



Registered Data Sheet Perforating System Evaluation, API RP 19B Section 1

API Form 19B-Section 1 Conforms to All Requirements of Section 1 Special Test - See Remarks/Exceptions below

Service Company Oiltech Services Pte. Ltd. Explosive weight 15 gm, HMX powder, Case Material Steel

Gun OD & Trade Name 2-1/8" Strip Gun Max Temp, °F 375 1 hr 3 hr 24 hr 100 hr 200 hr

Charge Name STR 15g HMX SDP (P/N: OT60327 for Local and OT06311 for Export) Maximum Pressure Rating 20,000 psi, Carrier Material Steel

Manufacturer Charge Part No. See Above Date of Manufacture 1 May 2008 Shot Density Tested 6 Shots/ft _____

Gun Type Wireline Through Tubing Strip, Semi-Expendable Recommended Minimum ID for Running _____ 2.25 _____ in.

Phasing Tested 0 degrees, Firing Order: Top down Bottom up Available Firing Mode: _____ Selective _____ Simultaneous _____

Debris Description Steel Chips Debris Weight 110.5 gm/charge, Debris N/A in³/charge

Remarks/Exceptions per Section 1.11 Debris Fill: 0.110" in 4-1/2" 11.6# ; 0.074" in 5-1/2" 17# ; 0.048" in 7" 32#

Casing Data 5.5" OD, Weight 17.00 lb/ft, API Grade, L-80 Date of Section 1 Test 9 July 2008

Target Data 41" OD, Amount of Cement 1850 lb, Amount of Sand 3700 lb, Amount of Water 961.4 lb.

Date of Compressive Strength Test 9 July 2008 Briquette Compressive Strength 6340 psi, Age of Target 47 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.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Casing Hole Diameter, Short Axis, in	0.23	0.24	0.24	0.24	0.23	0.26	0.24	0.24	0.24	0.24	0.24
Casing Hole Diameter, Long Axis, in	0.25	0.26	0.26	0.27	0.25	0.26	0.25	0.25	0.27	0.28	0.27
Average Casing Hole Diameter, in.	0.24	0.25	0.25	0.25	0.24	0.26	0.25	0.25	0.25	0.26	0.26
Total Depth, in.	25.30	26.30	18.80	28.30	26.80	24.30	25.80	24.30	20.30	26.30	26.30
Burr Height, in.	0.025	0.011	0.015	0.012	0.028	0.036	0.018	0.025	0.038	0.020	0.037

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	0.00	0.00	0.00	0.00	0.00	0.00					XXXXXX
Casing Hole Diameter, Short Axis, in	0.25	0.26	0.25	0.25	0.25	0.24	0.24					0.24
Casing Hole Diameter, Long Axis, in	0.27	0.28	0.28	0.28	0.28	0.24	0.25					0.26
Average Casing Hole Diameter, in.	0.26	0.27	0.27	0.27	0.27	0.25	0.25					0.26
Total Depth, in.	26.30	30.30	23.30	24.30	26.30	27.30	26.80					25.30
Burr Height, in.	0.014	0.033	0.016	0.022	0.006	0.020	0.017					0.022

Remarks _____

Manufacturer's Certification

Type of Certification: _____ Self Third Party

I certify that these tests were made according to the procedures as outlined in API 19B: Recommended Practice for Evaluation of Well Perforators, Second Edition, September 2006. 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 that would be furnished to perforate a well for any operator. API neither endorses these tests nor recommends the use of the perforator system described.

CERTIFIED BY James Lem General Manager 19 August 2008 Oiltech Services Pte. Ltd. 25 Pandan Cres #06-12, TIC Tech Centre, Singapore 128477
 _____ RECERTIFIED (Company Official) (Title) (Date) (Company) (Address)

Name of test as it should appear on website: 2-1/8", STR 15g HMX SDP, 0 deg Phasing, 6 SPF

Name of test as it appears on application and application date: Charge: STR 15g HMX SDP, Gun: 2-1/8" 6 SPF 0 Deg Phase Carrier