

# JET FIRE REPORT

Study Folder: RDSPoggiofiorito

Unique Audit Number: 3.060

PHAST 6.5



RDSPoggiofiorito

Study

4" D10

Base Case

Data



Weather: Study\Category 2/F

Speed: 2,00 m/s

Stability: F

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## Flame Data

### User-Defined Quantities

Model Correlation Type	<b>SHELL - Johnson</b>	
Material	METHANE	
Ambient Temperature	25,00	degC
Ambient Relative Humidity	0,75	fraction
Ambient Pressure	1,01	bar
Ambient Wind Speed	2,00	m/s
Maximum Exposure Duration	20,00	s
Elevation	1,00	m
Expanded Temperature	-98,42	degC
Release Rate	1,89	kg/s
Liquid Fraction		fraction
Jet Angle from Horizontal	0,00	deg
Crosswind Angle	0,00	deg

	Input	Output
Flame Emissive Power		165,77 kW/m2
Expanded Radius		0,03 m
Jet Velocity	500,00	m/s
Flame Length		16,32 m
Frustrum Lift Off Distance		4,70 m
Frustrum Length		11,72 m
Frustrum Base Width		0,78 m
Frustrum Tip Width		2,47 m
Flame Length in Still Air		20,09 m
Hole to Flame Angle		13,92 deg
Plane Angular Rotation		0,00 deg

### Flame Co-ordinates

X	Z	R	Phi
m	m	m	deg
4,70	1,00	0,00	76,08
4,70	1,00	0,39	76,08
16,07	3,82	1,23	76,08
16,07	3,82	0,00	76,08



**Radiation Intensity Ellipse**

**User-Defined Quantities**

Observer Inclination	Variable	deg
Observer Orientation	Variable	deg
Exposure Duration	20,00	s

**Calculated Quantities**

<b>Incident Radiation Level:</b>	<b>3,00</b>	<b>kW/m2</b>
Lethality Level	0,00	%
View Factor	0,02	
Dose Level	865.118,83	(W/m2)^Probit N.s

Downwind semi-axis (A)	11,64	m
Crosswind semi-axis (B)	15,55	m
Offset Ratio (D)	1,18	
Effect Distance	25,33	m
Area	568,66	m2

<b>Incident Radiation Level:</b>	<b>5,00</b>	<b>kW/m2</b>
Lethality Level	0,00	%
View Factor	0,03	
Dose Level	1.709.490,54	(W/m2)^Probit N.s

Downwind semi-axis (A)	10,08	m
Crosswind semi-axis (B)	11,98	m
Offset Ratio (D)	1,26	
Effect Distance	22,82	m
Area	379,30	m2

<b>Incident Radiation Level:</b>	<b>12,50</b>	<b>kW/m2</b>
Lethality Level	6,53	%
View Factor	0,08	
Dose Level	5.800.161,90	(W/m2)^Probit N.s

Downwind semi-axis (A)	7,78	m
Crosswind semi-axis (B)	6,88	m
Offset Ratio (D)	1,46	
Effect Distance	19,16	m
Area	168,05	m2

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## Radiation Distance

### User-Defined Quantities

Maximum Distance	32,14	m
Angle from Wind Direction	0,00	deg
Height above Origin	0,00	m
Observer Inclination	Variable	deg
Observer Orientation	Variable	deg

### Calculated Quantities

X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
0,00			1,04		
0,66			1,26		
1,31			1,78		
1,97			2,83		
2,62			4,84		
3,28			8,97		
3,94			17,84		
4,59			32,23		
5,25			47,10		
5,90			54,58		
6,56			54,91		
7,22			54,19		
7,87			53,33		
8,53			52,50		
9,18			51,73		
9,84			51,01		
10,50			50,30		
11,15			49,59		
11,81			48,82		
12,46			47,91		
13,12			46,75		
13,78			45,02		
14,43			42,46		
15,09			38,52		
15,74			32,89		
16,40			25,93		
17,06			19,92		
17,71			17,78		
18,37			15,27		
19,02			12,95		
19,68			10,88		
20,34			9,15		
20,99			7,72		
21,65			6,56		
22,30			5,62		
22,96			4,84		
23,62			4,20		

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X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
24,27			3,68		
24,93			3,23		
25,58			2,86		
26,24			2,55		
26,90			2,28		
27,55			2,05		
28,21			1,85		
28,86			1,68		
29,52			1,53		
30,18			1,40		
30,83			1,28		
31,49			1,18		
32,14			1,09		

 **Weather:** Study/Category 5/D  
**Speed:** 5.00 **m/s** **Stability:** D

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## Flame Data

### User-Defined Quantities

Model Correlation Type	<b>SHELL - Johnson</b>
Material	METHANE
Ambient Temperature	25,00 degC
Ambient Relative Humidity	0,75 fraction
Ambient Pressure	1,01 bar
Ambient Wind Speed	5,00 m/s
Maximum Exposure Duration	20,00 s
Elevation	1,00 m
Expanded Temperature	-98,42 degC
Release Rate	1,89 kg/s
Liquid Fraction	fraction
Jet Angle from Horizontal	0,00 deg
Crosswind Angle	0,00 deg

	<b>Input</b>	<b>Output</b>
Flame Emissive Power		159,69 kW/m2
Expanded Radius		0,03 m
Jet Velocity	500,00	m/s
Flame Length		17,14 m
Frustrum Lift Off Distance		4,70 m
Frustrum Length		12,50 m
Frustrum Base Width		0,78 m
Frustrum Tip Width		2,25 m
Flame Length in Still Air		20,09 m
Hole to Flame Angle		10,66 deg
Plane Angular Rotation		0,00 deg

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## Flame Co-ordinates

X	Z	R	Phi
m	m	m	deg
4,70	1,00	0,00	79,34
4,70	1,00	0,39	79,34
16,98	3,31	1,12	79,34
16,98	3,31	0,00	79,34

## Radiation Intensity Ellipse

### User-Defined Quantities

Observer Inclination	Variable	deg
Observer Orientation	Variable	deg
Exposure Duration	20,00	s

### Calculated Quantities

<b>Incident Radiation Level:</b>	<b>3,00</b>	kW/m2
Lethality Level	0,00	%
View Factor	0,02	
Dose Level	865.118,83	(W/m2)^Probit N.s

Downwind semi-axis (A)	11,62	m
Crosswind semi-axis (B)	15,26	m
Offset Ratio (D)	1,17	
Effect Distance	25,22	m
Area	556,79	m2

<b>Incident Radiation Level:</b>	<b>5,00</b>	kW/m2
Lethality Level	0,00	%
View Factor	0,03	
Dose Level	1.709.490,54	(W/m2)^Probit N.s

Downwind semi-axis (A)	10,18	m
Crosswind semi-axis (B)	11,66	m
Offset Ratio (D)	1,26	
Effect Distance	23,00	m
Area	373,04	m2

<b>Incident Radiation Level:</b>	<b>12,50</b>	kW/m2
Lethality Level	6,53	%
View Factor	0,08	
Dose Level	5.800.161,90	(W/m2)^Probit N.s

Downwind semi-axis (A)	8,09	m
Crosswind semi-axis (B)	6,56	m
Offset Ratio (D)	1,45	
Effect Distance	19,79	m
Area	166,65	m2

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## Radiation Distance

### User-Defined Quantities

Maximum Distance	33,96	m
Angle from Wind Direction	0,00	deg
Height above Origin	0,00	m
Observer Inclination	Variable	deg
Observer Orientation	Variable	deg

### Calculated Quantities

X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
0,00			0,91		
0,69			1,31		
1,39			1,99		
2,08			3,21		
2,77			5,60		
3,47			10,76		
4,16			22,02		
4,85			32,33		
5,55			52,37		
6,24			54,93		
6,93			54,72		
7,62			54,10		
8,32			53,44		
9,01			52,81		
9,70			52,22		
10,40			51,66		
11,09			51,11		
11,78			50,56		
12,48			49,97		
13,17			49,25		
13,86			48,30		
14,56			46,84		
15,25			44,40		
15,94			40,18		
16,64			33,41		
17,33			24,40		
18,02			19,76		
18,72			17,13		
19,41			14,04		
20,10			11,36		
20,79			9,21		
21,49			7,51		
22,18			6,19		
22,87			5,16		
23,57			4,34		
24,26			3,69		
24,95			3,17		

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X Coordinates m	Y Coordinates m	Z Coordinates m	Incident Radiation kW/m2	Lethality Level %	View Factor
25,65			2,75		
26,34			2,40		
27,03			2,11		
27,73			1,86		
28,42			1,66		
29,11			1,49		
29,81			1,34		
30,50			1,21		
31,19			1,10		
31,89			1,00		
32,58			0,92		
33,27			0,84		
33,96			0,77		