



## REGISTERED DATA SHEET PERFORATING SYSTEM EVALUATION, API RP 19B SECTION 1

Service Company AVAILABLE TO ALL FROM OWEN OIL TOOLS Explosive Weight 23.0 gm, RDX powder, Case Material STEEL  
Gun OD & Trade Name 3 3/8" OD 6SPF DP 60DEG TAG Max. Temp, °F 330 1 hr 3 hr 24 hr 100 hr 200 hr  
Charge Name PERF - 3 3/8" TAG SDP NT RDX Maximum Pressure Rating 20,000 psi, Carrier Material STEEL  
Manufacturer Charge Part No. SDP-3375-311NT Date of Manufacture 17-AUG-2006 Shot Density Tested 6 Shots/ft  
Gun Type SCALLOPED, RETRIEVABLE EXPENDABLE HOLLOW CARRIER Recommended Minimum ID for Running 3.800 in.  
Phasing Tested 60 degrees, Firing Order X Top Down, X Bottom Up Available Firing Mode X Selective, X Simultaneous  
Debris Description SMALL STEEL PIECES Debris Weight N/A gm/charge, Debris N/A in<sup>3</sup>/charge  
Remarks LOW DEBRIS CHARGE AVAILABLE SDP-3375-311Z

## SECTION 1 - CONCRETE TARGET

Casing Data 4.50" OD, Weight 11.6 lb/ft, L-80 API Grade, Date of Section 1 Test 01-NOV-2006  
Target Data 96" OD, Amount of Cement 16,920 lb., Amount of Sand 33,840 lb., Amount of Water 8,725.6 lb.  
Date of Compressive Strength Test 01-NOV-2006, Briquette Compressive Strength 6006 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	No. 11
Clearance, in. ....	0.14	0.45	0.83	0.45	0.14	0.00	0.14	0.45	0.83	0.45	0.14
Casing Hole Diameter, Short Axis, in. ....	0.44	0.43	0.38	0.42	0.38	0.49	0.40	0.41	0.39	0.45	0.41
Casing Hole Diameter, Long Axis, in. ....	0.47	0.45	0.38	0.46	0.43	0.51	0.42	0.44	0.44	0.46	0.42
Average Casing Hole Diameter, in. ....	0.46	0.44	0.38	0.44	0.41	0.50	0.41	0.43	0.42	0.46	0.42
Total Depth, in. ....	31.50	34.25	37.05	37.75	37.05	31.65	34.00	33.75	37.75	33.65	34.55
Burr Height, in. ....	0.07	0.06	0.03	0.05	0.03	0.07	0.05	0.06	0.07	0.07	0.05

Shot No.	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17	No. 18	No. 19	No. 20	No. 21	No. 22	Average
Clearance, in. ....	0.00	0.14	0.45	0.83	0.45	0.14	0.00					XXX
Casing Hole Diameter, Short Axis, in. ....	0.46	0.45	0.40	0.32	0.41	0.45	0.42					0.42
Casing Hole Diameter, Long Axis, in. ....	0.47	0.46	0.45	0.38	0.41	0.47	0.44					0.44
Average Casing Hole Diameter, in. ....	0.47	0.46	0.43	0.35	0.41	0.46	0.43					0.43
Total Depth, in. ....	32.25	36.25	31.00	32.55	35.05	30.75	28.25					33.84
Burr Height, in. ....	0.08	0.07	0.08	0.02	0.06	0.06	0.05					0.06

## WITNESSING INFORMATION

Date of Notice of Intent to Test: September 22 2006 Witnessed by: Jerry Baldwin  
Other Activities Witnessed: Target Pouring      Briquette: Preparation      Testing      Burr Height Measurements      Samples Taken: Concrete X Casing X

## CERTIFICATION

I certify that these tests were made according to the procedures as outlined in API RP 19B: Recommended Practices for Evaluation of Well Perforators, First Edition, November 2000. All of the equipment used in these tests, such as the guns, jet charges detonator cord, etc., was standard equipment with our company for the use in the gun being tested and was not changed in any manner for the test. Furthermore, the equipment was chosen at random from stock and therefore will be substantially the same as the equipment, which would be furnished to perforate a well for any operator. The American Petroleum Institute neither endorses these test results nor recommends the use of the perforator system described.

X CERTIFIED BY [Signature] VICE PRESIDENT - ENGINEERING 1/05/07 OWEN OIL TOOLS 12001 County Road 1000 Godley, TX, USA 76044  
RECERTIFIED (Company Official) (Title) (Date) (Company) (Address)