		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

NIJ Standard-0101.06
July 2008

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
Laboratory Range #: R1 Velocity 2: 5.00 ft.
Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 17 Front Panel

Panel Serial No: T 3524 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER5
Time of Day: 10:45 HH:mm
/ Temperature: 99.6 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	20	20	19	19	19.8
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 65 F
Rel. Humidity: 54 %

Firing Sequence

Start: 10:53 HH:mm
End: 11:05 HH:mm
Duration: 12 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3644	1372	3644	1372	1372		X	Y	
2		3306	1512	3306	1512	1512		X	Y	
3		3117	1604	3104	1611	1607	X		Y	
4		3149	1588	3140	1592	1590	X		Y	
5		3396	1472	3392	1474	1473		X	Y	
6		3212	1557	3198	1563	1560		X	Y	
7		3257	1535	3243	1542	1538		X	Y	
8		3203	1561	3207	1559	1560		X	Y	
9		3126	1599	3117	1604	1602		X	Y	
10		3050	1639	3045	1642	1641	X		Y	
11		3149	1588	3140	1592	1590	X		Y	
12		3140	1592	3131	1597	1595	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

NIJ Standard-0101.06
July 2008

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
Laboratory Range #: R1 Velocity 2: 5.00 ft.
Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 17

Back Panel

Panel Serial No: T3523 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1BER5
Time of Day: 11:17 HH:mm
/ Temperature: 98.1 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	19	18	20	18	19.0
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 65 F
Rel. Humidity: 51 %

Firing Sequence

Start: 11:20 HH:mm
End: 11:34 HH:mm
Duration: 14 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3464	1443	3464	1443	1443		X	Y	
2		3279	1525	3279	1525	1525		X	Y	
3		3108	1609	3104	1611	1610		X	Y	
4		2964	1687	2955	1692	1689	X		Y	
5		3041	1644	3032	1649	1647	X		Y	
6		3126	1599	3117	1604	1602	X		Y	
7		3167	1579	3162	1581	1580		X	Y	
8		3122	1602	3108	1609	1605	X		Y	
9		3207	1559	3203	1561	1560		X	Y	
10		3077	1625	3072	1628	1626	X		Y	
11		3194	1565	3185	1570	1568		X	Y	
12		3126	1599	3117	1604	1602	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 6 6 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 18

Front Panel

Panel Serial No: T 3526 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER6

Time of Day: 1:40 HH:mm

/ Temperature: 99.4 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	21	19	20	18	19.8
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 68 F

Rel. Humidity: 52 %

Firing Sequence

Start: 1:50 HH:mm

End: 2:05 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3383	1478	3383	1478	1478		X	Y	
2		3234	1546	3225	1550	1548		X	Y	
3		3072	1628	3063	1632	1630		X	Y	
4		2942	1700	2837	1762	1731	X		Y	
5		3059	1635	3054	1637	1636	X		Y	
6		3095	1616	3090	1618	1617		X	Y	
7		3032	1649	3032	1649	1649	X		Y	
8		3099	1613	3090	1618	1616	X		Y	
9		3140	1592	3140	1592	1592		X	Y	
10		3108	1609	3099	1613	1611	X		Y	
11		3167	1579	3158	1583	1581	X		Y	
12		3225	1550	3216	1555	1553		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 6 6 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 18

Back Panel

Panel Serial No: T 3525 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER6

Time of Day: 2:25 HH:mm

/ Temperature: 98.5 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	20	19	19	19	19.4
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 67 F

Rel. Humidity: 55 %

Firing Sequence

Start: 2:28 HH:mm

End: 2:42 HH:mm

Duration: 14 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3504	1427	3504	1427	1427		X	Y	
2		3510	1425	3509	1425	1425		X	Y	
3		3365	1486	3351	1492	1489		X	Y	
4		3185	1570	3176	1574	1572	X		Y	
5		3306	1512	3306	1512	1512		X	Y	
6		3194	1565	3180	1572	1569	X		Y	
7		3221	1552	3212	1557	1554		X	Y	
8		3189	1568	3180	1572	1570	X		Y	
9		3261	1533	3252	1538	1535		X	Y	
10		3144	1590	3140	1592	1591	X		Y	
11		3261	1533	3248	1539	1536		X	Y	
12		3185	1570	3176	1574	1572	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 19 Front Panel

Panel Serial No: T 3520 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1ER4
 Time of Day: 3:00 HH:mm
 / Temperature: 99.3 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	20	18	19	21	19.8
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 65 F
 Rel. Humidity: 54 %

Firing Sequence

 Start: 3:09 HH:mm
 End: 3:23 HH:mm
 Duration: 14 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3410	1466	3410	1466	1466		X	Y	
2		3230	1548	3221	1552	1550		X	Y	
3		3090	1618	3081	1623	1620		X	Y	
4		3009	1662	3000	1667	1664	X		Y	
5		3099	1613	3086	1620	1617		X	Y	
6		3014	1659	3005	1664	1661	X		Y	
7		3068	1630	3063	1632	1631	X		Y	
8		3081	1623	3072	1628	1625	X		Y	
9		3270	1529	3252	1538	1533		X	Y	
10		3194	1565	3180	1572	1569		X	Y	
11		3081	1623	3072	1628	1625	X		Y	
12		3149	1588	3135	1595	1591	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 6 6 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/05/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 19

Back Panel

Panel Serial No: T 3520 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 3:35 HH:mm

/ Temperature: 97.6 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	18	18	19	18	18.6
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 68 F

Rel. Humidity: 56 %

Firing Sequence

Start: 3:37 HH:mm

End: 3:52 HH:mm

Duration: 15 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3536	1414	3536	1414	1414		X	Y	
2		3279	1525	3279	1525	1525		X	Y	
3		3099	1613	3090	1618	1616	X		Y	
4		3162	1581	3153	1586	1584	X		Y	
5		3279	1525	3270	1529	1527		X	Y	
6		3212	1557	3207	1559	1558		X	Y	
7		3140	1592	3131	1597	1595	X		Y	
8		3203	1561	3189	1568	1564	X		Y	
9		3221	1552	3212	1557	1554		X	Y	
10		3189	1568	3180	1572	1570		X	Y	
11		3117	1604	3108	1609	1606	X		Y	
12		3167	1579	3158	1583	1581		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 20 Front Panel

Panel Serial No: T 3523 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R1ER4
 Time of Day: 8:50 HH:mm
 / Temperature: 99.1 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	20	20	20	21	20.4
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 66 F
 Rel. Humidity: 52 %

Firing Sequence

 Start: 8:52 HH:mm
 End: 9:05 HH:mm
 Duration: 12 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3486	1434	3486	1434	1434		X	Y	
2		3207	1559	3198	1563	1561		X	Y	
3		3104	1611	3095	1616	1613	X		Y	
4		3180	1572	3171	1577	1575	X		Y	
5		3293	1518	3284	1523	1520		X	Y	
6		3248	1539	3248	1539	1539		X	Y	
7		3108	1609	3099	1613	1611		X	Y	
8		3032	1649	3023	1654	1652	X		Y	
9		3090	1618	3086	1620	1619	X		Y	
10		3158	1583	3149	1588	1586	X		Y	
11		3270	1529	3266	1531	1530		X	Y	
12		3252	1538	3243	1542	1540		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 5 7 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - New Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R1 Velocity 2: 5.00 ft.
 Lab Technician(s): J.CONTRERAS/ GOMEZ

Sample 20

Back Panel

Panel Serial No: T 3526 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1ER4

Time of Day: 9:15 HH:mm

/ Temperature: 97.5 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	20	19	18	19	18	18.8
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 66 F

Rel. Humidity: 55 %

Firing Sequence

Start: 9:23 HH:mm

End: 9:34 HH:mm

Duration: 11 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3486	1434	3486	1434	1434		X	Y	
2		3243	1542	3230	1548	1545		X	Y	
3		3099	1613	3086	1620	1617	X		Y	
4		3230	1548	3216	1555	1551	X		Y	
5		3356	1490	3347	1494	1492		X	Y	
6		3257	1535	3243	1542	1538		X	Y	
7		3212	1557	3203	1561	1559		X	Y	
8		3131	1597	3131	1597	1597	X		Y	
9		3189	1568	3180	1572	1570		X	Y	
10		3126	1599	3117	1604	1602	X		Y	
11		3176	1574	3171	1577	1576	X		Y	
12		3189	1568	3176	1574	1571	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 6 6 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1410 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: RQ Velocity 2: 5.00 ft. CHES

Sample 21

Front Panel

Panel Serial No: T 3266 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2B3
 Time of Day: 1:48 HH:mm
 Clay Temperature: 99.8 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	20	20	21	18	19.8
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 67 F	Start: HH:mm	Start: 1:52 HH:mm
Rel. Humidity:	49 49 %	End: HH:mm	End: 2:01 HH:mm
		Duration: min	Duration: 9 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3490	1433	3490	1433	1433	0°	Y	0		24	
2	3527	1418	3527	1418	1418	0°	Y	0		28	
3	3513	1423	3513	1423	1423	0°	Y	0		26	
4	3518	1421	3522	1420	1420	30°	Y	0			
5	3545	1410	3545	1410	1410	45°	Y	0			
6	3491	1432	3491	1432	1432	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: HH:mm
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1410 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: RQ Velocity 2: 5.00 ft. CHES

Sample 21

Back Panel

Panel Serial No: T 3267 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2B3
 Time of Day: 2:06 HH:mm
 Clay Temperature: 99.0 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	19	18	17	18.6
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 67 F	Start: HH:mm	Start: 2:10 HH:mm
Rel. Humidity:	48 48 %	End: HH:mm	End: 2:19 HH:mm
		Duration: min	Duration: 9 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3495	1431	3500	1429	1430	0°	Y	0		22	
2	3531	1416	3531	1416	1416	0°	Y	0		25	
3	3482	1436	3486	1434	1435	0°	Y	0		25	
4	3504	1427	3504	1427	1427	45°	Y	0			
5	3518	1421	3518	1421	1421	30°	Y	0			
6	3549	1409	3549	1409	1409	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: R2B3
 Time of Day: 2:22 HH:mm
 Clay Temperature: 98.1 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	18	17	17	18	16	17.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1410 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: R2 Velocity 2: 5.00 ft. CHES

Sample 22

Front Panel

Panel Serial No: T 3282 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R1B1
 Time of Day: 2:30 HH:mm
 Clay Temperature: 99.4 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	20	19	19	18	19.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	67 67 F	Start: HH:mm	Start: 2:35 HH:mm
Rel. Humidity:	48 48 %	End: HH:mm	End: 2:47 HH:mm
		Duration: min	Duration: 12 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3554	1407	3554	1407	1407	0°	Y	0		27	
2	3545	1410	3545	1410	1410	0°	Y	0		25	
3	3482	1436	3486	1434	1435	0°	Y	0		24	
4	3500	1429	3500	1429	1429	45°	Y	0			
5	3509	1425	3509	1425	1425	30°	Y	0			
6	3531	1416	3531	1416	1416	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: HH:mm
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ
 Test ID: MKU10-001840 Reference Velocity: 1410 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: R2 Velocity 2: 5.00 ft. CHES

Sample 22
Back Panel

Panel Serial No: T 3279 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2B1
 Time of Day: 2:53 HH:mm
 Clay Temperature: 98.3 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	19	18	18	18	18	18.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End Ambient Temp: 67 67 F Rel. Humidity: 49 49 %	Armor Submersion Start: HH:mm End: HH:mm Duration: min	Firing Sequence Start: 2:57 HH:mm End: 3:05 HH:mm Duration: 8 min
--	--	---	---

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3509	1425	3513	1423	1424	0°	Y	0		24	
2	3536	1414	3540	1412	1413	0°	Y	0		26	
3	3491	1432	3495	1431	1431	0°	Y	0		24	
4	3477	1438	3477	1438	1438	30°	Y	0			
5	3509	1425	3513	1423	1424	45°	Y	0			
6	3527	1418	3531	1416	1417	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: R2B1
 Time of Day: 3:08 HH:mm
 Clay Temperature: 97.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	17	17	17	17	17	17.0
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1340 ± 30 ft/s
 NIJ Armor Type: 3A WATER SUBMERSION: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: R2 Velocity 2: 5.00 ft. CHES

Sample 23

Front Panel

Panel Serial No: T 3255 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R2B1
 Time of Day: 10:40 HH:mm
 Clay Temperature: 99.8 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	20	20	19	19	19.6
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	68 68 F	Start: HH:mm	Start: 10:45 HH:mm
Rel. Humidity:	55 55 %	End: HH:mm	End: 11:08 HH:mm
		Duration: min	Duration: 18 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3549	1409	3563	1403	1406	0°	Y	0		33	
2	3507	1426	3507	1426	1426	0°	Y	0		35	
3	3554	1407	3564	1403	1405	0°	Y	0		34	
4	0	0	0	0	0	30°	Y	0	B		NO READING
5	3518	1421	3531	1416	1419	45°	Y	0			
6	3482	1436	3500	1429	1432	0°	Y	0			
7	3491	1432	3491	1432	1432	30°	Y	0			REPLACEMENT FOR SHOT#4
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1340 ± 30 ft/s
 NIJ Armor Type: 3A WATER SUBMERSION: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: R2 Velocity 2: 5.00 ft. CHES

Sample 23

Back Panel

Panel Serial No: T 3256 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R2B1
 Time of Day: 11:14 HH:mm
 Clay Temperature: 98.5 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	19	18	19	18	17	18.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	68 68 F	Start: HH:mm	Start: 11:18 HH:mm
Rel. Humidity:	55 55 %	End: HH:mm	End: 11:29 HH:mm
		Duration: min	Duration: 11 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3495	1431	3513	1423	1427	0°	Y	0		33	
2	3500	1429	3518	1421	1425	0°	Y	0		36	
3	3572	1400	3585	1395	1397	0°	Y	0	B	34	
4	3531	1416	3531	1416	1416	45°	Y	0			
5	3414	1465	3428	1459	1462	30°	Y	0			
6	3437	1455	3450	1449	1452	0°	Y	0			
7	3477	1438	3482	1436	1437	0°	Y	0		35	REPLACEMENT FOR SHOT#3
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID: R2B1
 Time of Day: 11:33 HH:mm
 Clay Temperature: 97.6 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	18	18	17	17	16	17.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1340 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: 2 Velocity 2: 5.00 ft. CHES

Sample 24
Front Panel

 Panel Serial No: T 3279 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R2B2
 Time of Day: 1:26 HH:mm
 Clay Temperature: 99.0 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	20	19	19	19.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	68 68 F	Start:	1:30 HH:mm
Rel. Humidity:	49 49 %	End:	1:40 HH:mm
		Duration:	10 min

FRONT PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3468	1442	3486	1434	1438	0°	Y	0		35	
2	3396	1472	3401	1470	1471	0°	Y	0		35	
3	3477	1438	3477	1438	1438	0°	Y	0		34	
4	3500	1429	3513	1423	1426	45°	Y	0			
5	3518	1421	3527	1418	1419	30°	Y	0			
6	3468	1442	3473	1440	1441	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

 Block ID:
 Time of Day: HH:mm
 Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						-

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Firing Data - Conditioned Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/03/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP
 Test ID: MKU10-001840 Reference Velocity: 1340 ± 30 ft/s
 NIJ Armor Type: 3A Water Submersion: No

TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft. Lab Technician(s): ADAMS
 Laboratory Range #: 2 Velocity 2: 5.00 ft. CHES

Sample 24
Back Panel

Panel Serial No: T 3278 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2B2
 Time of Day: 1:26 HH:mm
 Clay Temperature: 99.0 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	20	19	20	19	19	19.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

	Start End	Armor Submersion	Firing Sequence
Ambient Temp:	68 68 F	Start: HH:mm	Start: 1:30 HH:mm
Rel. Humidity:	49 49 %	End: HH:mm	End: 1:40 HH:mm
		Duration: min	Duration: 10 min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1	3468	1442	3486	1434	1438	0°	Y	0		35	
2	3396	1472	3401	1470	1471	0°	Y	0		35	
3	3477	1438	3477	1438	1438	0°	Y	0		34	
4	3500	1429	3513	1423	1426	30°	Y	0			
5	3518	1421	3527	1418	1419	45°	Y	0			
6	3468	1442	3473	1440	1441	0°	Y	0			
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID: R2B2
 Time of Day: 1:33 HH:mm
 Clay Temperature: 98.2 F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
	19	18	18	18	18	18.2
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

NOTES:

- | | | |
|---------------------------|---|--------------------|
| a - Excessive velocity | d - Too close to prior impact | g - Impact on seam |
| b - Insufficient velocity | e - Excessive total impacts (test terminated) | |
| c - Too close to edge | f - Excessive area impacts (test terminated) | |

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - Conditioned Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R2 Velocity 2: 5.00 ft.
 Lab Technician(s): ADAMS/CHES

Sample 25

Front Panel

Panel Serial No: T 3261 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2ER5

Time of Day: 1:14 HH:mm

/ Temperature: 101.0 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	20	20	21	20	20.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 70 F

Rel. Humidity: 49 %

Firing Sequence

Start: 1:18 HH:mm

End: 1:34 HH:mm

Duration: 16 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3540	1412	3540	1412	1412		X	Y	
2		3279	1525	3279	1525	1525		X	Y	
3		3135	1595	3135	1595	1595		X	Y	
4		2933	1705	2933	1705	1705		X	Y	
5		2811	1779	2816	1776	1777		X	Y	
6		2690	1859	2690	1859	1859	X		Y	
7		2816	1776	2816	1776	1776		X	Y	
8		2780	1799	2780	1799	1799	X		Y	
9		2865	1745	2865	1745	1745		X	Y	
10		2820	1773	2825	1770	1771		X	Y	
11		2748	1820	2748	1820	1820	X		Y	
12		2820	1773	2820	1773	1773		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 3 9 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - Conditioned Armor - Threat 1

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .357 SIG 125/FMJ

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R2 Velocity 2: 5.00 ft.
 Lab Technician(s): ADAMS/CHES

Sample 25

Back Panel

Panel Serial No: T 3254 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2ER5

Time of Day: 1:42 HH:mm

/ Temperature: 99.1 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	19	21	19	18	17	18.8
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 68 F

Rel. Humidity: 50 %

Firing Sequence

Start: 1:47 HH:mm

End: 2:00 HH:mm

Duration: 13 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3576	1398	3576	1398	1398		X	Y	
2		3342	1496	3347	1494	1495		X	Y	
3		3135	1595	3140	1592	1594		X	Y	
4		2973	1682	2973	1682	1682		X	Y	
5		2865	1745	2865	1745	1745		X	Y	
6		2717	1840	2717	1840	1840		X	Y	
7		2631	1900	2631	1900	1900	X		Y	
8		2744	1822	2748	1820	1821		X	Y	
9		2681	1865	2685	1862	1864		X	Y	
10		2649	1888	2649	1888	1888	X		Y	
11		2672	1871	2676	1868	1870	X		Y	
12		2753	1816	2753	1816	1816		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 3 9 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - Conditioned Armor - Threat 2

 Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

 Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

 Test ID: MKU10-001840

 NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R2 Velocity 2: 5.00 ft.
 Lab Technician(s): ADAMS/CHES

Sample 26 Front Panel

 Panel Serial No: T 3260 F Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

 Block ID: R2B4
 Time of Day: 9:25 HH:mm
 / Temperature: 100.5 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	21	22	20	20	20	20.6
Requirements: All drops: 19 ± 3 mm , Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

 Ambient Temp: 65 F
 Rel. Humidity: 46 %

Firing Sequence

 Start: 9:33 HH:mm
 End: 9:49 HH:mm
 Duration: 16 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3743	1336	3747	1334	1335		X	Y	
2		3486	1434	3486	1434	1434		X	Y	
3		3180	1572	3185	1570	1571		X	Y	
4		3113	1606	3113	1606	1606	X		Y	
5		3284	1523	3284	1523	1523		X	Y	
6		3162	1581	3167	1579	1580		X	Y	
7		3059	1635	3059	1635	1635	X		Y	
8		3162	1581	3162	1581	1581		X	Y	
9		3077	1625	3077	1625	1625	X		Y	
10		3176	1574	3180	1572	1573		X	Y	
11		3090	1618	3090	1618	1618		X	Y	
12		3023	1654	3023	1654	1654	X		Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 4 8 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Firing Data - Conditioned Armor - Threat 2

Report Number: 11697-22 Report Date: 10/12/11 Test Date: 10/06/11

Manufacturer: MKU Pvt. Ltd. Ammunition: .44 Mag 240/SJHP

Test ID: MKU10-001840

NIJ Armor Type: 3A Water Submersion: No

 TEST DIMENSIONS: Range Length: 17.20 ft. Velocity 1: 5.00 ft.
 Laboratory Range #: R2 Velocity 2: 5.00 ft.
 Lab Technician(s): ADAMS/CHES

Sample 26

Back Panel

Panel Serial No: T 3263 B Plate Serial No: N/A

PRE-TEST CLAY VALIDATION:

Block ID: R2B4

Time of Day: 10:04 HH:mm

/ Temperature: 98.7 F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
	19	18	19	18	18	18.4
Requirements: All drops: 19 ± 3 mm, Average: 19 ± 2 mm						
Pass:						Yes

TEST CONDITIONS:

Ambient Temp: 70 F

Rel. Humidity: 48 %

Firing Sequence

Start: 10:10 HH:mm

End: 10:29 HH:mm

Duration: 19 min

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1 - Front										
Shot No.	Charge Weight	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Result		Used (Y/N)	Remarks
							Perf (CP)	Stop (PP)		
1		3806	1314	3806	1314	1314		X	Y	
2		3464	1443	3468	1442	1443		X	Y	
3		3194	1565	3198	1563	1564		X	Y	
4		3108	1609	3108	1609	1609		X	Y	
5		2946	1697	2951	1694	1696		X	Y	
6		2856	1751	2856	1751	1751	X		Y	
7		2960	1689	2960	1689	1689	X		Y	
8		3068	1630	3072	1628	1629	X		Y	
9		3338	1498	3342	1496	1497		X	Y	
10		3180	1572	3185	1570	1571		X	Y	
11		3117	1604	3117	1604	1604		X	Y	
12		3041	1644	3041	1644	1644		X	Y	
13			0		0					
14			0		0					
15			0		0					

Count: 12 3 9 12

Remarks:

a - Too close to edge

b - Too close to prior impact

c - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Summary Data

Report Number: 11697-22 Test ID: MKU10-001840 Report Date: 10/12/11
 Manufacturer: MKU Pvt. Ltd. Model Designation: MKS-1002 NIJ Armor Type: 3A

Threat 1 - New Armor
 Ammunition: .357 SIG 125/FMJ Reference Velocity: 1470 $\pm$ 30 ft/s Water Submersion: Yes
 Shot-to-Edge: 2 inches

Shot Number	Sample 1 Size: C5				Sample 2 Size: C5			
	Front Panel		Back Panel		Front Panel		Back Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note
1	1474.1	0	24.0		1480.2	0	23.0	
2	1469.3	0	24.0		1466.3	0	23.0	
3	1477.1	0	24.0		1468.4	0	23.0	
4	1475.1	0			1467.4	0		
5	1465.4	0			1465.4	0		
6	1483.0	0			1477.1	0		
7								
8								
Summary: Perforations: 0 (Pass) BFS Statistics: Count: 12 Average: 23.6 mm Maximum BFS: 24.0 mm k1: 1.568 St. Dev.: 0.51 mm (Pass - No BFS greater than 44 mm)								

Shot Number	Sample 3 Size: C3				Sample 4 Size: C3			
	Front Panel		Back Panel		Front Panel		Back Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note
1	1481.0	0	26.0		1475.1	0	25.0	
2	1487.0	0	26.0		1461.6	0	25.0	
3	1474.1	0	25.0		1467.4	0	25.0	
4	1477.1	0			1468.2	0		
5	1482.1	0			1481.0	0		
6	1475.1	0			1479.1	0		
7								
8								
Summary: Perforations: 0 (Pass) BFS Statistics: Count: 12 Average: 24.5 mm Maximum BFS: 27.0 mm k1: 1.568 St. Dev.: 1.51 mm (Pass - No BFS greater than 44 mm)								

Threat 2 - New Armor
 Ammunition: .44 Mag 240/SJHP Reference Velocity: 1430 $\pm$ 30 ft/s Water Submersion: Yes
 Shot-to-Edge: 3 inches

Shot Number	Sample 5 Size: C5				Sample 6 Size: C5			
	Front Panel		Back Panel		Front Panel		Back Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note
1	1444.5	0	33.0		1443.4	0	32.0	
2	1425.1	0	36.0		1452.0	0	34.0	
3	1418.6	0	36.0		1416.8	0	35.0	
4	1429.6	0			1404.3	0		
5	1420.5	0			1467.4	0		
6	1443.4	0			1469.3	0		
7								
8								
Summary: Perforations: 0 (Pass) BFS Statistics: Count: 12 Average: 34.8 mm Maximum BFS: 39.0 mm k1: 1.568 St. Dev.: 1.86 mm (Pass - No BFS greater than 44 mm)								

Shot Number	Sample 7 Size: C3				Sample 8 Size: C3			
	Front Panel		Back Panel		Front Panel		Back Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note
1	1418.6	0	35.0		1431.4	0	32.0	
2	1417.8	0	36.0		1446.3	0	35.0	
3	1438.8	0	36.0		1409.6	0	36.0	
4	1428.6	0			1382.6	0		b
5	1424.1	0			1426.7	0		
6	1428.8	0			1427.8	0		
7					1436.99	0		
8								
Summary: Perforations: 0 (Pass) BFS Statistics: Count: 12 Average: 35.3 mm Maximum BFS: 37.0 mm k1: 1.568 St. Dev.: 1.29 mm (Pass - No BFS greater than 44 mm)								

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Perforation and BFS Summary Data

Report Number: 11697-22 Test ID: MKU10-001840 Report Date: 10/12/11
 Manufacturer: MKU Pvt. Ltd. Model Designation: MKS-1002 NIJ Armor Type: 3A

Threat 1 - Conditioned Armor
 Ammunition: .357 SIG 125/FMJ Test Velocity: 1410 ± 30 ft/s Water Submersion: No
 Shot-to-Edge: 2 inches

Shot Number	Sample 21 Size: C5				Sample 22 Size: C3			
	Front Panel		Back Panel		Front Panel		Back Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note
1	1432.7	0	24.0		1429.6	0	22.0	
2	1417.6	0	28.0		1416.0	0	25.0	
3	1423.3	0	26.0		1435.1	0	25.0	
4	1420.5	0			1426.9	0		
5	1410.4	0			1421.3	0		
6	1432.3	0			1408.8	0		
7								
8								
Summary: Perforations: 0 (Pass) Maximum BFS: 28.0 mm (no requirement)					Perforations: 0 (Pass) Maximum BFS: 27.0 mm (no requirement)			

Threat 2 - Conditioned Armor
 Ammunition: .44 Mag 240/SJHP Test Velocity: 1340 ± 30 ft/s Water Submersion: No
 Shot-to-Edge: 3 inches

Shot Number	Sample 23 Size: C5				Sample 24 Size: C3			
	Front Panel		Back Panel		Front Panel		Back Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	BFS (mm)	Note
1	1406.1	0	33.0		1427.0	0	33.0	
2	1425.7	0	35.0		1424.9	0	36.0	
3	1404.9	0	34.0		1397.2	0	34.0	B
4	0.0	0		B	1416.0	0		
5	1418.6	0			1461.6	0		
6	1432.3	0			1452.0	0		
7	1432.25	0			1436.99	0	35.0	
8								
Summary: Perforations: 0 (Pass) Maximum BFS: 36.0 mm (no requirement)					Perforations: 0 (Pass) Maximum BFS: 35.0 mm (no requirement)			

Overall P-BFS Summary

Perforations: This requirement is for all P-BFS tested samples - New and Conditioned
 0 This armor model meets the perforation performance requirements of NIJ Standard-0101.06 Section 7.8.8.

Backface Signature: This requirement is for New armors only
Maximum BFS: 39.0 mm
 This armor model meets the BFS performance requirements of NIJ Standard-0101.06 Section 7.8.8 Item a.

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Summary Data

Report Number: 11697-22 Test ID: MKU10-001840 Report Date: 10/12/11
 Manufacturer: MKU Pvt. Ltd. Model Designation: MKS-1002 NIJ Armor Type: 3A
 Threat 1 - New Armor
 Ammunition: .357 SIG 125/FMJ Reference Velocity: 1470 ± 30 ft/s Water Submersion: No

Shot Number	Sample 11			Sample 11			Sample 12			Sample 12			Sample 13		
	Front	Panel		Back	Panel		Front	Panel		Back	Panel		Front	Panel	
	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note
	(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)	
1	1464.6	0		1465.4	0		1438.0	0		1484.1	0		1446.3	0	
2	1538.5	0		1637.2	0		1562.3	0		1598.2	0		1535.2	0	
3	1707.7	0		1694.3	0		1735.5	1		1712.2	0		1697.2	0	
4	1787.0	1		1809.0	1		1668.9	0		1758.7	1		1796.0	1	
5	1731.3	0		1761.8	0		1688.0	0		1679.0	0		1734.3	0	
6	1732.8	0		1798.6	0		1723.5	0		1723.5	0		1764.3	0	
7	1808.97	1		1806.03	0		1769.91	0		1788.59	0		1810.28	1	
8	1775.57	1		1843.66	1		1888.93	1		1849.8	0		1758.71	0	
9	1736.71	0		1862.2	0		1840.26	1		1892.15	1		1837.56	0	
10	1773.05	0		1858.74	1		1813.57	1		1835.87	1		1877.58	1	
11	1838.91	1		1876.17	1		1791.47	1		1860.47	1		1838.91	1	
12	1782.85	1		1874.77	1		1736.71	1		1746.42	0		1792.76	1	
13															
14															
15															

Shot Number	Sample 13			Sample 14			Sample 14			Sample 15			Sample 15		
	Back	Panel		Front	Panel		Back	Panel		Front	Panel		Back	Panel	
	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note
	(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)	
1	1493.0	0		1471.2	0		1469.3	0		1487.0	0		1438.8	0	
2	1631.1	0		1620.2	0		1601.5	0		1593.6	0		1613.2	0	
3	1696.1	0		1686.9	0		1685.5	0		1697.2	0		1671.7	0	
4	1832.8	1		1780.0	0		1767.4	1		1763.0	0		1804.4	1	
5	1760.3	0		1846.4	1		1720.6	0		1849.8	1		1728.9	0	
6	1764.3	0		1798.6	0		1773.0	1		1803.1	0		1769.9	0	
7	1846.38	1		1807.66	1		1694.34	0		1848.09	1		1795.98	1	
8	1767.41	1		1808.97	1		1760.25	0		1792.76	0		1764.29	1	
9	1745.2	0		1708.82	0		1777.15	0		1816.2	1		1764.29	0	
10	1723.54	0		1775.57	0		1820.83	1		1764.29	0		1765.85	1	
11	1841.96	1		1813.57	0		1778.73	0		1795.98	0		1767.41	0	
12	1810.28	1		1846.72	1		1852.54	1		1828.49	1		1778.73	1	
13															
14															
15															

Summary: Total Usable Shots: 120 Acceptable Perforations below 1500 ft/s: 0 Acceptable
 Perforations (Complete Penetrations): 47 Acceptable
 Stops (Partial Penetrations): 73 Good

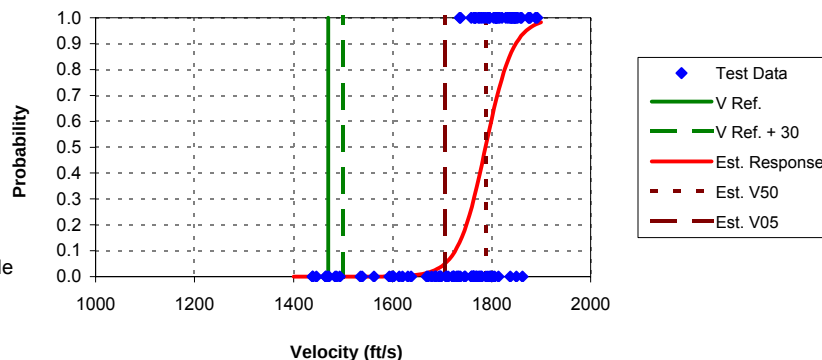
Test Data and Regression Model

Regression Analysis
 Regression Model: **Logistic**
 Model Parameters: β_0 : -64.1
 β_1 : 0.036

Estimated V50: **1788 ft/s**

Estimated V05: 1706 ft/s

Probability of perforation at NIJ reference
 velocity (1470 ft/sec): **0.0% Acceptable**



NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Summary Data

Report Number: 11697-22 Test ID: MKU10-001840 Report Date: 10/12/11
 Manufacturer: MKU Pvt. Ltd. Model Designation: MKS-1002 NIJ Armor Type: 3A
 Ammunition: .44 Mag 240/SJHP Threat 2 - New Armor Reference Velocity: 1430 ± 30 ft/s Water Submersion: No

Shot Number	Sample 16			Sample 16			Sample 17			Sample 17			Sample 18		
	Front	Panel		Back	Panel		Front	Panel		Back	Panel		Front	Panel	
	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note
	(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)	
1	1446.3	0		1467.4	0		1372.1	0		1443.4	0		1478.0	0	
2	1581.0	0		1583.5	1		1512.4	0		1524.9	0		1548.2	0	
3	1666.4	1		1450.4	0		1607.5	1		1609.8	0		1630.0	0	
4	1603.9	1		1595.7	1		1590.1	1		1689.5	1		1731.0	1	
5	1551.4	0		1462.4	0		1473.2	0		1646.6	1		1635.9	1	
6	1574.6	0		1575.5	1		1560.1	0		1601.8	1		1616.8	0	
7	1623.9	1		1518.61	0		1538.47	0		1580.03	0		1649.08	1	
8	1576.54	1		1576.54	0		1560.06	0		1605.14	1		1615.77	1	
9	1544.88	0		1541.55	1		1601.8	0		1560.06	0		1592.36	0	
10	1574.56	1		1539.65	0		1640.69	1		1626.28	1		1611.09	1	
11	1556.66	0		1575.55	1		1590.08	1		1567.65	0		1581.03	1	
12	1565.44	0		1532.1	0		1594.65	1		1601.8	1		1552.56	0	
13															
14															
15															

Shot Number	Sample 18			Sample 19			Sample 19			Sample 20			Sample 20		
	Back	Panel		Front	Panel		Back	Panel		Front	Panel		Back	Panel	
	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note	Avg. Vel.	Perf	Note
	(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)		(ft/sec)	(Y=1/N=0)	
1	1426.9	0		1466.3	0		1414.0	0		1434.3	0		1434.3	0	
2	1424.7	0		1550.2	0		1524.9	0		1561.3	0		1544.9	0	
3	1489.0	0		1620.5	0		1615.8	1		1613.2	1		1616.8	1	
4	1572.1	1		1664.2	1		1583.5	1		1574.6	1		1551.4	1	
5	1512.4	0		1616.8	0		1527.0	0		1520.5	0		1491.9	0	
6	1568.9	1		1661.4	1		1557.9	0		1539.4	0		1538.5	0	
7	1554.49	0		1631.06	1		1594.65	1		1611.09	0		1558.85	0	
8	1570.11	1		1625.23	1		1564.46	1		1651.53	1		1596.93	1	
9	1535.39	0		1533.28	0		1554.49	0		1619.17	1		1570.11	0	
10	1591.34	1		1568.88	0		1570.11	0		1585.54	1		1601.8	1	
11	1536.34	0		1625.23	1		1606.43	1		1529.99	0		1575.55	1	
12	1572.08	1		1591.35	1		1581.03	0		1539.65	0		1571.1	1	
13															
14															
15															

Summary: Total Usable Shots: 120 Good Perforations below 1460 ft/s: 0 Acceptable
 Perforations (Complete Penetrations): 54 Acceptable
 Stops (Partial Penetrations): 66 Acceptable

Test Data and Regression Model

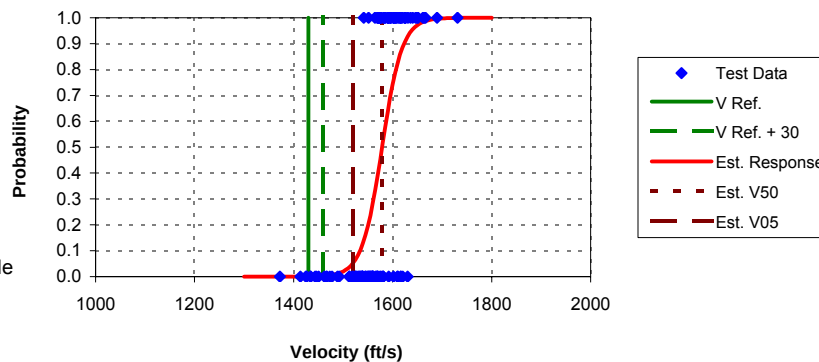
Regression Analysis

Regression Model: **Logistic**
 Model Parameters: β_0 : -78.0
 β_1 : 0.049

Estimated V50: **1579 ft/s**

Estimated V05: 1519 ft/s

Probability of perforation at NIJ reference
 velocity (1470 ft/sec): **0.1% Acceptable**



NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

Ballistic Limit Summary Data

Report Number: 11697-22 Test ID: MKU10-001840 Report Date: 10/12/11
 Manufacturer: MKU Pvt. Ltd. Model Designation: MKS-1002 NIJ Armor Type: 3A

Threat 1 - Conditioned Armor

Ammunition: .357 SIG 125/FMJ
 Test Velocity: 1410 ± 30 ft/s Wet: No

Shot Number	Sample 25			Sample 25		
	Front	Panel		Back	Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	Note
1	1412.4	0		1398.2	0	
2	1524.9	0		1495.0	0	
3	1594.9	0		1593.6	0	
4	1704.7	0		1681.8	0	
5	1777.1	0		1745.2	0	
6	1858.7	1		1840.3	0	
7	1775.57	0		1900.42	1	
8	1798.56	1		1820.83	0	
9	1745.2	0		1863.59	0	
10	1771.48	0		1887.5	1	
11	1819.51	1		1869.86	1	
12	1773.05	0		1816.2	0	
13						
14						
15						

Summary:

Total Usable Shots: 24 Acceptable
 Perforations (CP): 6
 Stops (PP): 18

Perforations below 1440 ft/s: 0 Acceptable

Regression Analysis

Regression Model: Logistic
 Model Parameters: β_0 : -70.4
 β_1 : 0.038

Estimated V50: 1838 ft/s

Threat 2 - Conditioned Armor

Ammunition: .44 Mag 240/SJHP
 Test Velocity: 1340 ± 30 ft/s Wet: No

Shot Num	Sample 26			Sample 26		
	Front	Panel		Back	Panel	
	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	Note	Avg. Vel. (ft/sec)	Perf (Y=1/N=0)	Note
1	1335.1	0		1313.7	0	
2	1434.3	0		1442.6	0	
3	1571.1	0		1564.5	0	
4	1606.2	1		1608.8	0	
5	1522.5	0		1695.8	0	
6	1580.0	0		1750.7	1	
7	1634.52	1		1689.19	1	
8	1581.28	0		1628.67	1	
9	1624.96	1		1497.01	0	
10	1573.32	0		1571.09	0	
11	1618.12	0		1604.11	0	
12	1653.99	1		1644.2	0	
13						
14						
15						

Summary:

Total Usable Shots: 24 Acceptable
 Perforations (CP): 7
 Stops (PP): 17

Perforations below 1370 ft/s: 0 Acceptable

Regression Analysis

Regression Model: Logistic
 Model Parameters: β_0 : -51.5
 β_1 : 0.031

Estimated V50: 1638 ft/s

Overall Ballistic Limit Summary

Perforations below Vref + 30 ft/sec: 0 This requirement is for all Ballistic Limit tested samples - New and Conditioned
 This armor model meets the low perforation velocity performance requirements of NIJ Standard-0101.06 Section 7.9.5.

Probability of perforation at the P-BFS reference velocity This requirement is for New armors only

Threat 1: 0.0%

Threat 2: 0.1%

This armor model meets the estimated V05 performance requirements of NIJ Standard-0101.06 Section 7.9.5.

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

#VALUE!

Report Number: 11697-22

Report Date: 10/12/11

Test Date:

Manufacturer: MKU Pvt. Ltd.

Ammunition: #VALUE! #VALUE!

Test ID: MKU10-001840

Reference Velocity: #VALUE! ± 30 ft/s

NIJ Armor Type: 3A

Water Submersion: #VALUE!

 TEST DIMENSIONS: Range Length: 17.20 ft.
Laboratory Range #:

 Velocity 1: 5.00 ft.
Velocity 2: 5.00 ft.

Lab Technician(s):

#VALUE!

Panel Serial No: #VALUE!

Front Panel

Plate Serial No: #VALUE!

PRE-TEST CLAY VALIDATION:

Block ID:

Time of Day: HH:mm

Clay Temperature: F

Depth of Indent:	Drop Number					
	1	2	3	4	5	Avg.
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						-

TEST CONDITIONS:

Start End

 Ambient Temp: F
Rel. Humidity: %

Armor Submersion

Start: HH:mm

End: HH:mm

Duration: min

Firing Sequence

Start: HH:mm

End: HH:mm

Duration: min

FRONT PANEL											
Shot No.	Time 1 (μ s)	Vel. 1 (ft/s)	Time 2 (μ s)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1		0		0		0°					
2		0		0		0°					
3		0		0		0°					
4		0		0		#####					
5		0		0		#####					
6		0		0		0°					
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID:

Time of Day: HH:mm

Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						-

NOTES:

- a - Excessive velocity
- b - Insufficient velocity
- c - Too close to edge

- d - Too close to prior impact
- e - Excessive total impacts (test terminated)
- f - Excessive area impacts (test terminated)

- g - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

#VALUE!

Report Number: 11697-22

Report Date: 10/12/11

Test Date:

Manufacturer: MKU Pvt. Ltd.

Ammunition: #VALUE! #VALUE!

Test ID: MKU10-001840

Reference Velocity: #VALUE! ± 30 ft/s

NIJ Armor Type: 3A

Water Submersion: #VALUE!

 TEST DIMENSIONS: Range Length: 17.20 ft.
Laboratory Range #:

 Velocity 1: 5.00 ft.
Velocity 2: 5.00 ft.

Lab Technician(s):

#VALUE!

Panel Serial No: #VALUE!

Back Panel

Plate Serial No: #VALUE!

PRE-TEST CLAY VALIDATION:

Block ID:

Time of Day: HH:mm

Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						-

TEST CONDITIONS:

 Start End
Ambient Temp: F
Rel. Humidity: %

Armor Submersion

 Start: HH:mm
End: HH:mm
Duration: min

Firing Sequence

 Start: HH:mm
End: HH:mm
Duration: min

BACK PANEL											
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Angle	Fair (Y/N)	Perforate (Y=1/N=0)	Note	BFS (mm)	Comments
1		0		0		0°					
2		0		0		0°					
3		0		0		0°					
4		0		0		#####					
5		0		0		#####					
6		0		0		0°					
7		0		0							
8		0		0							

POST-TEST CLAY VALIDATION:

Block ID:

Time of Day: HH:mm

Clay Temperature: F

Depth of Indent:	Drop Number					Avg.
	1	2	3	4	5	
Requirements: All drops: $19 \pm 3 \text{ mm}$, Average: $19 \pm 2 \text{ mm}$						
Pass:						-

NOTES:

- a - Excessive velocity
- b - Insufficient velocity
- c - Too close to edge

- d - Too close to prior impact
- e - Excessive total impacts (test terminated)
- f - Excessive area impacts (test terminated)

- g - Impact on seam

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U.S. Department of Justice

Office of Justice Programs

National Institute of Justice

Washington, D.C. 20530

March 27, 2013

Neeraj Gupta
Jt. Managing Director
MKU Pvt. Ltd
13, Gandhi Gram, G.T. Road
Kanpur – 208 007, U.P. India

Notice of Compliance with NIJ Standard–0101.06

Body Armor Model Designation: P-10016 ICW MKS-1002

NIJ Compliance Status Expires: March 27, 2018

Dear Mr. Gupta:

We have completed our evaluation of the body armor model identified above that was submitted to the National Institute of Justice's (NIJ's) Voluntary Body Armor Compliance Testing Program. We are pleased to inform you that the above body armor model satisfies the requirements of NIJ Standard–0101.06 and the Compliance Testing Program.

We also received your completed declaration concerning the model noted above and your agreement to participate in the conformity assessment follow-up process.

The body armor model details are listed on the NIJ Compliant Products List available at www.justnet.org/CTP.

You are now authorized to place the NIJ Statement of Compliance on the labels of this body armor model and all subsequent production units. The Statement of Compliance shall read:

“This model of armor has been determined to comply with NIJ Standard–0101.06 by the NIJ Compliance Testing Program and is listed on the NIJ Compliant Products List.”

All compliance requirements, as identified by the *NIJ Body Armor Compliance Testing Program Administrative Manual* and the *Ballistic Body Armor Applicant Package*, must be maintained as long as the NIJ Statement of Compliance is displayed on this armor model's labels. If, at any time, the compliance status of this armor model is changed, the NIJ Statement of Compliance shall cease to be used as of the date of the status change.

Sincerely,

Michael K. O'Shea
Law Enforcement Program Manager
US Department of Justice
OJP/NIJ/OST/Operational Technologies Division