



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

Service Company AVAILABLE TO ALL FROM OWEN OIL TOOLS Explosive Weight 25.0 gm, HMX powder, Case Material STEEL  
 Gun OD & Trade Name 3 3/8" TAG - 6SPF, 60 DEGREE RAPTOR NT3 Max. Temp, °F 400 1 hr 3 hr 24 hr 100 hr 200 hr  
 Charge Name 3 3/8" SDP NT3, HMX Maximum Pressure Rating 22,000 psi, Carrier Material STEEL  
 Manufacturer Charge Part No. SDP-3375-411NT3 Date of Manufacture 12-MAY-2003 Shot Density Tested 6 Shots/ft  
 Gun Type SCALLOPED, RETRIEVABLE EXPENDABLE HOLLOW CARRIER Recommended Minimum ID for Running 3.75 in.  
 Phasing Tested 60 degrees, Firing Order X Top Down, X Bottom Up Available Firing Mode X Selective, X Simultaneous  
 Debris Description N/A Debris Weight N/A gm/charge, Debris N/A in<sup>3</sup>/charge  
 Remarks RDX VERSION AVAILABLE AS SDP-3375-311NT3

**SECTION 1 - CONCRETE TARGET**

Casing Data 4.5" OD, Weight 11.6 lb/ft, L-80 API Grade, Date of Section 1 Test 06-NOV-2003  
 Target Data 108" OD, Amount of Cement 17995 lb., Amount of Sand 36060 lb., Amount of Water 9355 lb.  
 Date of Compressive Strength Test 6-NOV-2003, Briquette Compressive Strength 6869 psi, Age of Target 58 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	0.63	0.45	0.14	0.00	0.14	0.45	0.63	0.45	0.14
Casing Hole Diameter, Short Axis, in.....	0.42	0.41	0.42	0.44	0.41	0.36	0.43	0.40	0.44	0.41	0.41
Casing Hole Diameter, Long Axis, in.....	0.42	0.41	0.43	0.45	0.41	0.38	0.44	0.41	0.47	0.43	0.42
Average Casing Hole Diameter, in.....	0.42	0.41	0.43	0.45	0.41	0.37	0.44	0.41	0.46	0.42	0.42
Total Depth, in.....	37.25	40.25	40.00	38.75	33.75	37.25	41.75	LOST	32.25	38.75	31.75
Burr Height, in.....	0.07	0.06	0.07	0.06	0.08	0.07	0.10	0.09	0.08	0.06	0.10

  

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	0.63	0.45	0.14	0.00					xxx
Casing Hole Diameter, Short Axis, in.....	0.40	0.43	0.42	0.43	0.41	0.39	0.37					0.41
Casing Hole Diameter, Long Axis, in.....	0.40	0.44	0.45	0.45	0.43	0.41	0.37					0.42
Average Casing Hole Diameter, in.....	0.40	0.44	0.44	0.44	0.42	0.40	0.37					0.42
Total Depth, in.....	40.88	37.75	LOST	35.25	37.25	36.75	36.25					37.21
Burr Height, in.....	0.08	0.07	0.10	0.07	0.07	0.07	0.06					0.07

**WITNESSING INFORMATION**

Date of Notice of Intent to Test: September 22, 2003 Witnessed by: Ed Langford  
 Other Activities Witnessed: Target Pouring      Briquette Preparation      Testing      Burr Height Measurements X 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 11-01-03 OWEN OIL TOOLS 12001 County Road 1000 Godley, TX, USA 76044  
 RECERTIFIED \_\_\_\_\_ (Company Official) (Title) (Date) (Company) (Address)