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CERTIFICATION DATA SHEET

3-1/8" OD, TAG, 12 SPF, 135/45° SDP (SDP-3125-312NT)

FORM 43F

PERFORATING SYSTEM EVALUATION, RP 43, SECTIONS 1 AND 2

SDP-3125-312NT

Service Company AVAILABLE TO ALL FROM OWEN OIL TOOLS, INC. Explosive Weight 9.2 gm, RDX powder, Case Material STEEL

Gun OD & Trade Name ✓ 3-1/8" OD, TAG, 12 SPF, 135/45° SDP (SDP-3125-312NT) Max. Temp, F 330 1 hr 3 hr 24 hr 100 hr _____ hr

Charge Name PERFORATOR, 3-1/8", SDP, RDX Maximum Pressure Rating 21,000 psi, Carrier Material STEEL

Manufacturer Charge Part No. SDP-3125-312NT Date of Manufacture 13-Jan-09 Shot Density 12 shots/ft

Gun Type SCALLPOED, RETRIEVABLE, EXPENDABLE, HOLLOW CARRIER Recommended Minimum ID for Running 3.625 in.

Phasing Tested ✓ 135/45 degrees, Firing Order X Top down, _____ Bottom up Available Firing Mode _____ Selective, _____ X _____ Simultaneous.

Debris Description SMALL STEEL PIECES Debris Weight N/A gm/charge, Debris N/A in.³/charge

Remarks HMX VERSION AVAILABLE AS SDP-3125-412NT

SECTION 1 - CONCRETE TARGET

Casing Data 5" OD, Weight 15 lb/ft, L-80 API Grade, Date of Concrete Test 12-Feb-09

Target Data 60 OD, Briquet Compressive Strength 6125 psi, Age of Target 30 days

Shot No.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	
Clearance, in.	<u>0.00</u>	<u>1.05</u>	<u>0.55</u>	<u>0.14</u>	<u>1.29</u>	<u>0.14</u>	<u>0.55</u>	<u>1.05</u>	<u>0.00</u>	<u>1.05</u>	
Casing Hole Diameter, Short Axis, in.	<u>0.33</u>	<u>0.27</u>	<u>0.35</u>	<u>0.39</u>	<u>0.21</u>	<u>0.40</u>	<u>0.37</u>	<u>0.25</u>	<u>0.33</u>	<u>0.29</u>	
Casing Hole Diameter, Long Axis, in.	<u>0.33</u>	<u>0.28</u>	<u>0.38</u>	<u>0.42</u>	<u>0.23</u>	<u>0.44</u>	<u>0.38</u>	<u>0.28</u>	<u>0.34</u>	<u>0.29</u>	
Average Casing Hole Diameter, in.	<u>0.33</u>	<u>0.28</u>	<u>0.37</u>	<u>0.41</u>	<u>0.22</u>	<u>0.42</u>	<u>0.38</u>	<u>0.27</u>	<u>0.34</u>	<u>0.29</u>	
Total Depth, in.	<u>21.00</u>	<u>23.40</u>	<u>19.40</u>	<u>18.30</u>	<u>19.80</u>	<u>18.90</u>	<u>19.40</u>	<u>20.75</u>	<u>21.20</u>	<u>21.60</u>	
Burr Height, in.	<u>0.04</u>	<u>0.05</u>	<u>0.04</u>	<u>0.04</u>	<u>0.03</u>	<u>0.04</u>	<u>0.02</u>	<u>0.04</u>	<u>0.05</u>	<u>0.03</u>	
Shot No.	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17	No. 18	No. 19	No. 20	Average
Clearance, in.	<u>0.55</u>	<u>0.14</u>	<u>1.29</u>	<u>0.14</u>	<u>0.55</u>	<u>1.05</u>	<u>0.00</u>	<u>1.05</u>	_____	_____	_____
Casing Hole Diameter, Short Axis, in.	<u>0.35</u>	<u>0.39</u>	<u>0.24</u>	<u>0.41</u>	<u>0.35</u>	<u>0.27</u>	<u>0.31</u>	<u>0.26</u>	_____	_____	<u>0.32</u>
Casing Hole Diameter, Long Axis, in.	<u>0.36</u>	<u>0.41</u>	<u>0.24</u>	<u>0.44</u>	<u>0.35</u>	<u>0.31</u>	<u>0.33</u>	<u>0.31</u>	_____	_____	<u>0.34</u>
Average Casing Hole Diameter, in.	<u>0.36</u>	<u>0.40</u>	<u>0.24</u>	<u>0.43</u>	<u>0.35</u>	<u>0.29</u>	<u>0.32</u>	<u>0.29</u>	_____	_____	<u>0.33</u>
Total Depth, in.	<u>21.20</u>	<u>19.10</u>	<u>21.30</u>	<u>18.60</u>	<u>20.30</u>	<u>21.60</u>	<u>21.80</u>	<u>22.40</u>	_____	_____	<u>20.56</u>
Burr Height, in.	<u>0.03</u>	<u>0.04</u>	<u>0.02</u>	<u>0.04</u>	<u>0.06</u>	<u>0.05</u>	<u>0.02</u>	<u>0.03</u>	_____	_____	<u>0.06</u>

Remarks PENETRATION NORMALIZED TO 5000 PSI CONCRETE WOULD BE 21.72" (5% PER 1000 PSI)

SECTION 2 - BEREA SANDSTONE CORE TARGET

	Shot No.	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	Average
Berea Bulk Porosity, _____	Faceplate Hole Diameter, Short Axis, in.	_____	_____	_____	_____	_____	_____	_____
	Faceplate Hole Diameter, Long Axis, in.	_____	_____	_____	_____	_____	_____	_____
Date of Berea Test _____	Average Faceplate Hole Diameter, in.	_____	_____	_____	_____	_____	_____	_____
	Total Depth, in.	_____	_____	_____	_____	_____	_____	_____

CERTIFICATION

Type of Certification: 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 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.

CERTIFIED BY Dan W. Pratt DAN W. PRATT VICE PRESIDENT - ENGINEERING 12-Feb-09 OWEN OIL TOOLS, INC 8900 FORUM WAY, FT. WORTH TX. 76140

RECERTIFIED _____ (Company Officer) (Title) (Date) (Company) (Address)