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11 March 2009
(HPWLI 11145-01A)

Radiation Shield Technologies, Inc.
P.O. Box 14-4254
Coral Gables, FL 33114

Attention: Mr. Daniel Edward

In accordance with your instructions, H.P. White Laboratory, Incorporated conducted Ballistic limit, Protection (**V₅₀ BL[P]**) Testing and Ballistic Penetration/Back Face Signature (**P/BFS**) Testing of seven proprietary panels received on 4 March 2009 via Federal Express.

Testing was conducted in accordance with your instructions and the abbreviated provisions of **FQ/PD 07-05B, PURCHASE DESCRIPTION, BODY ARMOR, MULTIPLE THREAT, (IOTV) dated 12 October 2007** using calibers 2, 4, 16, and 64 grain, right circular cylinders (RCC); caliber .22, 17 grain, fragment simulating projectiles (FSP); and caliber 9mm, 124 grain, FMJ ammunition. Refer to the enclosed data records for range set-up, conditions, and comprehensive shot information. Tables I and II provide a summary of the enclosed data records.

This report is based on data obtained from having tested only the samples submitted and should not be interpreted as an endorsement by H.P. White Laboratory, Inc. of the continuing quality, or performance, of any other items of the same, or similar design.

All instrumentation and measurement devices, including velocity chronographs, were calibrated in accordance with ISO 10012 and or ISO 17025 requirements.

The samples will be returned via Federal Express or equivalent. Should you have any questions regarding this matter, please do not hesitate to contact us.

Sincerely,

H.P. WHITE LABORATORY, INC.

Ray McBride

RM/mw
Enclosures

Table I. Ballistic Limit, Protection (V ₅₀ BL[P]) Summary of Results										
Test Sample			Ballistic Threat			Ballistic Limit (fps)				
Condition	Sample Number	Weight (lbs)	Test Projectile	Obliquity (degrees)	Shots (a) Total/V50	Required Velocity (b)	Test Result V50	Margin +/-	High Partial	Low Complete
Ambient	HPW-2 (2gr)	10.44	2gr RCC	0	4/na	2710	NA	NA	5426	NA
	HPW-3 (4gr)	10.44	4gr RCC	0	5/2	2400	5234	+2834	5199	5270
	HPW-4 (16gr)	15.55	16gr RCC	0	6/na	2050	NA	NA	4866	NA
	HPW-1 (17gr)	16.50	17gr FSP	0	12/4	1850	3952 (c)	+2102	4038	3868
	HPW-5 (64gr)	15.44	64gr RCC	0	10/6	1660	2721	+1061	2722	2720
	HPW-6 (9mm)	10.31	9mm	0	9/6	1525	1979	+454	1990	1947

(a) See data records for shot locations
 (b) Minimum V50 per FQ/PD 07-05B
 (c) Range of mixed results exceeds the maximum allowable per the PD. Inconclusive V50.

Table II. Ballistic Penetration/Back Face Signature (P/BFS) Summary of Results									
Test Sample			Ballistic Threat			Results			
Condition	Sample Number	Weight (lbs)	Test Projectile	Obliquity (degrees)	Shots (a)	Velocity (fps) (b)		Penetrations	Deformation (mm)
						Max	Min		
Ambient	HPW-1	16.17	9mm Luger	0	3	1431	1410	0	22
				30	2	1422	1413	0	22

(a) Shot pattern used for testing in accordance with FQ/PD 07-05B
 (b) Required velocity: 1400-1450 fps



H.P. White Laboratory, Inc.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/5/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Required BL(P) : 2710 ft/s
 Description : PROPRIETARY

Sample No. : HPW-2 (2GR)
 Heat No. : NA
 Weight : 10.44 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03-04-09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : PER FQ/PD 07-05B (V50)
 Witness Panel : 0.020", 2024-T3 ALUMINUM
 Obliquity : 0 deg.
 Backing Material : NA
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 7.0 ft.
 Primary Vel. Location : 6.0 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 9.0 ft.
 Target to Wit. : 6.0 in.

Range No. : 1
 Temp. : 72 F
 BP : 29.89 in. Hg
 RH : 25%
 Barrel No./Gun : 2GR/4GR R/1
 Gunner : L.CHES
 Recorder : ADAMS

AMMUNITION

Projectile : 2 grain Steel RCC, 2 gr.
 Powder : BULLSEYE

Lot No. : 2HPW-002

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B (V50)
- (2) :
- (3) :

Shot No.	Powder/ Seating	Time (usec)	Velocity (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	6.2	693	2886	114	2772	P		(a), (b)
2	6.6	644	3106	123	2983	P		
3	18.5	362	5525	218	5306	P		
4	18.5	354	5650	223	5426	P		

FOR OFFICIAL USE ONLY

<u>REMARKS :</u>	<u>FOOTNOTES :</u> (a) TEST TERMINATED DUE TO VELOCITY LIMITATIONS OF TEST BARREL. (b) ALL PROJECTILES STOPPED IN POINT BLANK SHOOT PACK.	<u>V50 SUMMARY :</u> No. Points : V50 : High Partial : 5426 Low Complete : Range of Results : Range of Mixed :
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H.P. White Laboratory, Inc.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/5/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Required BL(P) : 2400 ft/s
 Description : PROPRIETARY

Sample No. : HPW-3 (4GR)
 Heat No. : NA
 Weight : 10.44 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03-04-09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : PER FQ/PD 07-05B (V50)
 Witness Panel : 0.020", 2024-T3 ALUMINUM
 Obliquity : 0 deg.
 Backing Material : NA
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 7.0 ft.
 Primary Vel. Location : 6.0 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 9.0 ft.
 Target to Wit. : 6.0 in.

Range No. : 1
 Temp. : 72 F
 BP : 29.89 in. Hg
 RH : 25%
 Barrel No./Gun : 2GR/4GR R/1
 Gunner : L.CHES
 Recorder : ADAMS

AMMUNITION

Projectile : 4 grain Steel RCC, 4 gr.
 Powder : BULLSEYE

Lot No. : 4HPW-002

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B (V50)
- (2) :
- (3) :

Shot No.	Powder/Seating	Time (usec)	Velocity (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	18.5	373	5362	204	5157	P		
2	18.5	370	5405	206	5199	P	Y	
3	18.5	365	5479	209	5270	C	Y	
4	18.4	421	4751	181	4569	P		
5	18.5	372	5376	205	5171	P		(a)

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<u>REMARKS :</u>	<u>FOOTNOTES :</u> (a) TEST TERMINATED DUE TO VELOCITY LIMITATIONS OF TEST BARREL.	<u>V50 SUMMARY :</u> No. Points : 1 & 1 V50 : 5234 High Partial : 5199 Low Complete : 5270 Range of Results : 71 Range of Mixed : 0
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H.P. White Laboratory, Inc.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/5/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Required BL(P) : 2050 ft/s
 Description : PROPRIETARY

Sample No. : HPW-4 (16GR)
 Heat No. : NA
 Weight : 15.55 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03-04-09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : PER FQ/PD 07-05B (V50)
 Witness Panel : 0.020", 2024-T3 ALUMINUM
 Obliquity : 0 deg.
 Backing Material : NA
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 10.0 ft.
 Primary Vel. Location : 7.5 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 15.0 ft.
 Target to Wit. : 6.0 in.

Range No. : 1
 Temp. : 72 F
 BP : 29.89 in. Hg
 RH : 25%
 Barrel No./Gun : 16GR R/1
 Gunner : L.CHESS
 Recorder : ADAMS

AMMUNITION

Projectile : 16 grain Steel RCC, 16 gr.
 Powder : BULLSEYE

Lot No. : 16HPW-002

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B (V50)
- (2) :
- (3) :

Shot No.	Powder/Seating	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	24.7	1711	2922	1723	2902	2912	163	2749	P		(a), (b)
2	28.2	1458	3429	1458	3429	3429	192	3237	P		
3	32.0	1251	3997	1251	3997	3997	224	3773	P		
4	40.0	1148	4355	1148	4355	4355	244	4112	P		
5	50.0	970	5155	970	5155	5155	289	4866	P		
6	50.0	988	5061	988	5061	5061	283	4777	P		

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REMARKS :	FOOTNOTES : (a) TEST TERMINATED DUE TO VELOCITY LIMITATION OF TEST BARREL. (b) ALL PROJECTILES STOPPED IN POINT BLANK SHOOT PACK.	V50 SUMMARY : No. Points : V50 : High Partial : 4866 Low Complete : Range of Results : Range of Mixed :
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H.P. White Laboratory, Inc.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/4/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Required BL(P) : 1850 ft/s
 Description : PROPRIETARY

Sample No. : HPW-1 (17GR)
 Heat No. : NA
 Weight : 16.50 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03-04-09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : PER FQ/PD 07-05B (V50)
 Witness Panel : 0.020", 2024-T3 ALUMINUM
 Obliquity : 0 deg.
 Backing Material : NA
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 10.0 ft.
 Primary Vel. Location : 7.5 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 15.0 ft.
 Target to Wit. : 6.0 in.

Range No. : 5
 Temp. : 73 F
 BP : 30.06 in. Hg
 RH : 23%
 Barrel No./Gun : .220 SWIFT-1
 Gunner : GORRERA/ PRATT
 Recorder : CONTRERAS, M

AMMUNITION

Projectile : .22 Fragment Simulator, 17 gr.
 Powder : BULLSEYE

Lot No. : 17HPW-005

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B (V50)
- (2) :
- (3) :

Shot No.	Powder/ Seating	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	5.0	2292	2182	2303	2171	2176	100	2077	P		
2	7.0	1836	2723	1842	2714	2719	123	2595	P		
3	10.0	1488	3360	NR	NR	3360	151	3209	P		
4	20.0	NR	NR	NR	NR	NR	NR	NR	C		(a)
5	18.0	1239	4036	1245	4016	4026	178	3848	P		
6	19.0	1233	4055	1238	4039	4047	179	3868	C	Y	
7	18.5	1208	4139	1215	4115	4127	182	3945	C	Y	
8	18.0	1280	3906	1286	3888	3897	173	3724	P		
9	18.5	1245	4016	1252	3994	4005	177	3827	P		
10	19.0	1204	4153	1212	4125	4139	183	3956	P	Y	
11	20.0	1182	4230	1185	4219	4225	186	4038	P	Y	
12	20.5	1107	4517	1116	4480	4498	197	4301	C		(b)

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REMARKS :	FOOTNOTES : (a) SWITCHED TO BLUE DOT POWDER. (b) RANGE OF MIXED RESULTS EXCEEDS THE 150 fps MAXIMUM. INCONCLUSIVE V50.	V50 SUMMARY : No. Points : 2 & 2 V50 : 3952 High Partial : 4038 Low Complete : 3868 Range of Results : 170 Range of Mixed : 170
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H.P. White Laboratory, Inc.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/5/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Required BL(P) : 1660 ft/s
 Description : PROPRIETARY

Sample No. : HPW-5 (64GR)
 Heat No. : NA
 Weight : 15.44 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03-04-09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : PER FQ/PD 07-05B (V50)
 Witness Panel : 0.020", 2024-T3 ALUMINUM
 Obliquity : 0 deg.
 Backing Material : NA
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 10.0 ft.
 Primary Vel. Location : 7.5 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 15.0 ft.
 Target to Wit. : 6.0 in.

Range No. : 1
 Temp. : 72 F
 BP : 29.89 in. Hg
 RH : 25%
 Barrel No./Gun : 16GR R/1
 Gunner : L.CHESS
 Recorder : ADAMS

AMMUNITION

Projectile : 64 grain Steel RCC, 64 gr.
 Powder : BULLSEYE

Lot No. : 64HPW-002

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B (V50)
- (2) :
- (3) :

Shot No.	Powder/ Seating	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	97.0	2263	2209	2277	2196	2203	89	2114	P		
2	115.0	1908	2621	1908	2621	2621	105	2515	P		
3	127.0	1702	2938	1702	2938	2938	118	2820	C	Y	
4	125.0	1751	2856	1751	2856	2856	115	2741	C	Y	
5	120.0	1899	2633	1899	2633	2633	106	2527	P		
6	123.0	1839	2719	1839	2719	2719	109	2609	P		
7	125.0	1764	2834	1764	2834	2834	114	2720	C	Y	
8	123.5	1810	2762	1810	2762	2762	111	2651	P	Y	
9	125.0	1796	2784	1796	2784	2784	112	2672	P	Y	
10	126.0	1763	2836	1763	2836	2836	114	2722	P	Y	

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<u>REMARKS :</u>	<u>FOOTNOTES :</u>	<u>V50 SUMMARY :</u> No. Points : 3 & 3 V50 : 2721 High Partial : 2722 Low Complete : 2720 Range of Results : 169 Range of Mixed : 2
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H.P. White Laboratory, Inc.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/5/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Required BL(P) : 1525 ft/s
 Description : PROPRIETARY

Sample No. : HPW-6 (9mm)
 Heat No. : NA
 Weight : 10.31 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03-04-09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : PER FQ/PD 07-05B (V50)
 Witness Panel : 0.020", 2024-T3 ALUMINUM
 Obliquity : 0 deg.
 Backing Material : NA
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 10.0 ft.
 Primary Vel. Location : 7.5 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 15.0 ft.
 Target to Wit. : 6.0 in.

Range No. : 1
 Temp. : 72 F
 BP : 29.89 in. Hg
 RH : 25%
 Barrel No./Gun : 16GR R/1
 Gunner : L.CHES
 Recorder : ADAMS

AMMUNITION

Projectile : 9mm FMJRN, 124 gr.
 Powder : ACC #2

Lot No. : REMINGTON 23558

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B (V50)
- (2) :
- (3) :

Shot No.	Powder/Seating	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Result	Include in V50	Footnotes
1		2766	1808	2759	1812	1810	P		
2		2564	1950	2571	1945	1947	C	Y	
3		2643	1892	2637	1896	1894	P		
4		2633	1899	2627	1903	1901	P		
5		2554	1958	2544	1965	1962	C	Y	
6		2544	1965	2534	1973	1969	P	Y	
7		2516	1987	2510	1992	1990	P	Y	
8		2516	1987	2509	1993	1990	P	Y	
9		2483	2014	2476	2019	2017	C	Y	

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<u>REMARKS :</u>	<u>FOOTNOTES :</u>	<u>V50 SUMMARY :</u> No. Points : 3 & 3 V50 : 1979 High Partial : 1990 Low Complete : 1947 Range of Results : 70 Range of Mixed : 43
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H.P. White Laboratory, Inc.

BALLISTIC RESISTANCE TEST

Client : RADIATION SHIELD TECHNOLOGIES

Job No. : 11145-01

Test Date : 3/6/09

TEST PANEL

Manufacturer : RADIATION SHIELD TECHNOLOGIES
 Size : 15.25 x 15.25 in.
 Thicknesses : NA
 Avg. Thick. : NA
 Description : PROPRIETARY

Sample No. : HPW-1 (9mm)
 Weight : 16.17 lbs.
 Hardness : NA
 Plies/Laminates : NA

Date Rec'd. : 03/04/09
 Via : Federal Express
 Returned : Federal Express

SET-UP

Shot Spacing : FQ/PD 07-05B
 Witness Panel : CLAY
 Obliquity : 0 & 30 deg.
 Backing Material : 5.5" CLAY/PLYWOOD
 Conditioning : AMBIENT

Primary Vel. Screens : 6.5 ft., 9.5 ft.
 Primary Vel. Location : 8.0 ft. From Muzzle
 Residual Vel. Screens : NA
 Residual Vel. Location : NA
 Range to Target : 16.5 ft.
 Target to Wit. : 0.0 in.

Range No. : 6
 Temp. : 70 F
 BP : 30.03 in. Hg
 RH : 34%
 Barrel No./Gun : 9mm/R1
 Gunner : KELLY/PATTERSON
 Recorder : SMITH

AMMUNITION

(1) : 9mm, FMJ, 124 gr.
 (2) :
 (3) :
 (4) :

Lot No. : REMINGTON 23558
 Lot No. :
 Lot No. :
 Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

- (1) : FQ/PD 07-05B
- (2) : CLAY DROPS: 25mm, 25mm, 25mm
- (3) : CLAY TEMP: 97.3 F

Shot No.	Ammo.	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Footnotes
1	1	2118	1416	NR	NR	1416	None	
2	1	2128	1410	NR	NR	1410	None	
3	1	2097	1431	NR	NR	1431	None	DEF. 22mm
4	1	2119	1416	2127	1410	1413	None	(a)
5	1	2104	1426	2116	1418	1422	None	(a) DEF. 22mm

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<u>REMARKS :</u>	<u>FOOTNOTES :</u> (a) IMPACTED ON A 30 DEGREE ANGLE.
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