Test Lab Report

Date Submitted: 19 May, 1999	**Tracking #:** TLR 9142J
Project #: 241095	**Engineer:** SNEDEKER, J.R.

Test Objective:

Complete ultimate strength / intentional abuse testing on each of 3 of the M/710 EET sample rifles dated 18 May 99. See Phil Reesor.

Test Description:

1. Hand-Load work-up: 30-06 / Case: Rem / Primer: Rem / Projectile: 220 grain SP Round Nose / Powder: IMR 4198, Lot # E92MY12-L3207.
2. U.R. Shooting : Shoot SAAMi 5 rounds minimum, 5 rounds at 35, 37,39,41 and 43 grains. Reevaluate at this time. Shooting for 120k psi.
3. Shoot: A. One rifle will be subjected to a ultra-high pressure hand-loaded round without the bore being obstructed.
   B. A second rifle will be subjected to an ultra-high pressure hand-loaded round with the bore obstructed with 7 .30-06 bullets forced into the bore to a point just ahead of the chamber.
   C. The third rifle will be fired using a standard pressure round but with the firing pin filed at the tip to produce a sharp edge.

Notes: Use the standard forms for recording the results. In addition to the test results, and as a minimum, each data sheet should list the tester's initials, the date, the beginning and ending round level covered by that data sheet. Also, the "TLW..." number, the serial number of the firearm and the sample number and the ammunition type used when the malfunction occurred should be recorded on each data sheet.

Round must be kept in a locked red ammunition box until time to be loaded into the test rifle.

Resource Usage: **Manpower Requirements -** 1 technician; one ammunition technician **Facility Requirements** – blow-up room, hand-loaded ammunition, high speed video system.	**Test Results Required:** **Formal Report:** **Data Only:** X **REQUESTED Completion Date:** 28 May 99
Required Materials/Parts/Equipment (include quantities):	
Test Parts Availability Date: 18 May '99	
Start Date: 17 June 99 **Completion Date:** 22 June 99 **Report Date:** 22 June 99	**Test Assigned To:** Gary Howell Received 16 June 99

Results: 1. Cases available, Projectiles had to pull out of live rounds, powder 180 grams Available.

2. See attachment TLR9142J.

3. A. First gun at 120K fired, bolt won't open, gun to Mike Keeney.

3. B. Second gun fired, gun completely apart, see Jim Snedeker.

3. C. Third gun fired, gun fired normally, case not pierced.

16 July 99 pending !!!

18 May 00 completed !!!

ET09422

21-Jun-99

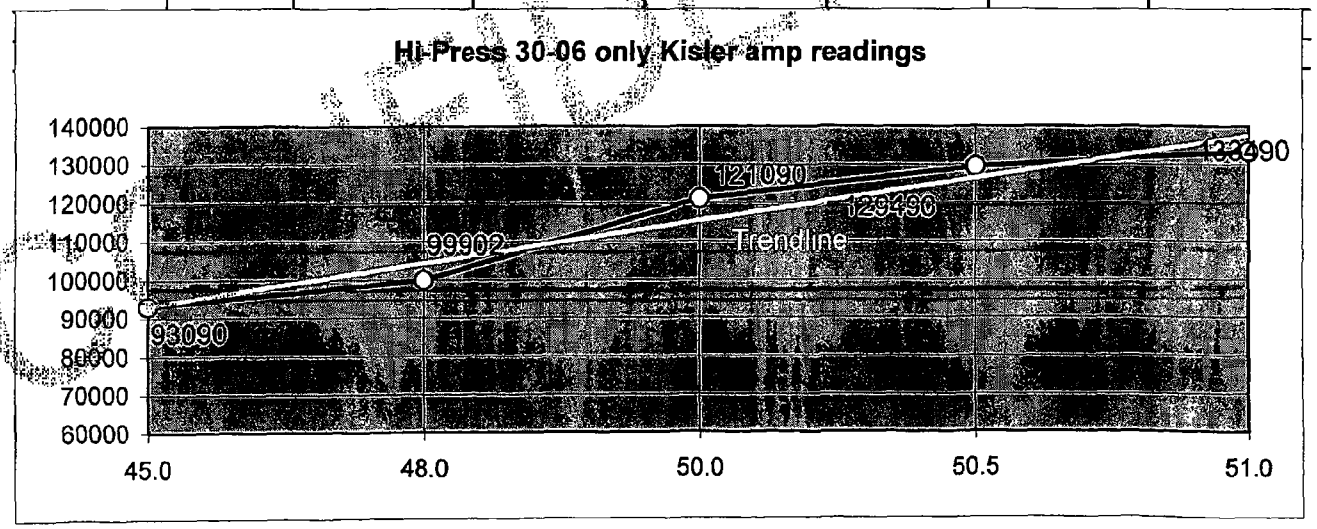
30-06 Hi Pressure Evaluation

U.R. # 129 Transd # 2130

Powder: IMR 4198 Lot # E95MY12/L3207 220 grain SP Round Nose

SAAMI # 30-06SPRG-180-18WW			
10 SHOTS	Shot 48.8K	SAAMI 50.1K	= 1.3 CF
OFFSET 5790	+ CF 1.3K	= 7090 (CF & Offset)	

Grains:	# RDS:	Oehler Pressure Raw Data	AMP:	Scope: Raw Data	Oehler Press with cf & Offset:	Scope Press with cf & Offset:	Oehler Settings:
35	5	43420	PCB 1v=10k	NA	50510	NA	1v=10k
37	5	51367	PCB 1v=10k	NA	58457	NA	1v=10k
39	1	57080	PCB 1v=10k	NA	64170	NA	1v=10k
41	1	64355	PCB 1v=10k	NA	71445	NA	1v=10k
43	1	74609	PCB 1v=10k	NA	81699	NA	1v=10k
45	1	84863	PCB 1v=10k	NA	91953	NA	1v=10k
48	1	99902	PCB 1v=10k	NA	106992	NA	1v=10k
49	1	99951 Max PCB	PCB 1v=10k	NA	10741	NA	1v=10k
50	1	99951 Max PCB	PCB 1v=10k	NA	10741	NA	1v=10k
45	1	86020	Kistler 1v=20k	4.3v = 86k	93110	93090	1v=10k
50	1	115620	Kistler 1v=20k	5.7v = 114k	122710	121090	1v=10k
50.5	1	121420	Kistler 1v=20k	6.12v = 122.4k	128510	129490	1v=10k
51	1	126220	Kistler 1v=20k	6.32v = 126.4k	133310	133490	1v=10k
Warmup	1	51367	Kistler 1v=20k	Missed	58457	Missed	1v= 20k
Warmup	1	51758	Kistler 1v=20k	2.59v = 51.8k	58848	58890	1v= 20k
Warmup	1	47949	Kistler 1v=20k	2.41v = 48.2k	55039	55290	1v= 20k
45	1	90430	Kistler 1v=20k	4.58v = 91.6k	97520	98690	1v= 20k
50	1	116992	Kistler 1v=20k	5.94v = 118.8k	124082	125890	1v= 20k



Suggestions: Use Kistler Amp if going beyond 100k, with scale at 20,000 (1v = 20K).
Oehler use scale of 20,000 (1v = 20k) with no offset or cf.
Tlr9142J

ET09423

35	43420
37	51367
39	57080
41	64355
43	74609
45	93090
48	99902
50	121090
50.5	129490
51	133490