CERTIFICATION DATA SHEET **5-1/8" OD 12 SPF D.P.135°/45° TAG**

PERFORATING SYSTEM EVALUATION, RP 43, SECTIONS 1 AND 2 **TAG-3375-311**

Service Company: AVAILABLE TO ALL FROM OWEN OIL TOOLS, INC
Gun OD & Trade Name: 5-1/8" OD 12 SPF D.P.135°/45° TAG
Charge Name: PERF - 3-3/8" TAG DP/GH RDX
Manufacturer Charge Part No.: TAG-3375-311 Date of Manufacture: 9/20/07
Gun Type: EXPENDABLE, RETRIEVABLE, HOLLOW STEEL CARRIER (THROW AWAY GUN)
Phasing Tested: 135°/45° degrees, Firing Order: X Top down, ____ Bottom up
Debris Description: SMALL STEEL PIECES
Remarks:

Explosive Weight: 23 gm, RDX powder, Case Material: STEEL
Max. Temp, F: 330 1 hr ____ 3 hr ____ 24 hr ____ 100 hr ____ hr
Maximum Pressure Rating: 17000 psi, Carrier Material: OWEN SPEC. STEEL
Shot Density: 12 shots/ft
Recommended Minimum ID for Running: 5.675 in.
Available Firing Mode: X Selective, X Simultaneous.
Debris Weight: NA gm/charge, Debris: NA in.3/charge

SECTION 1 - CONCRETE TARGET

Casing Data: 7" OD, Weight: 32 lb/ft, L-80 API Grade, Date of Concrete Test: 23-Oct-07
Target Data: 72 OD, Briquet Compressive Strength: 5246 psi, Age of Target: 28 days

Shot No.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	
Clearence, in.	0.00	0.81	0.45	0.12	0.97	0.12	0.45	0.81	0.00	0.81	
Casing Hole Diameter, Short Axis, in.	0.49	0.45	0.54	0.55	0.42	0.57	0.56	0.44	0.51	0.43	
Casing Hole Diameter, Long Axis, in.	0.50	0.46	0.51	0.56	0.40	0.57	0.51	0.44	0.52	0.44	
Average Casing Hole Diameter, in.	0.50	0.46	0.53	0.56	0.41	0.57	0.54	0.44	0.52	0.44	
Total Depth, in.	25.90	26.90	26.10	25.30	27.90	24.30	24.80	26.30	24.20	25.70	
Burr Height, in.											
Shot No.	**No. 11**	**No. 12**	**No. 13**	**No. 14**	**No. 15**	**No. 16**	**No. 17**	**No. 18**	**No. 19**	**No. 20**	**Average**
Clearence, in.	0.45	0.12									XXXX
Casing Hole Diameter, Short Axis, in.	0.42	0.50									0.49
Casing Hole Diameter, Long Axis, in.	0.45	0.51									0.49
Average Casing Hole Diameter, in.	0.44	0.51									0.49
Total Depth, in.	26.40	24.80									25.72
Burr Height, in.											0.00

Remarks: PENETRATION NORMALIZED TO 5000 PSI WOULD BE 26.04" (5% PER 1000 PSI)

SECTION 2 - HARD ROCK CORE TARGET

Compressive Strength, ____
Density ASTM C 97, ____
Date of Hard RockTest ____

Shot No.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Average
Faceplate Hole Diameter, Short Axis, in.							
Faceplate Hole Diameter, Long Axis, in.							
Average Faceplate Hole Diameter, in.							
Total Depth, in.							

CERTIFICATION

Type of Certification: [X] Self [ ] Third Party

I certify that these tests were made according to the procedures as outlined in RP 43: Recommended Practices for Evaluation of Well Perforators, Fifth Edition, January 1991. All of the equipment used in these tests, such as the guns, jet charges, detonator cord,etc., was standard with our company for use in the gun being tested, and was not changed in any manner for the test. Furthermore, the equipement was chosen at random from stock and therefore will be substantially the same as the equipement which would be furnished to perforate a well for any operator.

X	CERTIFIED BY	DAN W. PRATT	VICE PRESIDENT - ENGINEERING	10-23-2007	OWEN OIL TOOLS, INC 12001 COUNTY ROAD 1000, GODLEY, TX USA 76044
	RECERTIFIED	(Company Officer)	(Title)	(Date)	(Company) (Adress)