

# Discharge Report

**Workspace: 72438-1RiempFSRU-5R**

**Study: Riempimento FSRU-ME4**

**Equipment Item: 5R Linee mandata pompe LNG Feed e collettore GNL durante riempimento**

72438-1RiempFSRU-5R\Riempimento FSRU-ME4\5R Linee mandata pompe LNG Feed e collettore GNL durante riempimento

Material	<b>GAS NATURALE</b>	
East	0	m
North	0	m

## Scenario (Leak) : 70mm

72438-1RiempFSRU-5R\Riempimento FSRU-ME4\5R Linee mandata pompe LNG Feed e collettore GNL durante riempimento\70mm

**Weather: Category 2/F**

### INPUT DATA

#### Inventory data

Mass in vessel	<b>17328,7</b>	kg
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#### Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	<b>9</b>	bar
Initial temperature	<b>-160</b>	degC
Fluid state	<b>Non-saturated liquid</b>	

#### Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	<b>70</b>	mm
Discharge coefficient	<b>0,62</b>	fraction

### OUTPUT DATA

Mass flow rate	68,255	kg/s
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Release duration 253,881 s

### Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,216	degC
Liquid mass fraction	<b>1</b>	fraction
Velocity at vena contracta (at exit for pipe releases)	62,8669	m/s
Discharge coefficient	0,62	

### Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,999206	fraction
Droplet diameter	276,318	um
Expanded diameter	<b>0,0597827</b>	m
Velocity	62,8669	m/s

## Weather: Category 5/D

### INPUT DATA

#### Inventory data

Mass in vessel	<b>17328,7</b>	kg
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#### Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	<b>9</b>	bar
Initial temperature	<b>-160</b>	degC
Fluid state	<b>Non-saturated liquid</b>	

#### Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	<b>70</b>	mm
Discharge coefficient	<b>0,62</b>	fraction

### OUTPUT DATA

Mass flow rate	68,255	kg/s
Release duration	253,881	s

#### Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,216	degC
Liquid mass fraction	<b>1</b>	fraction
Velocity at vena contracta (at exit for pipe releases)	62,8669	m/s
Discharge coefficient	0,62	

#### Final Data (after atmospheric expansion)

Temperature	-160,343	degC
Liquid mass fraction	0,999206	fraction
Droplet diameter	276,318	um
Expanded diameter	<b>0,0597827</b>	m



Velocity	62,8669	m/s
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