

# Discharge Report

**Workspace: 72438-1RiempFSRU-13R**

**Study: Riempimento FSRU-ME4**

**Equipment Item: 13R Linee BOG a metaniera**

72438-1RiempFSRU-13R\Riempimento FSRU-ME4\13R Linee BOG a metaniera

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

## Scenario (Leak) : 80mm

72438-1RiempFSRU-13R\Riempimento FSRU-ME4\13R Linee BOG a metaniera\80mm

**Weather: Category 2/F**

### INPUT DATA

#### Inventory data

Mass in vessel	<b>451,159</b>	kg
----------------	----------------	----

#### Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	<b>1</b>	bar
Initial temperature	<b>-110</b>	degC
Fluid state	<b>Pressurized gas</b>	

#### Scenario data

Phase to be released	Vapour	
Hole diameter	<b>80</b>	mm
Discharge coefficient	<b>0,62</b>	fraction

### OUTPUT DATA

Mass flow rate	1,55722	kg/s
Release duration	289,721	s

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



Pressure	1,09415	bar
Temperature	-132,787	degC
Liquid mass fraction	<b>0</b>	fraction
Velocity at vena contracta (at exit for pipe releases)	287,33	m/s
Discharge coefficient	0,62	

### **Final Data (after atmospheric expansion)**

Temperature	-134,871	degC
Liquid mass fraction	0	fraction
Droplet diameter	0	um
Expanded diameter	<b>0,0636136</b>	m
Velocity	300	m/s



## Weather: Category 5/D

### INPUT DATA

#### Inventory data

Mass in vessel	451,159	kg
----------------	---------	----

#### Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	1	bar
Initial temperature	-110	degC
Fluid state	Pressurized gas	

#### Scenario data

Phase to be released	Vapour	
Hole diameter	80	mm
Discharge coefficient	0,62	fraction

### OUTPUT DATA

Mass flow rate	1,55722	kg/s
Release duration	289,721	s

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

Pressure	1,09415	bar
Temperature	-132,787	degC
Liquid mass fraction	0	fraction
Velocity at vena contracta (at exit for pipe releases)	287,33	m/s
Discharge coefficient	0,62	

#### Final Data (after atmospheric expansion)

Temperature	-134,871	degC
Liquid mass fraction	0	fraction
Droplet diameter	0	um
Expanded diameter	0,0636136	m
Velocity	300	m/s



