```
Michał Lidwa 3ID14A
Technologie IoT - Analityka Big
Data (Projekt)
Temat projektu: Algierskie
pożary lasów
```

## O danych:

- Zbiór danych obejmuje 244 przypadki, które przegrupowują dane z dwóch regionów Algierii, mianowicie regionu Bejaia położonego w północno-wschodniej Algierii i regionu Sidi Bel-abbes położonego w północno-zachodniej Algierii.
- 122 instancje dla każdego regionu.
- Okres od czerwca 2012 r. do września 2012 r.
- Zestaw danych zawiera 11 atrybutów i 1 atrybut wyjściowy (klasa)
- 244 instancje zostały podzielone na klasy fire (138 klas), a not fire (106 klas).

## Informacje o atrybutach:

- Date: (day/month/year) Dzień, miesiąc (od 'czerwiec' do 'wrzesień'), rok (2012)
- Temp: Temperatura w południe (maksymalna temperatura) w stopniach Celsjusza: 22 do 42
- RH: Wilgotność względna (w %): 21 do 90
- Ws: Prędkość wiatru (w km/h): 6 do 29
- Rain: Całkowity dzień w mm: 0 do 16,8 FWI Komponenty
- Indeks Dokładnego kodu wilgotności paliwa (FFMC) z systemu FWI: 28,6 do 92,5
- Indeks Kodu wilgotności Duffa (DMC) z systemu FWI: 1.1 do 65,9
- Indeks Kodu suszy (DC) z systemu FWI: od 7 do 220,4
- Indeks Początkowego spreadu (ISI) z systemu FWI: 0 do 18,5
- Indeks Budowania (BUI) z systemu FWI: 1.1 do 68
- Indeks Pogody pożarowej (FWI): 0 do 31.1
- Klasy: Fire and not Fire

## Importowanie podstawowych bibliotek

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import geopandas as gpd
from sklearn.model_selection import train_test_split
```

```
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from sklearn.linear_model import LinearRegression
from sklearn.preprocessing import StandardScaler
from sklearn import metrics
from sklearn.metrics import mean_squared_error, mean_absolute_error, mean_absolute
from sklearn.tree import DecisionTreeClassifier
from sklearn import tree
from sklearn.tree import export_graphviz
from sklearn.metrics import classification_report
from sklearn.metrics import accuracy_score
from sklearn.metrics import ConfusionMatrixDisplay
from sklearn.ensemble import RandomForestRegressor
import sqlite3
import statsmodels.api as sm
from sklearn.datasets import load iris
Odczyt danych z pliku sqlite3
poloczenie = sqlite3.connect('Algerian_forest_fires_dataset.db')
Przerabianie danych na potrzeby analiz przez bilioteke pandas i zamkniecie bilbioteki
```

```
In [ ]:
```

```
dane = pd.read_sql_query("SELECT * FROM Algerian_forest_fires_dataset ", polocze
In [ ]:
        poloczenie.close()
```

Wyswietlenie informacji o danych

```
In [ ]: dane.info()
```

<class 'pandas.core.frame.DataFrame'> RangeIndex: 247 entries, 0 to 246 Data columns (total 14 columns):

#	Column	Non-Null Count	Dtype
0	day	246 non-null	object
1	month	245 non-null	object
2	year	245 non-null	object
3	Temperature	245 non-null	object
4	RH	245 non-null	object
5	Ws	245 non-null	object
6	Rain	245 non-null	object
7	FFMC	245 non-null	object
8	DMC	245 non-null	object
9	DC	245 non-null	object
10	ISI	245 non-null	object
11	BUI	245 non-null	object
12	FWI	245 non-null	object
13	Classes	244 non-null	object
dtyp	es: object(14	)	

memory usage: 27.1+ KB

Wyświetlenie kolumn danych

```
In [ ]: dane.columns
Out[ ]: Index(['day', 'month', 'year', 'Temperature', 'RH', 'Ws', 'Rain', 'FFMC',
                'DMC', 'DC', 'ISI', 'BUI', 'FWI', 'Classes'],
              dtype='object')
```

## Wyświetlenie ilosci danych

```
dane.nunique()
   In [ ]:
   Out[ ]:
             day
                                 33
             month
                                  5
                                  2
             year
             Temperature
                                 20
             RH
                                 63
             Ws
                                 19
             Rain
                                 40
             FFMC
                                174
             DMC
                                167
             DC
                                199
             ISI
                                107
             BUI
                                175
             FWI
                                127
             Classes
                                  9
             dtype: int64
             Wyswietlenie pierwszych 5 wierszy danych
             dane.head()
   Out[]:
                      month
                               year Temperature
                                                    RH
                                                         Ws
                                                              Rain
                                                                     FFMC
                                                                            DMC
                                                                                    DC
                                                                                         ISI
                                                                                              BUI
                                                                                                   FWI
                                                                                                         Classes
             0
                                                                                    7.6
                   1
                            6
                               2012
                                                29
                                                     57
                                                          18
                                                                0.0
                                                                      65.7
                                                                              3.4
                                                                                         1.3
                                                                                               3.4
                                                                                                     0.5
                                                                                                          not fire
                              2012
              1
                   2
                                                                      64.4
                                                                                               3.9
                                                29
                                                     61
                                                          13
                                                                1.3
                                                                              4.1
                                                                                    7.6
                                                                                           1
                                                                                                     0.4
                                                                                                          not fire
             2
                   3
                                                                                         0.3
                            6 2012
                                                     82
                                                          22
                                                               13.1
                                                                      47.1
                                                                              2.5
                                                                                    7.1
                                                                                               2.7
                                                                                                     0.1
                                                                                                          not fire
                                                26
                                                                                                          not fire
              3
                   4
                              2012
                                                25
                                                     89
                                                          13
                                                                2.5
                                                                      28.6
                                                                              1.3
                                                                                    6.9
                                                                                           0
                                                                                               1.7
                                                                                                      0
              4
                   5
                              2012
                                                27
                                                     77
                                                          16
                                                                0.0
                                                                      64.8
                                                                                   14.2
                                                                                         1.2
                                                                                              3.9
                                                                                                     0.5
                                                                                3
                                                                                                          not fire
<
             Wyświetlenie ostatnich 5 wierszy danych
             dane.tail()
   In [ ]:
   Out[]:
                   day
                         month
                                        Temperature
                                                      RH
                                                           Ws
                                                                 Rain
                                                                       FFMC DMC
                                                                                       DC
                                                                                           ISI
                                                                                                BUI
                                                                                                      FWI
                                                                                                            Class
                                  year
              242
                                 2012
                                                                         85.4
                                                                                     44.5
                                                                                                16.9
                                                                                                       6.5
                    26
                              9
                                                  30
                                                       65
                                                            14
                                                                  0.0
                                                                                 16
                                                                                           4.5
              243
                    27
                              9
                                 2012
                                                  28
                                                            15
                                                                  4.4
                                                                         41.1
                                                                                 6.5
                                                                                        8
                                                                                           0.1
                                                                                                 6.2
                                                                                                         0
                                                                                                            not f
                                                       87
              244
                    28
                              9
                                 2012
                                                  27
                                                       87
                                                            29
                                                                  0.5
                                                                         45.9
                                                                                       7.9
                                                                                           0.4
                                                                                                       0.2
                                                                                 3.5
                                                                                                 3.4
                                                                                                            not f
              245
                                 2012
                                                                         79.7
                     29
                                                  24
                                                       54
                                                            18
                                                                  0.1
                                                                                 4.3
                                                                                      15.2
                                                                                           1.7
                                                                                                 5.1
                                                                                                       0.7
                                                                                                            not f
              246
                              9 2012
                                                                  0.2
                    30
                                                  24
                                                       64
                                                            15
                                                                         67.3
                                                                                 3.8
                                                                                    16.5
                                                                                          1.2
                                                                                                 4.8
                                                                                                       0.5
                                                                                                            not f
             Wyświetlenie wszystkich danych
             print(dane.to_string())
```

					day	mont	h	year Temper	rature	RH	Ws	Rain
FFMC 0	DMC	DC	ISI	BUI	1			Classes 2012	29	57	18	0.0
65.7	3.4	7.6	1.3	3.4	_	0.5		not fire		5,	10	0.0
1 64.4	4.1	7.6	1	3.9	2	0.4		2012 not fire	29	61	13	1.3
2	4.1	7.0	1	3.9	3			2012	26	82	22	13.1
47.1	2.5	7.1	0.3	2.7	4	0.1		not fire	25	00	4.5	2.5
3 28.6	1.3	6.9	0	1.7	4	0	6	2012 not fire	25	89	13	2.5
4					5		6	2012	27	77	16	0.0
64.8 5	3	14.2	1.2	3.9	6	0.5	6	not fire 2012	31	67	14	0.0
82.6	5.8	22.2	3.1	7	U	2.5		fire	31	07	14	0.0
6					7		6	2012	33	54	13	0.0
88.2 7	9.9	30.5	6.4	10.9	8		6	fire 2012	30	73	15	0.0
86.6	12.1	38.3	5.6	13.5				fire				
8 52.9	7.9	38.8	0.4	10.5	9	0.3	6	2012 not fire	25	88	13	0.2
9	7.9	30.0	0.4	10.5	10			2012	28	79	12	0.0
73.2	9.5	46.3	1.3	12.6		0.9		not fire				
10 84.5	12.5	54.3	4	15.8	11	5.6	6	2012 fire	31	65	14	0.0
11	12.5	54.5	7	13.0	12	3.0	6	2012	26	81	19	0.0
84.0	13.8	61.4	4.8	17.7	12	7.1	_	fire	27	0.4	24	1.2
12 50.0	6.7	17	0.5	6.7	13	0.2	6	2012 not fire	27	84	21	1.2
13					14		6	2012	30	78	20	0.5
59.0 14	4.6	7.8	1	4.4	15	0.4		not fire 2012	28	80	17	3.1
49.4	3	7.4	0.4	3		0.1		not fire	20	80	17	3.1
15					16	_		2012	29	89	13	0.7
36.1 16	1.7	7.6	0	2.2		0		not fire 2012	30	89	16	0.6
37.3	1.1	7.8	0	1.6		0		not fire				
17	1 0	8	0.7	2.4				2012	31	78	14	0.3
56.9 18	1.9	0	0.7	2.4				not fire 2012	31	55	16	0.1
	4.5	16	2.5					not fire				
19 59.8	3.4	27 1	0.9	5 1				2012 not fire	30	80	16	0.4
20	3.4	2,.1	0.5	J.1		0.4			30	78	14	0.0
	6.3	31.6	2.6	8.4				fire	21	67	17	0 1
21 79.1	7	39.5	2.4	9.7		2.3		2012 not fire	31	67	17	0.1
22					23		6	2012	32	62	18	0.1
81.4 23	8.2	47.7	3.3	11.5				fire 2012	32	66	17	0.0
	11.2	55.8	5.6	14.9				fire	32	00	17	0.0
24	44.0	62.0		40.0				2012	31	64	15	0.0
86./ 25	14.2	63.8	5./	18.3				fire 2012	31	64	18	0.0
86.8	17.8	71.8	6.7	21.6		10.6		fire				
26	21 6	90.2	0.2	25 0		10		2012 fire	34	53	18	0.0
89.0 27	21.0	00.3	۶.۷	25.8		15			32	55	14	0.0
	25.5	88.5	7.6			13.9		fire				
28 79.9	18.4	84 4	2.2	23.8				2012 not fire	32	47	13	0.3
		• •	- · -	•								

							2012	33	50	14	0.0
22.9	92.8	7.2	28.3					29	68	19	1.0
2.5	8.6	1.1	2.9				not fire				
2 4	0 2	0 0	2 0	2				27	75	19	1.2
2.4	0.5	0.0	2.0	3		7	2012	32	76	20	0.7
2.6	9.2	1.3	3				not fire				
16	10 5	2 7	5 7	4				33	78	17	0.0
4.0	10.5	2.7	3.7	5				33	66	14	0.0
7.6	27.9	4.8	9.1								
10 9	37	5.6	12 5	6				32	63	14	0.0
10.5	3,	3.0	12.5	7		7	2012	35	64	18	0.2
9.7	40.4	2.8	12.1				not fire				
12 5	49.8	6	15 <i>4</i>	8				33	68	19	0.0
12.5	43.0	Ü	13.4	9			2012	32	68	14	1.4
7.7	9.2	1.1	7.4				not fire				
6	9.3	1.1	5.8	10				33	69	13	0.7
				11		7	2012	33	76	14	0.0
8.1	18.7	2.6	8.1	4.0	2.2		not fire	24	7.5	4.2	0.4
7.9	27.7	1.5	9.2		0.9			31	/5	13	0.1
	_, ,,	_,,		13			2012	34	81	15	0.0
9.7	37.2	3	11.7				not fire	2.4	<i>C</i> 1	12	0.6
7.8	22.9	1.4	8.4					34	91	13	0.6
				15		7	2012	30	80	19	0.4
5.2	17	1.1	5.9					28	76	21	0.0
7	25.5	0.7	8.3					20	70	21	0.0
								29	70	14	0.0
9.4	34.1	3.2	11.1					31	68	14	0.0
12.1	43.1	4.6	14.2					31	00		0.0
4.2	F2 0	7 7	10.2					35	59	17	0.0
12	52.8	/./	18.2					33	65	15	0.1
12.3	62.1	2.8	16.5								
18 5	71 5	5 2	22 /					33	70	17	0.0
10.5	71.5	٥.2	22.4					28	79	18	0.1
16.4	79.9	1.8	21.7								
10.5	71.3	1.8	15.4					27	66	22	0.4
		_,,						28	78	16	0.1
9.6	79.7	1.4	14.7					24	65	10	0.0
12.5	88.7	4.8	18.5					31	65	18	0.0
								36	53	19	0.0
17.1	98.6	10	23.9					26	10	12	0.0
22.2	108.5	8.7	29.4					30	46	13	0.0
				28		7	2012	33	76	15	0.0
24.4	117.8	5.6	32.1					32	73	15	0.0
26.7	127	5.6	35					32	, 5		0.0
	2.4 2.6 4.6 7.6 10.9 9.7 12.5 7.7 6 8.1 7.9 9.7 7.8 5.2 7 9.4 12.1 12 12.3 18.5 16.4 10.5 9.6 12.5 17.1 22.2 24.4	2.5 8.6 2.4 8.3 2.6 9.2 4.6 18.5 7.6 27.9 10.9 37 9.7 40.4 12.5 49.8 7.7 9.2 6 9.3 8.1 18.7 7.9 27.7 9.7 37.2 7.9 27.7 9.7 37.2 7.8 22.9 5.2 17 7 25.5 9.4 34.1 12.1 43.1 12.1 43.1 12.1 43.1 12.1 43.1 12.1 52.8 12.3 62.1 18.5 71.5 16.4 79.9 10.5 71.3 9.6 79.7 12.5 88.7 17.1 98.6 22.2 108.5 24.4 117.8	2.5       8.6       1.1         2.4       8.3       0.8         2.6       9.2       1.3         4.6       18.5       2.7         7.6       27.9       4.8         10.9       37       5.6         9.7       40.4       2.8         12.5       49.8       6         7.7       9.2       1.1         8.1       18.7       2.6         7.9       27.7       1.5         9.7       37.2       3         7.8       22.9       1.4         5.2       17       1.1         7       25.5       0.7         9.4       34.1       3.2         12.1       43.1       4.6         12.3       62.1       2.8         18.5       71.5       5.2         16.4       79.9       1.8         10.5       71.3       1.8         19.6       79.7       1.4         12.5       88.7       4.8         17.1       98.6       10         22.2       108.5       8.7         24.4       117.8       5.6	2.5       8.6       1.1       2.9         2.4       8.3       0.8       2.8         2.6       9.2       1.3       3         4.6       18.5       2.7       5.7         7.6       27.9       4.8       9.1         10.9       37       5.6       12.5         9.7       40.4       2.8       12.1         12.5       49.8       6       15.4         7.7       9.2       1.1       7.4         6       9.3       1.1       5.8         8.1       18.7       2.6       8.1         7.9       27.7       1.5       9.2         9.7       37.2       3       11.7         7.8       22.9       1.4       8.4         5.2       17       1.1       5.9         7       25.5       0.7       8.3         9.4       34.1       3.2       11.1         12.1       43.1       4.6       14.2         12.3       62.1       2.8       16.5         18.5       71.5       5.2       22.4         16.4       79.9       1.8       15.4         9.6	22.9       92.8       7.2       28.3       1         2.5       8.6       1.1       2.9       2         2.4       8.3       0.8       2.8       3         2.6       9.2       1.3       3       4         4.6       18.5       2.7       5.7       5         7.6       27.9       4.8       9.1       6         10.9       37       5.6       12.5       7         9.7       40.4       2.8       12.1       8         12.5       49.8       6       15.4       9         7.7       9.2       1.1       7.4       10         8.1       18.7       2.6       8.1       12         9.7       37.2       3       11.7       14         7.9       27.7       1.5       9.2       13         9.7       37.2       3       11.7       14         7.8       22.9       1.4       8.4       15         9.4       34.1       3.2       11.1       18         12.1       43.1       4.6       14.2       19         12.3       62.1       2.8       16.5       2	22.9       92.8       7.2       28.3       12.9         2.5       8.6       1.1       2.9       0.4         2.4       8.3       0.8       2.8       0.3         2.6       9.2       1.3       3       0.5         4.6       18.5       2.7       5.7       1.7         7.6       27.9       4.8       9.1       4.9         10.9       37       5.6       12.5       6       6.8         9.7       40.4       2.8       12.1       3.2         8       12.5       49.8       6       15.4       8       8         9.7       40.4       2.8       12.1       3.2       8         12.5       49.8       6       15.4       9       6.8         7.7       9.2       1.1       7.4       9.6       6.8         12.5       49.8       6       15.4       9       9.6         7.7       9.2       1.1       7.4       9.6       9.5         18.1       18.7       2.6       8.1       2.2         7.9       27.7       1.5       9.2       0.9         9.7       37.2 <td< td=""><td>22.9       92.8       7.2       28.3       12.9       7         2.5       8.6       1.1       2.9       0.4       7         2.4       8.3       0.8       2.8       0.3       7         2.6       9.2       1.3       3       0.5       7         4.6       18.5       2.7       5.7       1.7       7         7.6       27.9       4.8       9.1       4.9       7         10.9       37       5.6       12.5       6.8       7         10.9       37       5.6       12.5       6.8       7         10.9       37       5.6       12.5       6.8       7         10.9       37       5.6       12.5       6.8       7         12.5       49.8       6       15.4       8       8       7         12.5       49.8       6       15.4       9.8       8       7         7.7       9.2       1.1       7.4       0.6       7         8.1       18.7       2.6       8.1       1.2       7         7.9       27.7       1.5       9.2       0.9       9         9.7<td>  1</td><td>  22.9   92.8   7.2   28.3   12.9   fire     29   29   20.4   20.4   not fire   20   7   2012   27   2012   27   2012   27   2012   27   2012   27   2012   27   2012   32   32   32   33   6.5   7   2012   33   30   6.5   7   2012   33   30   30   30   30   30   30   3</td><td>  22.9   92.8   7.2   28.3   12.9   7   2012   29   68   68   1   2.9   6.4   6.4   6.5   6.5   7   2012   27   75   75   75   7   2012   27   75   75   75   7   2012   27   75   75   7   2012   27   75   75   7   2012   27   75   75   7   2012   27   27   27   27   27   27   27  </td><td>  22.9</td></td></td<>	22.9       92.8       7.2       28.3       12.9       7         2.5       8.6       1.1       2.9       0.4       7         2.4       8.3       0.8       2.8       0.3       7         2.6       9.2       1.3       3       0.5       7         4.6       18.5       2.7       5.7       1.7       7         7.6       27.9       4.8       9.1       4.9       7         10.9       37       5.6       12.5       6.8       7         10.9       37       5.6       12.5       6.8       7         10.9       37       5.6       12.5       6.8       7         10.9       37       5.6       12.5       6.8       7         12.5       49.8       6       15.4       8       8       7         12.5       49.8       6       15.4       9.8       8       7         7.7       9.2       1.1       7.4       0.6       7         8.1       18.7       2.6       8.1       1.2       7         7.9       27.7       1.5       9.2       0.9       9         9.7 <td>  1</td> <td>  22.9   92.8   7.2   28.3   12.9   fire     29   29   20.4   20.4   not fire   20   7   2012   27   2012   27   2012   27   2012   27   2012   27   2012   27   2012   32   32   32   33   6.5   7   2012   33   30   6.5   7   2012   33   30   30   30   30   30   30   3</td> <td>  22.9   92.8   7.2   28.3   12.9   7   2012   29   68   68   1   2.9   6.4   6.4   6.5   6.5   7   2012   27   75   75   75   7   2012   27   75   75   75   7   2012   27   75   75   7   2012   27   75   75   7   2012   27   75   75   7   2012   27   27   27   27   27   27   27  </td> <td>  22.9</td>	1	22.9   92.8   7.2   28.3   12.9   fire     29   29   20.4   20.4   not fire   20   7   2012   27   2012   27   2012   27   2012   27   2012   27   2012   27   2012   32   32   32   33   6.5   7   2012   33   30   6.5   7   2012   33   30   30   30   30   30   30   3	22.9   92.8   7.2   28.3   12.9   7   2012   29   68   68   1   2.9   6.4   6.4   6.5   6.5   7   2012   27   75   75   75   7   2012   27   75   75   75   7   2012   27   75   75   7   2012   27   75   75   7   2012   27   75   75   7   2012   27   27   27   27   27   27   27	22.9

59		426		3= 4				2012	31	79	15	0.0
85.4 60	28.5	136	4.7	3/.4		10.7		fire 2012	35	64	17	0.0
87.2	31.9	145.7	6.8	41.2				fire	2.5	4.5		
61 78.8	4.8	10.2	2	4.7	1	0.9		2012 not fire	36	45	14	0.0
62					2		8	2012	35	55	12	0.4
78.0 63	5.8	10	1.7	5.5	3	0.8		not fire 2012	35	63	14	0.3
76.6	5.7	10	1.7	5.5		0.8		not fire		03		0.5
64 85.0	8.2	19.8	4	8.2	4			2012 fire	34	69	13	0.0
65	0.2	19.0	4	0.2	5	5.9		2012	34	65	13	0.0
86.8	11.1	29.7	5.2	11.5	6			fire	22	75	1.4	0.0
66 86.4	13	39.1	5.2	14.2	6			2012 fire	32	75	14	0.0
67	45.5	40.5		4= 0				2012	32	69	16	0.0
86.5 68	15.5	48.6	5.5	17.2		8		fire 2012	32	60	18	0.3
77.1	11.3	47	2.2	14.1	_			not fire				
69 87.4	14.8	57	6.9	17.9		9.9		2012 fire	35	59	17	0.0
70							8	2012	35	55	14	0.0
88.9 71	18.6	67	7.4	21.9	11	11.6		fire 2012	35	63	13	0.0
88.9	21.7	77	7.1	25.5				fire	55	05	13	0.0
72 81.3	15 6	75.1	2.5	20.7		4.2		2012 not fire	35	51	13	0.3
73	15.6	/5.1	2.5	20.7		4.2		2012	35	63	15	0.0
87.0	19	85.1	5.9	24.4				fire	22		1.4	0.0
74 87.0	21.7	94.7	5.7	27.2		10.6		2012 fire	33	66	14	0.0
75									36	55	13	0.3
82.4 76	15.6	92.5	3.7					fire 2012	36	61	18	0.3
80.2	11.7	90.4	2.8			4.2		fire				
77 89.3	16	100.7	9.7	22.9				2012 fire	37	52	18	0.0
78					18		8	2012	36	54	18	0.0
89.4 79	20	110.9	9.7	27.5		16.1		fire 2012	35	62	19	0.0
89.4	23.2	120.9	9.7	31.3				fire	33	02	10	0.0
80	25 0	120 6	0 0	24 7		16 0		2012 fire	35	68	19	0.0
81	23.9	130.0	0.0	34.7		10.0			36	58	19	0.0
	29.6	141.1	9.2	38.8		18.4		fire	26		10	0.0
82 89.1	33.5	151.3	9.9	43.1				2012 fire	36	55	18	0.0
83	2= 4	464 -	10.4	4				2012	36	53	16	0.0
89.5 84	37.6	161.5	10.4	47.5				fire 2012	34	64	14	0.0
88.9	40.5	171.3	9	50.9		20.9		fire				
85 88.9	43.9	181.3	8.2	54.7		20.3		2012 fire	35	60	15	0.0
86					26		8	2012	31	78	18	0.0
85.8 87	45.6	190.6	4.7	57.1				fire 2012	33	82	21	0.0
	47	200.2	4.4	59.3		13 2		fire	رر	02	<b>41</b>	0.0
88	EQ 2	210 4	7 2	62.0	28	10 0	8	2012 fine	34	64	16	0.0
07.4	30.2	210.4	1.3	02.9		19.9		fire				

20							_	2012	2.5	4.0	4.0	
89	E4 2	220 4	12 E	67 1	29			2012 fire	35	48	18	0.0
90.1 90	54.2	220.4	12.5	67.4	30		8	2012	35	70	17	0.8
72.7	25.2	180.4	1 7	37.4	30	4.2		not fire	33	70	17	0.8
91	23.2	1001	_,,	3,	31		8	2012	28	80	21	16.8
52.5	8.7	8.7	0.6	8.3	-	0.3		not fire	_0			
92					1		9	2012	25	76	17	7.2
46.0	1.3	7.5	0.2	1.8		0.1		not fire				
93					2		9	2012	22	86	15	10.1
30.5	0.7	7	0	1.1				not fire				
94					3		9	2012	25	78	15	3.8
42.6	1.2	7.5	0.1	1.7		0		not fire				
95					4		9	2012	29	73	17	0.1
68.4	1.9	15.7	1.4	2.9	_	0.5		not fire	20	7.5	1.0	0.0
96 80.8	2.4	2.4	2.0	г 1	5		9	2012	29	75	16	0.0
80.8 97	3.4	24	2.8	5.1	6	1.7	9	fire 2012	29	74	19	0 1
75.8	3.6	32.2	2.1	5.6	О	0.9		not fire	29	74	19	0.1
98	3.0	32.2	2.1	5.0	7		9	2012	31	71	17	0.3
69.6	3.2	30.1	1.5	5.1	,	0.6		not fire	31	, _	_,	0.5
99	3.2	30.1	2.5	3.1	8		9	2012	30	73	17	0.9
62.0	2.6	8.4	1.1	3		0.4		not fire				
100					9			2012	30	77	15	1.0
56.1	2.1	8.4	0.7	2.6		0.2		not fire				
101					10		9	2012	33	73	12	1.8
59.9	2.2	8.9	0.7	2.7				not fire				
102					11			2012	30	77	21	1.8
58.5	1.9	8.4	1.1	2.4		0.3		not fire				
103					12		9	2012	29	88	13	0.0
71.0	2.6	16.6	1.2	3.7				not fire				
104	4.5			4.0	13			2012	25	86	21	4.6
40.9	1.3	7.5	0.1	1.8		0		not fire	22	7.0	26	0.0
105 47.4	1 1	7	0.4	1 6	14		9	2012	22	76	26	8.3
106	1.1	7	0.4	1.6	15			not fire 2012	24	82	15	0.4
44.9	a 9	7.3	a 2			0		not fire	24	82	13	0.4
107	0.5	, , ,	0.2		16				30	65	14	0.0
78.1	3.2	15.7	1.9	4.2								
108					17			2012	31	52	14	0.0
87.7	6.4	24.3	6.2	7.7		5.9		fire				
109					18		9	2012	32	49	11	0.0
89.4	9.8	33.1	6.8	11.3		7.7		fire				
110					19				29	57	14	0.0
89.3	12.5	41.3	7.8	14.2		9.7		fire				
111					20		9		28	84	18	0.0
83.8	13.5	49.3	4.5	16		6.3		fire	24			
112	16 5	F7 0	г 4	10.2	21				31	55	11	0.0
87.8	16.5	57.9	5.4	19.2	22	8.3		fire 2012	31	50	19	0.6
113 77.8	10.6	41.4	2.4	12.9				not fire	31	שכ	19	0.6
114	10.0	41.4	2.4	12.5	23				32	54	11	0.5
73.7	7.9	30.4	1.2	9.6	23				32	54	11	0.5
115	,	3014	1.2	3.0	24				29	65	19	0.6
68.3	5.5	15.2	1.5	5.8								
116					25			2012	26	81	21	5.8
48.6	3	7.7	0.4	3								
117					26			2012	31	54	11	0.0
82.0	6	16.3	2.5	6.2								
118					27				31	66	11	0.0
85.7	8.3	24.9	4	9		4.1		fire				

119					28		9	2012	32	47	14	0.7
77.5	7.1	8.8	1.8	6.8		0.9		not fire				
120					29		9	2012	26	80	16	1.8
47.4	2.9	7.7	0.3	3		0.1		not fire				
121					30		9	2012	25	78	14	1.4
45.0	1.9	7.5	0.2	2.4		0.1		not fire				
122				1	lone	Nor	ne	None	None	None	None	None
None	None	None	None	None		None		No	ne			
123	Sidi-Bel	Abbes	Regio	n Data	set	Nor	ne	None	None	None	None	None
None	None	None	None	None		None		No	ne			
124					day	mon	th	year Tem	perature	RH	Ws	Rain
FFMC	DMC	DC	ISI	BUI		FWI		Classes				
125					1		6	2012	32	71	12	0.7
57.1	2.5	8.2	0.6	2.8		0.2		not fire				
126					2		6	2012	30	73	13	4.0
55.7	2.7	7.8	0.6	2.9		0.2		not fire				
127					3		6	2012	29	80	14	2.0
48.7	2.2	7.6	0.3	2.6		0.1		not fire				
128					4		6	2012	30	64	14	0.0
79.4	5.2	15.4	2.2	5.6		1		not fire				
129					5		6	2012	32	60	14	0.2
77.1	6	17.6	1.8	6.5		0.9		not fire				
130					6		6	2012	35	54	11	0.1
83.7	8.4	26.3	3.1	9.3		3.1		fire				
131					7		6	2012	35	44	17	0.2
85.6	9.9	28.9	5.4	10.7		6		fire				
132					8		6	2012	28	51	17	1.3
71.4	7.7	7.4	1.5	7.3		0.8		not fire				
133					9		6	2012	27	59	18	0.1
78.1	8.5	14.7	2.4	8.3		1.9		not fire				
134					10		6	2012	30	41	15	0.0
89.4	13.3	22.5	8.4	13.1		10		fire				
135					11		6	2012	31	42	21	0.0
90.6	18.2	30.5	13.4	18		16.7		fire				
136								2012	27	58	17	0.0
	21.3	37.8	8.7	21.2				fire	2.0		4.5	
137		- 0		40.0					30	52	15	2.0
72.3	11.4	7.8	1.4	10.9				not fire	27	70	1.0	0.7
138	<i>c</i> 1	7 2	0 5	<i>c</i> 1		0.2			27	79	16	0.7
53.4	6.4	7.3	0.5	6.1		0.3			20	00	15	0.0
139 66.8	7 2	117	1 2	7 1		0.6		2012	28	90	15	0.0
140	7.2	14.7	1.2	7.1	16	0.0		not fire 2012	29	87	15	0.4
47.4	4.2	8	0.2	4.1	10				23	67	13	0.4
141	4.2	0	0.2	4.1		0.1			31	69	17	4.7
62.2	3.9	8	1.1	3.8	17			not fire	71	0,5	17	4.7
142	3.3	Ü		3.0		0.4			33	62	10	8.7
65.5	4.6	8.3	0.9	4.4				not fire	33	02	10	0.7
143	1.0	0.5	0.5	• • •		•••			32	67	14	4.5
64.6	4.4	8.2	1	4.2					32	0,		
144			_			• • • • • • • • • • • • • • • • • • • •			31	72	14	0.2
60.2	3.8	8	0.8	3.7				not fire				
145									32	55	14	0.0
86.2	8.3	18.4	5	8.2				fire				
146			-					2012	33	46	14	1.1
78.3	8.1	8.3	1.9	7.7				not fire				
147					23				33	59	16	0.8
74.2	7	8.3	1.6	6.7		0.8		not fire				
148					24		6	2012	35	68	16	0.0
85.3	10	17	4.9	9.9		5.3		fire				

149					25				34	70	16	0.0
86.0 150	12.8	25.6	5.4	12.7	26			fire 2012	36	62	16	0.0
87.8	16.5	34.5	7	16.4				fire	30	02	10	0.0
151	20.0	42.2			27			2012	36	55	15	0.0
89.1 152	20.9	43.3	8	20.8	28	12		fire 2012	37	37	13	0.0
92.5	27.2	52.4	11.7	27.1		18.4		fire				
153	4= 0	24 =		4= 0	29		6		37	36	13	0.6
86.2 154	17.9	36.7	4.8	17.8	30	7.2		fire 2012	34	42	15	1.7
79.7	12	8.5	2.2	11.5				ot fire				
155	2.2	0.5	4.2	2.2	1			2012	28	58	18	2.2
63.7 156	3.2	8.5	1.2	3.3	2	0.5		not fire 2012	33	48	16	0.0
87.6	7.9	17.8	6.8	7.8	_			fire		.0		
157	0 7	27.2	4 7	40.3	3				34	56	17	0.1
84.7 158	9.7	27.3	4.7	10.3	4	5.2	7	fire 2012	34	58	18	0.0
88.0	13.6	36.8	8	14.1	·	9.9		fire	٥.	50	10	0.0
159	40 =		44.5	10.	5		7	2012	34	45	18	0.0
90.5 160	18.7	46.4	11.3	18.7	6	15	7	fire 2012	35	42	15	0.3
84.7	15.5	45.1	4.3	16.7		6.3		fire				
161	4.5	25.4		42 =	7		7		38	43	13	0.5
85.0 162	13	35.4	4.1	13.7	8	5.2		fire 2012	35	47	18	6.0
80.8	9.8	9.7	3.1	9.4				fire				
163			2.0	•	9			2012	36	43	15	1.9
82.3 164	9.4	9.9	3.2	9	10		7	fire 2012	34	51	16	3.8
77.5	8	9.5	2	7.7	10				34	J <u>-</u>	10	3.0
165	- 4	0. =			11				34	56	15	2.9
74.8 166	7.1	9.5	1.6		12			not fire 2012	36	44	13	0.0
	12.6	19.4	8.3					fire				
167	44.2	10.4	4.2	10.0				2012	39	45	13	0.6
85.2 168	11.3	10.4	4.2	10.9				fire 2012	37	37	18	0.2
88.9	12.9	14.6 9	12.5	10.4	fi	re		None				• • •
169	40	24.4	40.0	47.7				2012	34	45	17	0.0
90.5 170	18	24.1	10.9	1/./		14.1		fire 2012	31	83	17	0.0
84.5	19.4	33.1	4.7	19.2		7.3		fire				
171	24 4	42.2	4 7	20.0				2012	32	81	17	0.0
84.6 172	21.1	42.3	4.7	20.9		/./		fire 2012	33	68	15	0.0
	23.9	51.6	5.2	23.9				fire				
173	27.0	61.1	7 2	27.7				2012	34	58	16	0.0
88.1 174	27.8	61.1	7.3	2/./				fire 2012	36	50	16	0.0
89.9	32.7	71	9.5	32.6		17.3		fire				
175	20. 6	90.6	10 г	20 F				2012	36	29	18	0.0
93.9 176	39.6	80.6	18.5	39.5		30		fire 2012	32	48	18	0.0
91.5	44.2	90.1	13.2	44		25.4		fire				
177 87 3	16 6	00	6 0	16 E		16 3		2012 fire	31	71	17	0.0
178	40.0	23	0.9					2012	33	63	17	1.1
	20.9	56.6	1.6					not fire				

179					25			39	64	9	1.2
73.8 180	11.7	15.9	1.1	11.4	26		not fire 2012	35	58	10	0.2
78.3	10.8	19.7	1.6	10.7	20	1	not fire	33	50	10	0.2
181					27			29	87	18	0.0
80.0	11.8	28.3	2.8	11.8							
182	45.7	27.6	6 7	45.7	28			33	57	16	0.0
87.5 183	15.7	3/.6	6.7	15.7	29	9	fire 2012	34	59	16	0.0
88.1	19.5	47.2	7.4	19.5			fire	5-1	33	10	0.0
184					30			36	56	16	0.0
88.9	23.8	57.1	8.2	23.8			fire				
185 89.3	28.3	67.2	8.3	28.3		1/1 5	2012 fire	37	55	15	0.0
186	20.5	07.2	0.5	20.5		14.5	2012	38	52	14	0.0
78.3	4.4	10.5	2	4.4			not fire				
187							2012	40	34	14	0.0
93.3	10.8	21.4	13.8	10.6			fire	20	22	17	0.0
188 93.7	17.1	32 1	17.2	16 9		19 5	2012 fire	39	33	17	0.0
189	17.1	32.1	17.2	10.5		10.5	2012	38	35	15	0.0
93.8	23	42.7	15.7	22.9		20.9	fire				
190								34	42	17	0.1
88.3 191	23.6	52.5	19	23.5	6	12.6	fire 2012	30	54	14	3.1
70.5	11	9.1	1.3	10.5		0.8		36	54	14	3.1
192			_,,					34	63	13	2.9
69.7	7.2	9.8	1.2	6.9		0.6	not fire				
193	11 2	20.2	F 2	11	8	F 0	2012	37	56	11	0.0
87.4 194	11.2	20.2	5.2	11	9	5.9	fire 2012	39	43	12	0.0
91.7	16.5	30.9	9.6				fire	33	73	12	0.0
195					10			39	39	15	0.2
	15.8	35.4	8.2				fire				
196 94 2	22 5	46.3	16 6				2012 fire	40	31	15	0.0
197	22.5	40.5	10.0	22.4			2012	39	21	17	0.4
	18.4	41.5	15.5	18.4			fire				
198								35	34	16	0.2
88.3 199	16.9	45.1	7.5	17.5		10.5	fire 2012	27	40	12	0.0
91.9	22.3	55.5	10.8	22.3			fire	37	40	13	0.0
200								35	46	13	0.3
83.9	16.9	54.2	3.5	19			fire				
201	22.6	CF 1	0 5	24.2		14 0		40	41	10	0.1
202	22.6	65.1	9.5	24.2		14.8	fire 2012	42	24	9	0.0
	30.3	76.4	15.7	30.4			fire			-	
203								37	37	14	0.0
	35.9	86.8	16	35.9			fire	2.5		4.5	0.4
204 82.7	32 7	96.8	2 2	35 5			2012 fire	35	66	15	0.1
205	32.7	20.0	3.3	55.5	20			36	81	15	0.0
83.7	34.4	107	3.8	38.1			fire				
206								36	71	15	0.0
86.0 207	36.9	117.1	5.1	41.3		12.2	fire 2012	37	53	14	00
	41.1	127.5	8	45.5			fire	3/	23	14	0.0
208	- · <b>-</b>		-				2012	36	43	16	0.0
91.2	46.1	137.7	11.5	50.2		24.5	fire				

209									35	38	15	0.0
92.1 210	51.3	147.7	12.2	54.9		26.9		fire 2012	34	40	18	0.0
92.1 211	56.3	157.5	14.3	59.5	26		8		33	37	16	0.0
92.2 212	61.3	167.2	13.1	64	27	30.3		fire 2012	36	54	14	0.0
	65.9	177.3	10	68				fire	35	56	14	0.4
79.2 214	37	166	2.1	30.6		6.1		not fire 2012	35	53	17	0.5
80.2	20.7	149.2	2.7	30.6		5.9		fire				
215 89.2	24.8	159.1	8.1	35.7		16		fire	34	49	15	0.0
216 89.1	27.8	168.2	9.8	39.3				2012 fire	30	59	19	0.0
217 37.9	0.9	8.2	0.1	1.4	1	0		not fire	29	86	16	0.0
218 75.4	2.9	16.3	2	4	2	0.8		2012 not fire	28	67	19	0.0
219 82.2	4.4	24.3	3.3	6	3	2.5		2012 fire	28	75	16	0.0
220 73.5	4.1	26.6	1.5	6	4	0.7			30	66	15	0.2
221 66.1	4	8.4	1	3.9	5		9		30	58	12	4.1
222	3.3	9.1	1	3.5	6		9	2012	34	71	14	6.5
223							9	2012	31	62	15	0.0
83.3	5.8	17.7	3.8	6.4	8		9		30	88	14	0.0
82.5 225	6.6		3	8.1	9		9	fire 2012	30	80	15	0.0
83.1 226	7.9	34.5	3.5				9	fire 2012	29	74	15	1.1
59.5 227	4.7	8.2	0.8	4.6				not fire 2012	30	73	14	0.0
79.2 228	6.5	16.6	2.1	6.6	12	1.2		not fire 2012	31	72	14	0.0
84.2 229	8.3	25.2	3.8	9.1	13	3.9		fire 2012	29	49	19	0.0
88.6 230	11.5	33.4	9.1	12.4				fire	28	81	15	0.0
	12.6	41.5	4.3	14.3				fire	32	51	13	0.0
88.7	16	50.2	6.9	17.8				fire				
232 93.9	21.2	59.2	14.2	22.4		19.3		fire	33	26	13	0.0
233 92.5	25.2	63.3	11.2	26.2				fire	34	44	12	0.0
234 90.6	25.8	77.8	9	28.2				2012 fire	36	33	13	0.1
235 83.9	24.9	86	2.7	28.9		5.6		2012 fire	29	41	8	0.1
236 79.5	18.7	88	2.1	24.4		3.8		2012 not fire	34	58	13	0.2
237					21		9	2012 fire	35	34	17	0.0
238					22		9	2012 fire	33	64	13	0.0
55.5		_00.5	, . <u>+</u>	22.7		-5.7		1110				

239					23	9	9	2012	35	56	14	0.0
89.0	29.4	115.6	7.5	36		15.2		fire				
240					24	9	9	2012	26	49	6	2.0
61.3	11.9	28.1	0.6	11.9		0.4		not fire				
241					25	9	9	2012	28	70	15	0.0
79.9	13.8	36.1	2.4	14.1		3		not fire				
242					26	9	9	2012	30	65	14	0.0
85.4	16	44.5	4.5	16.9		6.5		fire				
243					27	9	9	2012	28	87	15	4.4
41.1	6.5	8	0.1	6.2		0		not fire				
244					28	9	9	2012	27	87	29	0.5
45.9	3.5	7.9	0.4	3.4		0.2		not fire				
245					29	9	9	2012	24	54	18	0.1
79.7	4.3	15.2	1.7	5.1		0.7		not fire				
246					30	9	9	2012	24	64	15	0.2
67.3	3.8	16.5	1.2	4.8		0.5		not fire				

Opis ilosc danych w tabeli kategoriami

In [ ]: dane.describe()

Out[ ]:		day	month	year	Temperature	RH	Ws	Rain	FFMC	DMC	DC	ISI	BUI	FW
	count	246	245	245	245	245	245	245.0	245.0	245.0	245	245.0	245	245.0
	unique	33	5	2	20	63	19	40.0	174.0	167.0	199	107.0	175	127.0
	top	1	7	2012	35	64	14	0.0	88.9	7.9	8	1.1	3	0.4
	freq	8	62	244	29	10	43	133.0	8.0	5.0	5	8.0	5	12.0
														>

Sprawdzanie wartości które sa puste (null)

dane[dane.isnull().any(axis=1)] Out[]: day month year **Temperature** RH Ws Rain FFMC **DMC** DC ISI Вι 122 None Sidi-Bel Abbes 123 None None None None None None None None None Region Dataset

37

37

Podsumowanie danych ile są puste dla danego atrybutu

2012

7

In [ ]: dane.isnull().sum()

14

168

14.6

12.5

10

0.2

18

88.9

12.9

```
Out[]: day
                        1
                       2
        month
        year
        Temperature 2
        RH
                       2
                       2
        Ws
        Rain
                        2
        FFMC
                       2
        DMC
                       2
        DC
                        2
        ISI
                        2
        BUI
                        2
        FWI
                        2
        Classes
                        3
        dtype: int64
        Usunięcie danych gdzie jest brak danych (null)
        dane=dane.dropna().reset_index(drop=True)
In [ ]:
        Sprawdzanie danych po usunięciu
        dane[dane.isnull().any(axis=1)]
          day month year Temperature RH Ws Rain FFMC DMC DC ISI BUI FWI Classes
In [ ]:
        dane.isnull().sum()
Out[]: day
                        0
        month
                        0
        year
                        0
        Temperature
        RH
        Ws
                        0
        Rain
                        0
        FFMC
                        0
        DMC
        DC
                        0
        ISI
        BUI
        FWI
        Classes
        dtype: int64
        Wyswietlenie wszytkich danych po operacji
        print(dane.to_string())
In [ ]:
```

BUI	day FWI	month	year Tempo	erature	RH	Ws	Rain	FFMC	DMC	DC	ISI	
0	гиі 1	6	2012	29	57	18	0.0	65.7	3.4	7.6	1.3	
3.4	0.5		fire	23	57	10	0.0	05.7	3.4	7.0	1.5	
1	2	6	2012	29	61	13	1.3	64.4	4.1	7.6	1	
3.9	0.4		fire									
2	3	6	2012	26	82	22	13.1	47.1	2.5	7.1	0.3	
2.7	0.1	not	fire									
3	4	6	2012	25	89	13	2.5	28.6	1.3	6.9	0	
1.7	0	not	fire									
4	5	6	2012	27	77	16	0.0	64.8	3	14.2	1.2	
3.9	0.5		fire									
5	6	6	2012	31	67	14	0.0	82.6	5.8	22.2	3.1	
7	2.5		ire									
6	7	6	2012	33	54	13	0.0	88.2	9.9	30.5	6.4	1
0.9	7.2		fire	2.0		4-		0.5	10.4	20.2		_
7	8	6	2012	30	73	15	0.0	86.6	12.1	38.3	5.6	1
3.5	7.1		fire	25	0.0	12	0.3	F2 0	7.0	20.0	0.4	1
8	9	6	2012 fire	25	88	13	0.2	52.9	7.9	38.8	0.4	1
0.5 9	0.3 10	6	2012	28	79	12	0.0	73.2	9.5	46.3	1.3	1
2.6	0.9		fire	20	75	12	0.0	/3.2	9.3	40.3	1.5	1
10	11	6	2012	31	65	14	0.0	84.5	12.5	54.3	4	1
5.8	5.6	O	fire	31	05	1-7	0.0	04.5	12.5	54.5	_	-
11	12	6	2012	26	81	19	0.0	84.0	13.8	61.4	4.8	1
7.7	7.1	Ü	fire	20	0_		0.0	00	13.0	02.	1.0	_
12	13	6	2012	27	84	21	1.2	50.0	6.7	17	0.5	
6.7	0.2		fire									
13	14	6	2012	30	78	20	0.5	59.0	4.6	7.8	1	
4.4	0.4	not	fire									
14	15	6	2012	28	80	17	3.1	49.4	3	7.4	0.4	
3	0.1	not f	ire									
15	16	6	2012	29	89	13	0.7	36.1	1.7	7.6	0	
2.2	0		fire									
16	17	6	2012	30	89	16	0.6	37.3	1.1	7.8	0	
1.6	0	not	fire									
17	18	6	2012	31	78	14	0.3	56.9	1.9	8	0.7	
2.4	0.2		fire									
18	19	6		31	55	16	0.1	79.9	4.5	16	2.5	
5.3	1.4		fire	2.0					2.4	0= 4		
19	20		2012	30	80	16	0.4	59.8	3.4	27.1	0.9	
5.1	0.4		fire	20	70	1.1	0.0	01 0	6.3	21 6	2.6	
20 8.4	21 2.2	6	2012 fire	30	78	14	0.0	81.0	6.3	31.6	2.6	
21	2.2	6		31	67	17	0.1	79.1	7	39.5	2.4	
9.7	2.3		fire	31	07	1/	0.1	/5.1	,	39.3	2.4	
22	2.3	6	2012	32	62	18	0.1	81.4	8.2	47.7	3.3	1
1.5	3.8	O	fire	32	02	10	0.1	01.4	0.2	47.7	3.3	_
23	24	6	2012	32	66	17	0.0	85.9	11.2	55.8	5.6	1
4.9	7.5	Ü	fire	32	00	_,	0.0	03.3		33.0	3.0	_
24	25	6	2012	31	64	15	0.0	86.7	14.2	63.8	5.7	1
8.3	8.4		fire									
25	26	6	2012	31	64	18	0.0	86.8	17.8	71.8	6.7	2
1.6	10.6		fire									
26	27	6	2012	34	53	18	0.0	89.0	21.6	80.3	9.2	2
5.8	15		fire									
27	28	6	2012	32	55	14	0.0	89.1	25.5	88.5	7.6	2
9.7	13.9		fire									
28	29	6	2012	32	47	13	0.3	79.9	18.4	84.4	2.2	2
3.8	3.9	not	fire									

29	30	6	2012	33	50	14	0.0	88.7	22.9	92.8	7.2	2
8.3 30	12.9 1	7	fire 2012	29	68	19	1.0	59.9	2.5	8.6	1.1	
2.9 31	0.4 2	not 7	fire 2012	27	75	19	1.2	55.7	2.4	8.3	0.8	
2.8	0.3		fire									
32 3	3 0.5	7 not fi		32	76	20	0.7	63.1	2.6	9.2	1.3	
33	4		2012	33	78	17	a a	80.1	4.6	18.5	2.7	
5.7	1.7		fire	55	, 0	-,	0.0	00.1	4.0	10.5	2.,,	
34	5		2012	33	66	14	0.0	85.9	7.6	27.9	4.8	
9.1	4.9		fire									
35	6	7	2012	32	63	14	0.0	87.0	10.9	37	5.6	1
2.5	6.8	_	fire									
36	7	7		35	64	18	0.2	80.0	9.7	40.4	2.8	1
2.1 37	3.2 8		fire 2012	22	68	19	0.0	85.6	12.5	49.8	6	1
5.4	8	/	fire	33	00	19	0.0	00.0	12.5	49.8	О	1
38	9	7	2012	32	68	14	1.4	66.6	7.7	9.2	1.1	
7.4	0.6		fire				_,					
39	10	7	2012	33	69	13	0.7	66.6	6	9.3	1.1	
5.8	0.5	not	fire									
40	11	7		33	76	14	0.0	81.1	8.1	18.7	2.6	
8.1	2.2		fire									
41	12		2012	31	75	13	0.1	75.1	7.9	27.7	1.5	
9.2 42	0.9 13	not 7	fire 2012	34	81	15	0 0	81.8	9.7	37.2	3	1
1.7	3.4		fire	54	01	13	0.0	01.0	9.7	37.2	5	1
43	14		2012	34	61	13	0.6	73.9	7.8	22.9	1.4	
8.4	0.8		fire									
44	15	7		30	80	19	0.4	60.7	5.2	17	1.1	
5.9	0.5	not	fire									
45	16		2012	28	76	21	0.0	72.6	7	25.5	0.7	
8.3	0.4		fire									
46	17	/	2012	29	70	14	0.0	82.8	9.4	34.1	3.2	1
1.1 47	3.6 18	7	fire 2012	31	68	14	a a	85 <i>4</i>	12.1	43.1	4.6	1
4.2	6	,	fire	J <u>-</u>	00		0.0	03.4		73.1	4.0	-
48	19	7	2012	35	59	17	0.0	88.1	12	52.8	7.7	1
8.2	10.9		fire									
49	20	7	2012	33	65	15	0.1	81.4	12.3	62.1	2.8	1
6.5	4		fire									
50	21	7	2012	33	70	17	0.0	85.4	18.5	71.5	5.2	2
2.4 51	8.8 22	7	fire 2012	28	79	18	0.1	73.4	16.4	79.9	1.8	2
1.7	2.8		fire	20	79	10	0.1	/3.4	10.4	79.9	1.0	2
52	23	7	2012	27	66	22	0.4	68.2	10.5	71.3	1.8	1
5.4	2.1		fire									
53	24	7	2012	28	78	16	0.1	70.0	9.6	79.7	1.4	1
4.7	1.3	not	fire									
54	25	7		31	65	18	0.0	84.3	12.5	88.7	4.8	1
8.5	7.3	_	fire									_
55	26 15.2	7		36	53	19	0.0	89.2	17.1	98.6	10	2
3.9 56	15.3 27	7	fire 2012	36	48	13	a a	90.3	22.2	108.5	8.7	2
9.4	15.3	,	fire	50	-0	1.0	٥.٥	20.3	~~ · ~	100.0	0./	_
57	28	7	2012	33	76	15	0.0	86.5	24.4	117.8	5.6	3
2.1	11.3		fire									
58	29		2012	32	73	15	0.0	86.6	26.7	127	5.6	
35	11.9	1	fire									

59	30	7	2012	31	79	15	0.0	85.4	28.5	136	4.7	3
7.4 60	10.7 31	7	fire 2012	35	64	17	0.0	87.2	31.9	145.7	6.8	4
1.2	15.7		fire									
61	1	8	2012	36	45	14	0.0	78.8	4.8	10.2	2	
4.7	0.9		fire									
62	2	8	2012	35	55	12	0.4	78.0	5.8	10	1.7	
5.5	0.8		fire	25	63	1.1	0.2	76 6	F 7	10	1 7	
63 5.5	3 0.8	8 not	2012 fire	35	63	14	0.3	76.6	5.7	10	1.7	
64	4	8	2012	34	69	13	0.0	85.0	8.2	19.8	4	
8.2	3.9		fire					0210	0.1		·	
65	5	8	2012	34	65	13	0.0	86.8	11.1	29.7	5.2	1
1.5	6.1		fire									
66	6	8	2012	32	75	14	0.0	86.4	13	39.1	5.2	1
4.2	6.8		fire									
67	7	8	2012	32	69	16	0.0	86.5	15.5	48.6	5.5	1
7.2	8	0	fire	22	60	10	0.2	77 1	11 2	47	2.2	1
68 4.1	8 2.6	8 not	2012 fire	32	60	18	0.3	77.1	11.3	47	2.2	1
69	9	8	2012	35	59	17	0.0	87.4	14.8	57	6.9	1
7.9	9.9	O	fire	55	55	Τ,	0.0	07.4	14.0	37	0.5	-
70	10	8	2012	35	55	14	0.0	88.9	18.6	67	7.4	2
1.9	11.6		fire									
71	11	8	2012	35	63	13	0.0	88.9	21.7	77	7.1	2
5.5	12.1		fire									
72	12	8	2012	35	51	13	0.3	81.3	15.6	75.1	2.5	2
0.7	4.2		fire			4-			4.0	05.4	- 0	_
73 4 4	13	8	2012	35	63	15	0.0	87.0	19	85.1	5.9	2
4.4 74	10.2 14	8	fire 2012	33	66	14	0.0	87.0	21.7	94.7	5.7	2
7.2	10.6	0	fire	,,	00	14	0.0	87.0	21.7	24.7	5.7	_
75	15	8	2012	36	55	13	0.3	82.4	15.6	92.5	3.7	
22	6.3		fire									
76	16	8	2012	36	61	18	0.3	80.2	11.7	90.4	2.8	1
7.6	4.2		fire									
77	17	8	2012	37	52	18	0.0	89.3	16	100.7	9.7	2
2.9	14.6	_	fire									_
78	18	8	2012	36	54	18	0.0	89.4	20	110.9	9.7	2
7.5 79	16.1 19	8	fire 2012	35	62	19	0.0	90 1	23.2	120.9	9.7	2
1.3	17.2	0	fire	33	02	19	0.0	05.4	23.2	120.9	3.7	5
80	20	8	2012	35	68	19	0.0	88.3	25.9	130.6	8.8	3
4.7	16.8		fire									
81	21	8	2012	36	58	19	0.0	88.6	29.6	141.1	9.2	3
8.8	18.4		fire									
82	22	8	2012	36	55	18	0.0	89.1	33.5	151.3	9.9	4
3.1	20.4	_	fire									
83	23	8	2012	36	53	16	0.0	89.5	37.6	161.5	10.4	4
7.5 84	22.3 24	8	fire 2012	34	64	14	0.0	88.9	40.5	171.3	9	_
0.9	20.9	0	fire	34	04	14	0.0	00.9	40.3	1/1.5	2	ر
85	25	8	2012	35	60	15	0.0	88.9	43.9	181.3	8.2	5
4.7	20.3		fire									_
86	26	8	2012	31	78	18	0.0	85.8	45.6	190.6	4.7	5
7.1	13.7		fire									
87	27	8	2012	33	82	21	0.0	84.9	47	200.2	4.4	5
9.3	13.2	_	fire	- ·				00 -	F0 -	242 -		_
88	28	8	2012	34	64	16	0.0	89.4	50.2	210.4	7.3	6
2.9	19.9		fire									

89	29	8 2012	35	48	18	0.0	90.1	54.2	220.4	12.5	6
7.4 90	30.2 30	fire 8 2012	35	70	17	0.8	72.7	25.2	180.4	1.7	3
7.4	4.2	not fire	20	00	24	16.0	F2 F	0.7	0.7	0.6	
91 8.3	31 0.3	8 2012 not fire	28	80	21	16.8	52.5	8.7	8.7	0.6	
92	1	9 2012	25	76	17	7.2	46.0	1.3	7.5	0.2	
1.8 93	0.1 2	not fire 9 2012	22	86	1 5	10 1	20 E	0.7	7	0	
1.1	0	not fire	22	80	15	10.1	30.5	0.7	7	Ø	
94	3	9 2012	25	78	15	3.8	42.6	1.2	7.5	0.1	
1.7 95	0 4	not fire 9 2012	29	73	17	0.1	68.4	1.9	15.7	1.4	
2.9	0.5	not fire	23	, ,	1,	0.1	00.4	1.5	13.7	1.7	
96	5	9 2012	29	75	16	0.0	80.8	3.4	24	2.8	
5.1 97	1.7 6	fire	20	74	10	0 1	75 0	2.6	22.2	2 1	
5.6	0.9	9 2012 not fire	29	74	19	0.1	75.8	3.6	32.2	2.1	
98	7	9 2012	31	71	17	0.3	69.6	3.2	30.1	1.5	
5.1	0.6	not fire									
99 3	8 0.4	9 2012 not fire	30	73	17	0.9	62.0	2.6	8.4	1.1	
100	9	9 2012	30	77	15	1.0	56.1	2.1	8.4	0.7	
2.6	0.2	not fire									
101 2.7	10 0.3	9 2012 not fire	33	73	12	1.8	59.9	2.2	8.9	0.7	
102	11	9 2012	30	77	21	1.8	58.5	1.9	8.4	1.1	
2.4	0.3	not fire									
103	12	9 2012	29	88	13	0.0	71.0	2.6	16.6	1.2	
3.7 104	0.5 13	not fire 9 2012	25	86	21	4.6	40.9	1.3	7.5	0.1	
1.8	0	not fire	23	00	21	4.0	40.5	1.5	,.5	0.1	
105	14	9 2012	22	76	26	8.3	47.4	1.1	7	0.4	
1.6 106	0.1 15	not fire 9 2012	24	ດາ	15	0.4	44.9	0.0	7 2	0.2	
1.4	12	not fire	24	82	15	0.4	44.9	0.9	7.3	0.2	
107	16	9 2012	30	65	14	0.0	78.1	3.2	15.7	1.9	
4.2	0.8	not fire									
108 7.7	17 5.9	9 2012 fire	31	52	14	0.0	87.7	6.4	24.3	6.2	
109	18	9 2012	32	49	11	0.0	89.4	9.8	33.1	6.8	1
1.3	7.7	fire									
110	19	9 2012	29	57	14	0.0	89.3	12.5	41.3	7.8	1
4.2 111	9.7 20	fire 9 2012	28	84	18	0.0	83.8	13.5	49.3	4.5	
16	6.3	fire									
112	21	9 2012	31	55	11	0.0	87.8	16.5	57.9	5.4	1
9.2 113	8.3 22	fire 9 2012	31	50	19	0.6	77.8	10.6	41.4	2.4	1
2.9	2.8	not fire	31	30	19	0.0	//.0	10.0	41.4	2.4	_
114	23	9 2012	32	54	11	0.5	73.7	7.9	30.4	1.2	
9.6	0.7	not fire	20	6.5	4.0	0.6	60.3		45.0	4 5	
115 5.8	24 0.7	9 2012 not fire	29	65	19	0.6	68.3	5.5	15.2	1.5	
116	25	9 2012	26	81	21	5.8	48.6	3	7.7	0.4	
	0.1	not fire									
117 6.2	26 1.7	9 2012 not fire	31	54	11	0.0	82.0	6	16.3	2.5	
118	27	9 2012	31	66	11	0.0	85.7	8.3	24.9	4	
	4.1	fire									

119	28	9	2012	32	2 47	14	0.7	77.5	7.1	8.8	1.8	
6.8	0.9		fire	20	. 00	1.0	1 0	47.4	2.0	7 7	0.2	
120 3	29 0.1	9 not fi	2012	26	80	16	1.8	47.4	2.9	7.7	0.3	
121	30	9	2012	25	78	14	1 4	45.0	1.9	7.5	0.2	
2.4	0.1		fire	2.5	, , , ,	1-7	1.4	43.0	1.0	7.5	0.2	
122	day	month		Temperature	RH	Ws	Rain	FFMC	DMC	DC	ISI	
BUI	FWI		lasses	•								
123	1	6	2012	32	71	12	0.7	57.1	2.5	8.2	0.6	
2.8	0.2	not	fire									
124	2	6	2012	36	73	13	4.0	55.7	2.7	7.8	0.6	
2.9	0.2		fire									
125	3	6	2012	29	80	14	2.0	48.7	2.2	7.6	0.3	
2.6	0.1		fire	2.0		4.4	0.0	70.4	<b>.</b> .	45.4	2 2	
126	4	6		36	64	14	0.0	79.4	5.2	15.4	2.2	
5.6 127	1 5	6	fire 2012	32	2 60	14	0.2	77.1	6	17.6	1.8	
6.5	0.9		fire	32	2 00	14	0.2	//.1	0	17.0	1.0	
128	6		2012	35	5 54	11	0.1	83.7	8.4	26.3	3.1	
9.3	3.1	-	fire									
129	7	6	2012	35	44	17	0.2	85.6	9.9	28.9	5.4	1
0.7	6		fire									
130	8	6	2012	28	51	17	1.3	71.4	7.7	7.4	1.5	
7.3	0.8	not	fire									
131	9	6	2012	27	7 59	18	0.1	78.1	8.5	14.7	2.4	
8.3	1.9		fire									
132	10	6	2012	36	41	15	0.0	89.4	13.3	22.5	8.4	1
3.1	10		fire	2.1	42	21	0.0	00.6	10.0	20 5	12.4	
133 18	11 16.7		2012 fire	31	42	21	0.0	90.6	18.2	30.5	13.4	
134	12		2012	27	7 58	17	0.0	88.9	21.3	37.8	8.7	2
1.2	12.9	Ü	fire	2,	50		0.0	00.5	21.5	37.0	0.7	_
135	13	6	2012	36	52	15	2.0	72.3	11.4	7.8	1.4	1
0.9	0.9	not	fire									
136	14	6	2012	27	7 79	16	0.7	53.4	6.4	7.3	0.5	
6.1	0.3		fire									
137	15		2012	28	90	15	0.0	66.8	7.2	14.7	1.2	
7.1	0.6		fire									
138	16		2012	29	87	15	0.4	47.4	4.2	8	0.2	
4.1 139	0.1 17		fire 2012	31	69	17	4 7	62.2	2 0	8	1.1	
3.8	0.4		fire	21	. 69	1/	4.7	02.2	3.9	0	1.1	
140	18		2012	33	62	10	8.7	65.5	4.6	8.3	0.9	
4.4	0.4		fire		-							
141	19	6		32	2 67	14	4.5	64.6	4.4	8.2	1	
4.2	0.4	not	fire									
142	20	6	2012	31	. 72	14	0.2	60.2	3.8	8	0.8	
3.7			fire									
143	21	6	2012	32	2 55	14	0.0	86.2	8.3	18.4	5	
8.2	4.9	_	fire									
144	22		2012	33	3 46	14	1.1	78.3	8.1	8.3	1.9	
7.7	1.2 23		fire	3.3	) [0	16	0.0	7/1 2	7	0 7	1 6	
145 6.7	0.8	6 not	2012 fire	33	59	16	۵.8	14.2	7	8.3	1.6	
146	24		2012	35	68	16	аа	85.3	10	17	4.9	
9.9	5.3	U	fire	5.	, 00	10	0.0	د ، د ن	10	1/	7.9	
147	25	6	2012	34	· 70	16	0.0	86.0	12.8	25.6	5.4	1
2.7	6.7	-	fire									-
148	26	6	2012	36	62	16	0.0	87.8	16.5	34.5	7	1
6.4	9.5		fire									

149	27	6	2012	36	55	15	0.0	89.1	20.9	43.3	8	2
0.8 150	12 28	6	fire 2012	37	37	13	0.0	92.5	27.2	52.4	11.7	2
7.1	18.4		fire									
151	29	6	2012	37	36	13	0.6	86.2	17.9	36.7	4.8	1
7.8	7.2		fire									
152	30	6	2012	34	42	15	1.7	79.7	12	8.5	2.2	1
1.5	2.2	not f										
153	1	7		28	58	18	2.2	63.7	3.2	8.5	1.2	
3.3	0.5		fire	2.2	40	1.0	0.0	07.6	7.0	17.0	6.0	
154	2 6.4	/	2012 fire	33	48	16	0.0	87.6	7.9	17.8	6.8	
7.8 155	3	7	2012	34	56	17	0 1	84.7	9.7	27.3	4.7	1
0.3	5.2	,	fire	24	50	17	0.1	04.7	9.7	27.5	4.7	_
156	4	7	2012	34	58	18	0.0	88.0	13.6	36.8	8	1
4.1	9.9		fire									
157	5	7	2012	34	45	18	0.0	90.5	18.7	46.4	11.3	1
8.7	15		fire									
158	6	7	2012	35	42	15	0.3	84.7	15.5	45.1	4.3	1
6.7	6.3		fire									
159	7	7		38	43	13	0.5	85.0	13	35.4	4.1	1
3.7	5.2	_	fire									
160	8	7		35	47	18	6.0	80.8	9.8	9.7	3.1	
9.4 161	3 9	7	fire 2012	36	43	15	1.9	82.3	0.4	9.9	3.2	
	3.1		ire	30	43	13	1.9	02.3	9.4	9.9	3.2	
162	10	7		34	51	16	3.8	77.5	8	9.5	2	
7.7	1.3		fire		-		3.0				_	
163	11	7		34	56	15	2.9	74.8	7.1	9.5	1.6	
6.8	0.8	not	fire									
164	12	7	2012	36	44	13	0.0	90.1	12.6	19.4	8.3	1
2.5	9.6		fire									
165	13	7	2012	39	45	13	0.6	85.2	11.3	10.4	4.2	1
0.9	4.7	_	fire	2.4		4=			4.0	0.4.4	10.0	_
166		/	2012	34	45	17	0.0	90.5	18	24.1	10.9	1
7.7 167	14.1 16	7	fire 2012	31	83	17	0 0	84.5	19.4	33.1	4.7	1
9.2	7.3	,	fire	J1	05	17	0.0	04.5	17.4	33.1	4.7	_
168	17	7	2012	32	81	17	0.0	84.6	21.1	42.3	4.7	2
0.9	7.7		fire									
169	18	7	2012	33	68	15	0.0	86.1	23.9	51.6	5.2	2
3.9	9.1		fire									
170	19	7	2012	34	58	16	0.0	88.1	27.8	61.1	7.3	2
7.7	13	_	fire									_
171	20	7	2012	36	50	16	0.0	89.9	32.7	71	9.5	3
2.6	17.3	7	fire	26	20	10	0.0	02.0	20 6	90 6	10 5	2
172 9.5	21 30	7	2012 fire	36	29	18	0.0	93.9	39.6	80.6	18.5	5
173	22	7	2012	32	48	18	0.0	91.5	44.2	90.1	13.2	
	25.4		fire	-						2012		
174	23	7		31	71	17	0.0	87.3	46.6	99	6.9	4
6.5	16.3		fire									
175	24	7	2012	33	63	17	1.1	72.8	20.9	56.6	1.6	2
1.7	2.5		fire									
176	25	7		39	64	9	1.2	73.8	11.7	15.9	1.1	1
1.4	0.7		fire	2.5	го	4.0	0 0	70.3	10.0	10 7	4 -	4
177 0.7	26 1		2012 fire	35	58	10	0.2	78.3	10.8	19.7	1.6	Т
0.7 178	1 27	7		29	87	18	аа	80.0	11.8	28.3	2.8	1
1.8	3.2		fire		3,	10	0.0	55.0	0	_0.5	2.0	-
-			_									

179	28	7	2012	33	57	16	0.0	87.5	15.7	37.6	6.7	1
5.7 180	9 29	7	fire 2012	34	59	16	0.0	88.1	19.5	47.2	7.4	1
9.5	10.9	,	fire	54	22	10	0.0	00.1	10.5	47.2	7.4	_
181	30	7	2012	36	56	16	0.0	88.9	23.8	57.1	8.2	2
3.8	13.2		fire									
182	31	7	2012	37	55	15	0.0	89.3	28.3	67.2	8.3	2
8.3	14.5	0	fire	20	F-2	1.4	0.0	70.2	4.4	10 5	2	
183 4.4	1 0.8	8 not	2012 fire	38	52	14	0.0	78.3	4.4	10.5	2	
184	2	8	2012	40	34	14	0.0	93.3	10.8	21.4	13.8	1
0.6	13.5		fire									_
185	3	8	2012	39	33	17	0.0	93.7	17.1	32.1	17.2	1
6.9	19.5		fire									
186	4	8	2012	38	35	15	0.0	93.8	23	42.7	15.7	2
2.9	20.9		fire	2.4	4.0	47	0.4	00.0	22.6	F2 F	40	2
187	5 12 6	8	2012 fire	34	42	17	0.1	88.3	23.6	52.5	19	2
3.5 188	12.6 6	8	2012	30	54	14	3.1	70.5	11	9.1	1.3	1
0.5	0.8		fire	50	54	14	J.1	70.5	11	٥.1	1.5	_
189	7	8	2012	34	63	13	2.9	69.7	7.2	9.8	1.2	
6.9	0.6	not	fire									
190	8	8	2012	37	56	11	0.0	87.4	11.2	20.2	5.2	
11	5.9		fire									
191	9	8		39	43	12	0.0	91.7	16.5	30.9	9.6	1
6.4	12.7	0	fire	20	20	1 -	0.2	00 2	15 0	25.4	0 1	1
192 5.8	10 10.7	8	2012 fire	39	39	15	0.2	89.3	15.8	35.4	8.2	1
193	11	8	2012	40	31	15	0.0	94.2	22.5	46.3	16.6	2
2.4	21.6	Ü	fire	.0	7_		0.0	J		10.5	20.0	_
194	12	8	2012	39	21	17	0.4	93.0	18.4	41.5	15.5	1
8.4	18.8		fire									
195	13	8	2012	35	34	16	0.2	88.3	16.9	45.1	7.5	1
7.5	10.5		fire									_
196		8	2012	37	40	13	0.0	91.9	22.3	55.5	10.8	2
2.3 197	15.7 15	8	fire 2012	35	46	13	0.3	83.9	16.9	54.2	3.5	
19	5.5		fire	22	40	13	0.5	05.5	10.9	34.2	٠.٥	
198	16	8	2012	40	41	10	0.1	92.0	22.6	65.1	9.5	2
4.2	14.8		fire									
199	17	8	2012	42	24	9	0.0	96.0	30.3	76.4	15.7	3
0.4	24		fire									
200	18	8	2012	37	37	14	0.0	94.3	35.9	86.8	16	3
5.9 201	26.3 19	8	fire 2012	35	66	15	0 1	82.7	32.7	96.8	3.3	2
5.5	7.7	0	fire	55	66	13	0.1	02.7	32.7	90.0	3.3	3
202	20	8	2012	36	81	15	0.0	83.7	34.4	107	3.8	3
8.1	9		fire									
203	21	8	2012	36	71	15	0.0	86.0	36.9	117.1	5.1	4
1.3	12.2		fire									
204	22	8	2012	37	53	14	0.0	89.5	41.1	127.5	8	4
5.5	18.1		fire	2.6	4.2	4.5	0.0	04.2	4.5.4	427.7	44 5	_
205	23 24.5	8	2012 fire	36	43	16	0.0	91.2	46.1	137.7	11.5	5
206	24.3	8	2012	35	38	15	0.0	92.1	51.3	147.7	12.2	5
4.9	26.9	U	fire	22	50		0.0	~ <b>~ .</b> .	J±•J	<u> </u>		,
207	25	8	2012	34	40	18	0.0	92.1	56.3	157.5	14.3	5
9.5	31.1		fire									
208	26		2012	33	37	16	0.0	92.2	61.3	167.2	13.1	
64	30.3		fire									

209 68	27 26.1	8 2012 fire	36	5 5	4 14	0.0	91.0	65.9	177.3	10	
210	28	8 2012	3!	5 5	6 14	0.4	79.2	37	166	2.1	3
0.6 211	6.1 29	not fire 8 2012	35	5 5	3 17	7 0.5	80.2	20.7	149.2	2.7	3
0.6 212	5.9 30	fire 8 2012	34	1 4	9 1	0.0	89.2	24.8	159.1	8.1	3
5.7 213	16 31	fire 8 2012	36	<b>3</b> 5	9 19	0.0	89.1	27.8	168.2	9.8	3
9.3	19.4 1	fire 9 2012	29				37.9	0.9		0.1	
1.4	0	not fire									
215 4	2 0.8	9 2012 not fire	28	3 6	7 19	0.0	75.4	2.9	16.3	2	
216 6	3 2.5	9 2012 fire	28	3 7	5 16	0.0	82.2	4.4	24.3	3.3	
217 6	4	9 2012 not fire	36	6 6	6 1	0.2	73.5	4.1	26.6	1.5	
218	5	9 2012	36	9 5	8 12	2 4.1	66.1	4	8.4	1	
3.9 219	0.4 6	not fire 9 2012	34	1 7	1 14	1 6.5	64.5	3.3	9.1	1	
3.5 220	0.4 7	not fire 9 2012	31	1 6	2 1!	o.0	83.3	5.8	17.7	3.8	
6.4 221	3.2 8	fire 9 2012	36				82.5		26.1	3	
8.1	2.7	fire									
222 10	9 3.7	9 2012 fire	36	8 6	0 1	0.0	83.1	7.9	34.5	3.5	
223 4.6	10 0.3	9 2012 not fire	29	9 7	4 1	5 1.1	59.5	4.7	8.2	0.8	
224 6.6	11 1.2	9 2012 not fire	36	7	3 14	0.0	79.2	6.5	16.6	2.1	
225	12	9 2012	31	1 7	2 14	0.0	84.2	8.3	25.2	3.8	
9.1 226		fire 9 2012	29	9 4	9 19	0.0	88.6	11.5	33.4	9.1	1
2.4 227	10.3 14	fire 9 2012	28	3 8	1 1	0.0	84.6	12.6	41.5	4.3	1
4.3 228	5.7 15	fire 9 2012	32	2 5	1 13	. aa	88.7	16	50.2	6.9	1
7.8	9.8	fire									
229 2.4	16 19.3	9 2012 fire	33	3 2	6 13		93.9			14.2	
230	17 17.5	9 2012 fire	34	1 4	4 12	2 0.0	92.5	25.2	63.3	11.2	2
231 8.2	18 15.4	9 2012 fire	36	5 3	3 13	0.1	90.6	25.8	77.8	9	2
232	19	9 2012	29	9 4	1 8	0.1	83.9	24.9	86	2.7	2
8.9 233	5.6 20	fire 9 2012	34	4 5	8 13	8 0.2	79.5	18.7	88	2.1	2
4.4 234	3.8 21	not fire 9 2012	3!	5 3	4 17	7 0.0	92.2	23.6	97.3	13.8	2
9.4 235	21.6 22	fire 9 2012	33				88.9	26.1		7.1	
2.4	13.7	fire									,
236 36	23 15.2	9 2012 fire	35				89.0			7.5	
237 1.9	24 0.4	9 2012 not fire	26	5 4	9 (	2.0	61.3	11.9	28.1	0.6	1
238 4.1	25 3	9 2012 not fire	28	3 7	0 1	0.0	79.9	13.8	36.1	2.4	1
	,	HOC ITIE									

```
239
                  2012
                                       65
                                            14
                                                   0.0 85.4
                                                                 16
                                                                      44.5
                                                                             4.5 1
      26
                                  30
6.9
      6.5
                  fire
240
                                                       41.1
      27
              9
                  2012
                                  28
                                       87
                                            15
                                                   4.4
                                                               6.5
                                                                         8
                                                                             0.1
6.2
        0
             not fire
                                                       45.9
241
      28
                  2012
                                  27
                                       87
                                            29
                                                   0.5
                                                               3.5
                                                                       7.9
                                                                             0.4
             not fire
3.4
      0.2
242
      29
              9
                  2012
                                  24
                                       54
                                            18
                                                   0.1 79.7
                                                               4.3
                                                                      15.2
                                                                             1.7
5.1
      0.7
             not fire
                                            15
                                                   0.2 67.3
                                                                             1.2
243
      30
                  2012
                                  24
                                       64
                                                               3.8
                                                                      16.5
              9
4.8
      0.5
            not fire
```

Podział danych ze względu na region 1 - Bejaia Region 2 - Sidi-Bel Abbes

```
In [ ]: dane.loc[:122, 'Region'] = 1
    dane.loc[122:, 'Region'] = 2
    dane[['Region']] = dane[['Region']].astype('int64')
```

Wyświetlenie pierwszych 5 dancyh wirszy dla Regionu Bejaia

In [ ]: dane.head()

Out[ ]:		day	month	year	Temperature	RH	Ws	Rain	FFMC	DMC	DC	ISI	BUI	FWI	Classes
	0	1	6	2012	29	57	18	0.0	65.7	3.4	7.6	1.3	3.4	0.5	not fire
	1	2	6	2012	29	61	13	1.3	64.4	4.1	7.6	1	3.9	0.4	not fire
	2	3	6	2012	26	82	22	13.1	47.1	2.5	7.1	0.3	2.7	0.1	not fire
	3	4	6	2012	25	89	13	2.5	28.6	1.3	6.9	0	1.7	0	not fire
	4	5	6	2012	27	77	16	0.0	64.8	3	14.2	1.2	3.9	0.5	not fire

Wyświetlenie pierwszych 5 dancyh wirszy dla Regionu Sidi-Bel Abbes

```
In [ ]:
          dane.tail()
                                                          Ws
                                                               Rain
                                                                     FFMC DMC
                                                                                     DC
                                                                                          ISI
                                                                                                BUI
                                                                                                     FWI
Out[]:
                day
                      month
                               year
                                      Temperature
                                                    RH
                                                                                                           Class
           239
                  26
                               2012
                                                30
                                                     65
                                                           14
                                                                 0.0
                                                                       85.4
                                                                                16
                                                                                    44.5
                                                                                          4.5
                                                                                               16.9
                                                                                                      6.5
           240
                  27
                            9
                               2012
                                                          15
                                                                 4.4
                                                                       41.1
                                                                               6.5
                                                                                       8
                                                                                          0.1
                                                                                                6.2
                                                                                                        0
                                                                                                            not f
                                                28
                                                     87
           241
                  28
                               2012
                                                27
                                                     87
                                                          29
                                                                 0.5
                                                                       45.9
                                                                               3.5
                                                                                     7.9
                                                                                          0.4
                                                                                                3.4
                                                                                                      0.2
                                                                                                            not f
                                                                                          1.7
           242
                  29
                              2012
                                                           18
                                                                 0.1
                                                                       79.7
                                                                                                5.1
                                                24
                                                     54
                                                                               4.3
                                                                                    15.2
                                                                                                      0.7
                                                                                                            not f
           243
                  30
                              2012
                                                24
                                                     64
                                                           15
                                                                 0.2
                                                                       67.3
                                                                               3.8
                                                                                    16.5
                                                                                          1.2
                                                                                                4.8
                                                                                                      0.5
                                                                                                            not f
                                                                                                              >
```

In [ ]: print(dane.to\_string())

DUT	day	month	-	Temperature	RH	Ws	Rain	FFMC	DMC	DC	ISI	
BUI	FWI	_	Classe	•								
0	1	6	2012	29	57	18	0.0	65.7	3.4	7.6	1.3	
3.4	0.5		fire	1								
1	2	6	2012	29	61	13	1.3	64.4	4.1	7.6	1	
3.9	0.4		fire	1								
2	3	6	2012	26	82	22	13.1	47.1	2.5	7.1	0.3	
2.7	0.1	not	fire	1								
3	4	6	2012	25	89	13	2.5	28.6	1.3	6.9	0	
1.7	0	not	fire	1								
4	5	6	2012	27	77	16	0.0	64.8	3	14.2	1.2	
3.9	0.5	not	fire	1								
5	6	6	2012	31	67	14	0.0	82.6	5.8	22.2	3.1	
7	2.5	f:	ire	1								
6	7	6	2012	33	54	13	0.0	88.2	9.9	30.5	6.4	1
0.9	7.2		fire	1								
7	8	6	2012	30	73	15	0.0	86.6	12.1	38.3	5.6	1
3.5	7.1		fire	1								
8	9	6	2012	25	88	13	0.2	52.9	7.9	38.8	0.4	1
0.5	0.3	not	fire	1								
9	10	6	2012	28	79	12	0.0	73.2	9.5	46.3	1.3	1
2.6	0.9	not	fire	1								
10	11	6	2012	31	65	14	0.0	84.5	12.5	54.3	4	1
5.8	5.6		fire	1								
11	12	6	2012	26	81	19	0.0	84.0	13.8	61.4	4.8	1
7.7	7.1		fire	1								
12	13	6	2012	27	84	21	1.2	50.0	6.7	17	0.5	
6.7	0.2	not	fire	1								
13	14	6	2012	30	78	20	0.5	59.0	4.6	7.8	1	
4.4	0.4		fire	1							_	
14	15	6	2012	28	80	17	3.1	49.4	3	7.4	0.4	
14 3	15 0.1	6 not fi	2012 ire	28 1	80	17	3.1	49.4	3	7.4	0.4	
3	0.1	not f	ire	1								
3 15	0.1 16	not f	ire 2012	1 29	80 89	17 13	3.1 0.7	49.4	3 1.7	7.4 7.6	0.4	
3 15 2.2	0.1 16 0	not for formal formal formal for formal formal formal formal for formal	ire 2012 fire	1 29 1	89	13	0.7	36.1	1.7	7.6	0	
3 15 2.2 16	0.1 16 0 17	not for formal f	ire 2012 fire 2012	1 29 1 30			0.7		1.7			
3 15 2.2 16 1.6	0.1 16 0 17 0	not fi 6 not 6 not	ire 2012 fire 2012 fire	1 29 1 30 1	89 89	13 16	0.7 0.6	36.1 37.3	1.7	7.6 7.8	0 0	
3 15 2.2 16 1.6 17	0.1 16 0 17 0 18	not for formal f	ire 2012 fire 2012 fire 2012	1 29 1 30 1 31	89	13	0.7	36.1	1.7	7.6	0	
3 15 2.2 16 1.6 17 2.4	0.1 16 0 17 0 18 0.2	not for a format f	ire 2012 fire 2012 fire 2012 fire 2012	1 29 1 30 1 31	89 89 78	13 16 14	<ul><li>0.7</li><li>0.6</li><li>0.3</li></ul>	36.1 37.3 56.9	1.7 1.1 1.9	7.6 7.8 8	0 0.7	
3 15 2.2 16 1.6 17 2.4	0.1 16 0 17 0 18 0.2 19	not for formal f	ire 2012 fire 2012 fire 2012 fire 2012	1 29 1 30 1 31 1	89 89	13 16	0.7 0.6	36.1 37.3	1.7	7.6 7.8	0 0	
3 15 2.2 16 1.6 17 2.4 18 5.3	0.1 16 0 17 0 18 0.2 19	not for a format f	ire 2012 fire 2012 fire 2012 fire 2012 fire 2012 fire	1 29 1 30 1 31 1 31	89 89 78 55	13 16 14 16	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li></ul>	36.1 37.3 56.9 79.9	1.7 1.1 1.9 4.5	7.6 7.8 8 16	<ul><li>Ø</li><li>Ø.7</li><li>2.5</li></ul>	
3 15 2.2 16 1.6 17 2.4 18 5.3	0.1 16 0 17 0 18 0.2 19 1.4 20	not for a format f	ire 2012 fire 2012 fire 2012 fire 2012 fire 2012	1 29 1 30 1 31 1 31	89 89 78	13 16 14	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li></ul>	36.1 37.3 56.9	1.7 1.1 1.9	7.6 7.8 8	0 0.7	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4	not for a formal	ire 2012 fire 2012 fire 2012 fire 2012 fire 2012 fire 2012 fire	1 29 1 30 1 31 1 31 1 30	89 89 78 55	13 16 14 16 16	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li></ul>	36.1 37.3 56.9 79.9 59.8	1.7 1.1 1.9 4.5 3.4	7.6 7.8 8 16 27.1	0 0.7 2.5 0.9	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21	not for a format f	ire 2012 fire 2012 fire 2012 fire 2012 fire 2012 fire 2012	1 29 1 30 1 31 1 31 1 30 1 30	89 89 78 55	13 16 14 16	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li></ul>	36.1 37.3 56.9 79.9	1.7 1.1 1.9 4.5	7.6 7.8 8 16	<ul><li>Ø</li><li>Ø.7</li><li>2.5</li></ul>	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2	not for a format f	ire 2012 fire	1 29 1 30 1 31 1 31 1 30 1 30	89 89 78 55 80 78	13 16 14 16 16 14	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0	1.7 1.1 1.9 4.5 3.4 6.3	7.6 7.8 8 16 27.1 31.6	0 0.7 2.5 0.9 2.6	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 22	not for a format f	ire 2012 fire 2012 fire 2012 fire 2012 fire 2012 fire 2012 fire 2012	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 30	89 89 78 55	13 16 14 16 16	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li></ul>	36.1 37.3 56.9 79.9 59.8	1.7 1.1 1.9 4.5 3.4	7.6 7.8 8 16 27.1	0 0.7 2.5 0.9	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 22 2.3	not for a format f	ire 2012 fire	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 31 1 1	<ul><li>89</li><li>89</li><li>78</li><li>55</li><li>80</li><li>78</li><li>67</li></ul>	13 16 14 16 16 14 17	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li><li>0.1</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1	1.7 1.1 1.9 4.5 3.4 6.3	7.6 7.8 8 16 27.1 31.6 39.5	0 0.7 2.5 0.9 2.6 2.4	1
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 22 2.3 23	not for a format f	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 31 1 32	89 89 78 55 80 78	13 16 14 16 16 14	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0	1.7 1.1 1.9 4.5 3.4 6.3	7.6 7.8 8 16 27.1 31.6	0 0.7 2.5 0.9 2.6 2.4	1
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 22 2.3 23 3.8	not for a format f	ire 2012 fire	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 31 1 32	89 78 55 80 78 67	13 16 14 16 16 14 17 18	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li><li>0.1</li><li>0.1</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4	1.7 1.1 1.9 4.5 3.4 6.3 7	7.6 7.8 8 16 27.1 31.6 39.5 47.7	0 0.7 2.5 0.9 2.6 2.4 3.3	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 22 2.3 23 3.8 24	not for a format f	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 30 1 31 1 32 1 32	<ul><li>89</li><li>89</li><li>78</li><li>55</li><li>80</li><li>78</li><li>67</li></ul>	13 16 14 16 16 14 17	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li><li>0.1</li><li>0.1</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1	1.7 1.1 1.9 4.5 3.4 6.3	7.6 7.8 8 16 27.1 31.6 39.5	0 0.7 2.5 0.9 2.6 2.4 3.3	1
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5	not for a format f	ire 2012 fire	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 30 1 31 1 32 1 32 1	89 89 78 55 80 78 67 62 66	13 16 14 16 16 14 17 18	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li><li>0.1</li><li>0.1</li><li>0.0</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6	1
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25	not for a format f	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 30 1 31 1 30 1 31 1 32 1 32 1 32	89 78 55 80 78 67	13 16 14 16 16 14 17 18	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li><li>0.1</li><li>0.1</li><li>0.0</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2	7.6 7.8 8 16 27.1 31.6 39.5 47.7	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6	
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25 8.4	not for a format f	ire 2012 fire	1 29 1 30 1 31 1 30 1 30 1 31 1 30 1 30 1 31 1 32 1 32 1 32 1 31	89 78 55 80 78 67 62 66 64	13 16 14 16 16 14 17 18 17	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7	1
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 22 2.3 23 3.8 24 7.5 25 8.4 26	not for a format f	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 30 1 30	89 89 78 55 80 78 67 62 66	13 16 14 16 16 14 17 18	<ul><li>0.7</li><li>0.6</li><li>0.3</li><li>0.1</li><li>0.4</li><li>0.0</li><li>0.1</li><li>0.1</li><li>0.0</li></ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6	1
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25 1.6	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25 8.4 26 10.6	not for a format f	ire 2012 fire	1 29 1 30 1 31 1 30 1 30 1 30 1 30 1 30 1 31 1 32 1 32 1 31 1 31 1 1	89 78 55 80 78 67 62 66 64 64	13 16 14 16 16 14 17 18 17 15	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7 86.8	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2 14.2 17.8	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8 71.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7 6.7	1 2
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25 1.6 26	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25 8.4 26 10.6 27	not for a format f	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 31 1 30 1 30 1 31 1 32 1 32 1 31 1 31 1 31	89 78 55 80 78 67 62 66 64	13 16 14 16 16 14 17 18 17	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7	1 2
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25 1.6 26 5.8	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25 8.4 26 10.6 27 15	not f:     6     not     6     not     6     not     6     not     6     not     6     6     6     6	ire 2012 fire	1 29 1 30 1 31 1 30 1 32 1 32 1 31 1 31 1 34 1	89 78 55 80 78 67 62 66 64 64 53	13 16 14 16 16 14 17 18 17 15 18	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7 86.8	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2 14.2 17.8 21.6	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8 71.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7 6.7	1 1 2 2
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25 1.6 26 5.8 27	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25 8.4 26 10.6 27 15 28	not for a format f	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 32 1 31 1 1 34 1 32	89 78 55 80 78 67 62 66 64 64	13 16 14 16 16 14 17 18 17 15	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7 86.8	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2 14.2 17.8	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8 71.8	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7 6.7	1 1 2 2
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25 1.6 26 5.8 27 9.7	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 3.8 24 7.5 25 8.4 26 10.6 27 15 28 13.9	not f:     6     not     6     not     6     not     6     not     6     not     6     6     6     6     6	ire 2012 fire	1 29 1 30 1 31 1 31 1 30 1 30 1 30 1 31 1 32 1 32 1 31 1 31 1 31 1 31 1 31	89 89 78 55 80 78 67 62 66 64 64 53 55	13 16 14 16 16 14 17 18 17 15 18 18	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7 86.8 89.0	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2 14.2 17.8 21.6 25.5	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8 71.8 80.3 88.5	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7 6.7 9.2 7.6	1 1 2 2
3 15 2.2 16 1.6 17 2.4 18 5.3 19 5.1 20 8.4 21 9.7 22 1.5 23 4.9 24 8.3 25 1.6 26 5.8 27	0.1 16 0 17 0 18 0.2 19 1.4 20 0.4 21 2.2 2.3 23 3.8 24 7.5 25 8.4 26 10.6 27 15 28 13.9 29	not f:     6     not     6     not     6     not     6     not     6     not     6     6     6     6     6     6     6	ire 2012 fire 2012	1 29 1 30 1 31 1 30 1 32 1 31 1 1 34 1 32	89 78 55 80 78 67 62 66 64 64 53	13 16 14 16 16 14 17 18 17 15 18	<ul> <li>0.7</li> <li>0.6</li> <li>0.3</li> <li>0.1</li> <li>0.4</li> <li>0.0</li> <li>0.1</li> <li>0.1</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> <li>0.0</li> </ul>	36.1 37.3 56.9 79.9 59.8 81.0 79.1 81.4 85.9 86.7 86.8	1.7 1.1 1.9 4.5 3.4 6.3 7 8.2 11.2 14.2 17.8 21.6 25.5	7.6 7.8 8 16 27.1 31.6 39.5 47.7 55.8 63.8 71.8 80.3 88.5	0 0.7 2.5 0.9 2.6 2.4 3.3 5.6 5.7 6.7	1 1 2 2

29	30	6	2012	33	50	14	0.0	88.7	22.9	92.8	7.2	2
8.3 30	12.9 1	7	fire 2012	1 29	68	19	1.0	59.9	2.5	8.6	1.1	
2.9	0.4	not	fire	1								
31 2.8	2	7 not	2012 fire	27 1	75	19	1.2	55.7	2.4	8.3	0.8	
32	0.3 3	7	2012	32	76	20	0.7	63.1	2.6	9.2	1.3	
3	0.5	not f	ire	1								
33	4	7	2012	33	78	17	0.0	80.1	4.6	18.5	2.7	
5.7	1.7		fire	1								
34	5	7	2012	33	66	14	0.0	85.9	7.6	27.9	4.8	
9.1 35	4.9 6	7	fire 2012	1 32	62	1.1	0.0	87.0	10.9	27	5.6	1
2.5	6.8	/	fire	1	63	14	0.0	07.0	10.9	37	5.0	1
36	7	7	2012	35	64	18	0.2	80.0	9.7	40.4	2.8	1
2.1	3.2		fire	1	•		0.1		- • •		_,,	_
37	8	7		33	68	19	0.0	85.6	12.5	49.8	6	1
5.4	8		fire	1								
38	9	7	2012	32	68	14	1.4	66.6	7.7	9.2	1.1	
7.4	0.6		fire	1								
39	10	7	2012	33	69	13	0.7	66.6	6	9.3	1.1	
5.8	0.5		fire	1	7.0	4.4	0.0	04.4	0.4	40.7	2.6	
40	11	7	2012	33	76	14	0.0	81.1	8.1	18.7	2.6	
8.1 41	2.2 12	7	fire 2012	1 31	75	13	0.1	75.1	7.9	27.7	1.5	
9.2	0.9		fire	1	75	13	0.1	/ 3 . 1	7.9	27.7	1.5	
42	13	7	2012	34	81	15	0.0	81.8	9.7	37.2	3	1
1.7	3.4		fire	1								
43	14	7	2012	34	61	13	0.6	73.9	7.8	22.9	1.4	
8.4	0.8	not	fire	1								
44	15	7	2012	30	80	19	0.4	60.7	5.2	17	1.1	
5.9	0.5		fire	1								
45	16	7		28	76	21	0.0	72.6	7	25.5	0.7	
8.3 46	0.4 17		fire 2012	1 29	70	14	0.0	റാറ	0.4	24 1	2 2	1
1.1	3.6	/	fire	1	70	14	0.0	02.0	9.4	34.1	3.2	1
47	18	7	2012	31	68	14	0.0	85.4	12.1	43.1	4.6	1
4.2	6	•	fire	1						.51=		_
48	19	7	2012	35	59	17	0.0	88.1	12	52.8	7.7	1
8.2	10.9		fire	1								
49	20	7	2012	33	65	15	0.1	81.4	12.3	62.1	2.8	1
6.5	4		fire	1								
50	21	7	2012	33	70	17	0.0	85.4	18.5	71.5	5.2	2
2.4	8.8	7	fire	1	70	10	0 1	72 4	16.4	70.0	1 0	2
51 1.7	22 2.8	7 not	2012 fire	28 1	79	18	0.1	73.4	16.4	79.9	1.8	2
52	23	7	2012	27	66	22	0 4	68.2	10.5	71.3	1.8	1
5.4	2.1		fire	1	00		0.4	00.2	10.5	, 1.3	1.0	_
53	24		2012	28	78	16	0.1	70.0	9.6	79.7	1.4	1
4.7	1.3		fire	1								
54	25	7	2012	31	65	18	0.0	84.3	12.5	88.7	4.8	1
8.5	7.3		fire	1								
55	26	7	2012	36	53	19	0.0	89.2	17.1	98.6	10	2
3.9	15.3	_	fire	1								_
56	27	7	2012	36	48	13	0.0	90.3	22.2	108.5	8.7	2
9.4 57	15.3 28	7	fire 2012	1 33	76	15	aa	86.5	2/1 //	117.8	5.6	3
2.1	11.3	,	fire	1	70	13	٥.٥	00.5	44.4	11/.0	٥. د	ر
58	29	7	2012	32	73	15	0.0	86.6	26.7	127	5.6	
35	11.9		fire	1	-	-					- · <del>-</del>	

59	30	7 2012	31	79	15	0.0	85.4	28.5	136	4.7	3
7.4	10.7	fire	1	<i>C</i> 4	17	0.0	07.2	21 0	145 7	<i>c</i> 0	4
60 1.2	31 15.7	7 2012 fire	35 1	64	17	0.0	87.2	31.9	145.7	6.8	4
61	1	8 2012	36	45	14	0.0	78.8	4.8	10.2	2	
4.7	0.9	not fire	1				, , , ,			_	
62	2	8 2012	35	55	12	0.4	78.0	5.8	10	1.7	
5.5	0.8	not fire	1								
63	3	8 2012	35	63	14	0.3	76.6	5.7	10	1.7	
5.5	0.8	not fire	1	60	4.2	0.0	05.0	0 0	10.0	4	
64 8.2	4 3.9	8 2012 fire	34 1	69	13	0.0	85.0	8.2	19.8	4	
65	5.9	8 2012	34	65	13	0.0	86.8	11.1	29.7	5.2	1
1.5	6.1	fire	1	03	13	0.0	00.0		23.7	3.2	-
66	6	8 2012	32	75	14	0.0	86.4	13	39.1	5.2	1
4.2	6.8	fire	1								
67	7	8 2012	32	69	16	0.0	86.5	15.5	48.6	5.5	1
7.2	8	fire	1								
68	8	8 2012	32	60	18	0.3	77.1	11.3	47	2.2	1
4.1	2.6	not fire 8 2012	1	Ε0	17	0.0	07 4	1/ 0	F-7	<i>c</i> 0	1
69 7.9	9 9.9	8 2012 fire	35 1	59	17	0.0	87.4	14.8	57	6.9	1
70	10	8 2012	35	55	14	0.0	88.9	18.6	67	7.4	2
1.9	11.6	fire	1								
71	11	8 2012	35	63	13	0.0	88.9	21.7	77	7.1	2
5.5	12.1	fire	1								
72	12	8 2012	35	51	13	0.3	81.3	15.6	75.1	2.5	2
0.7	4.2	not fire	1		4-			4.0	05.4	- 0	_
73 4.4	13 10.2	8 2012 fire	35 1	63	15	0.0	87.0	19	85.1	5.9	2
74	14	8 2012	33	66	14	0.0	87.0	21.7	94.7	5.7	2
7.2	10.6	fire	1	00		0.0	0,10	,	2117	3.,	_
75	15	8 2012	36	55	13	0.3	82.4	15.6	92.5	3.7	
22	6.3	fire	1								
76	16	8 2012	36	61	18	0.3	80.2	11.7	90.4	2.8	1
7.6	4.2	fire	1								_
77 2. 0	17	8 2012 fina	37	52	18	0.0	89.3	16	100.7	9.7	2
2.9 78	14.6 18	fire 8 2012	1 36	54	18	9 9	89.4	20	110.9	9.7	2
7.5	16.1	fire	1	54	10	0.0	07.4	20	110.5	J.1	_
79	19	8 2012	35	62	19	0.0	89.4	23.2	120.9	9.7	3
1.3	17.2	fire	1								
80	20	8 2012	35	68	19	0.0	88.3	25.9	130.6	8.8	3
4.7	16.8	fire	1								_
81	21	8 2012	36	58	19	0.0	88.6	29.6	141.1	9.2	3
8.8 82	18.4 22	fire 8 2012	1 36	55	18	0.0	89.1	33.5	151.3	9.9	1
3.1	20.4	fire	1	))	10	0.0	09.1	22.2	131.3	9.9	4
83	23	8 2012	36	53	16	0.0	89.5	37.6	161.5	10.4	4
7.5	22.3	fire	1								
84	24	8 2012	34	64	14	0.0	88.9	40.5	171.3	9	5
0.9	20.9	fire	1								
85	25	8 2012	35	60	15	0.0	88.9	43.9	181.3	8.2	5
4.7	20.3	fire	1	70	10	0.0	0E 0	1E 6	100 6	4 7	_
86 7.1	26 13.7	8 2012 fire	31 1	78	18	0.0	03.8	45.6	190.6	4.7	Э
87	27	8 2012	33	82	21	0.0	84.9	47	200.2	4.4	5
9.3	13.2	fire	1	•	•			-	<del>-</del>		
88	28	8 2012	34	64	16	0.0	89.4	50.2	210.4	7.3	6
2.9	19.9	fire	1								

89	29	8 2012	35	48	18	0.0	90.1	54.2	220.4	12.5	6
7.4 90	30.2 30	fire 8 2012	1 35	70	17	0.8	72.7	25.2	180.4	1.7	3
7.4	4.2	not fire	1								
91	31	8 2012	28	80	21	16.8	52.5	8.7	8.7	0.6	
8.3 92	0.3 1	not fire 9 2012	1 25	76	17	7.2	46.0	1.3	7.5	0.2	
1.8	0.1	not fire	1								
93	2	9 2012	22	86	15	10.1	30.5	0.7	7	0	
1.1 94	0	not fire 9 2012	1	70	15	2 0	42.6	1 2	7 -	Ω 1	
1.7	3 0	not fire	25 1	78	15	3.8	42.0	1.2	7.5	0.1	
95	4	9 2012	29	73	17	0.1	68.4	1.9	15.7	1.4	
2.9	0.5	not fire	1								
96	5	9 2012	29	75	16	0.0	80.8	3.4	24	2.8	
5.1 97	1.7 6	fire 9 2012	1 29	74	19	0.1	75.8	3.6	32.2	2.1	
5.6	0.9	not fire	1	74	19	0.1	73.0	3.0	32.2	2.1	
98	7	9 2012	31	71	17	0.3	69.6	3.2	30.1	1.5	
5.1	0.6	not fire	1								
99	8	9 2012	30	73	17	0.9	62.0	2.6	8.4	1.1	
3 100	0.4 9	not fire 9 2012	1 30	77	15	1.0	56.1	2.1	8.4	0.7	
2.6	0.2	not fire	1			_,,	5012			•••	
101	10	9 2012	33	73	12	1.8	59.9	2.2	8.9	0.7	
2.7	0.3	not fire	1		0.4	4.0		4.0			
102 2.4	11 0.3	9 2012 not fire	30 1	77	21	1.8	58.5	1.9	8.4	1.1	
103	12	9 2012	29	88	13	0.0	71.0	2.6	16.6	1.2	
3.7	0.5	not fire	1								
104	13	9 2012	25	86	21	4.6	40.9	1.3	7.5	0.1	
1.8	0	not fire	1	76	26	0.2	47.4	1 1	7	0.4	
105 1.6	14 0.1	9 2012 not fire	22 1	76	26	8.3	47.4	1.1	7	0.4	
106		9 2012		82	15	0.4	44.9	0.9	7.3	0.2	
1.4	0	not fire	1								
107	16	9 2012	30	65	14	0.0	78.1	3.2	15.7	1.9	
4.2 108	0.8 17	not fire 9 2012	1 31	52	14	0.0	87.7	6.4	24.3	6.2	
7.7	5.9	fire	1	52	14	0.0	07.7	0.4	24.3	0.2	
109	18	9 2012	32	49	11	0.0	89.4	9.8	33.1	6.8	1
1.3	7.7	fire	1								
110 4.2	19 9.7	9 2012 fire	29 1	57	14	0.0	89.3	12.5	41.3	7.8	1
111	20	9 2012	28	84	18	0.0	83.8	13.5	49.3	4.5	
16	6.3	fire	1	0.	10	0.0	03.0	13.3	13.3		
112	21	9 2012	31	55	11	0.0	87.8	16.5	57.9	5.4	1
9.2	8.3	fire	1	<b>50</b>	10	0.6	77.0	10.6	44.4	2.4	_
113 2.9	22 2.8	9 2012 not fire	31 1	50	19	0.6	77.8	10.6	41.4	2.4	1
114	23	9 2012	32	54	11	0.5	73.7	7.9	30.4	1.2	
9.6	0.7	not fire	1								
115	24	9 2012	29	65	19	0.6	68.3	5.5	15.2	1.5	
5.8	0.7	not fire	1	01	21	г о	40.6	2	7 7	0.4	
116 3	25 0.1	9 2012 not fire	26 1	81	21	5.8	48.6	3	7.7	0.4	
117	26	9 2012	31	54	11	0.0	82.0	6	16.3	2.5	
6.2	1.7	not fire	1								
118	27	9 2012	31	66	11	0.0	85.7	8.3	24.9	4	
9	4.1	fire	1								

119	28	9	2012	32	47	14	0.7	77.5	7.1	8.8	1.8	
6.8	0.9	not	fire	1								
120	29	9	2012	26	80	16	1.8	47.4	2.9	7.7	0.3	
3	0.1	not f		1	70	1.4	1 1	45.0	1.0	7.5	0 0	
121	30 0.1	9	2012 fire	25	78	14	1.4	45.0	1.9	7.5	0.2	
2.4 122	day	month		1 Temperature	RH	Ws	Rain	FFMC	DMC	DC	ISI	
BUI	FWI		lasses		IXII	WS	Nain	TTMC	DITIC	DC	131	
123	1	6		32	71	12	0.7	57.1	2.5	8.2	0.6	
2.8	0.2		fire	2								
124	2	6	2012	30	73	13	4.0	55.7	2.7	7.8	0.6	
2.9	0.2		fire	2								
125	3	6	2012	29	80	14	2.0	48.7	2.2	7.6	0.3	
2.6	0.1		fire	2	<i>C</i> 1	1.1	0.0	79.4	г э	15 4	2 2	
126 5.6	4 1	6 not	2012 fire	30 2	64	14	0.0	79.4	5.2	15.4	2.2	
127	5	6	2012	32	60	14	0.2	77.1	6	17.6	1.8	
6.5	0.9		fire	2						_, ,	_,,	
128	6	6	2012	35	54	11	0.1	83.7	8.4	26.3	3.1	
9.3	3.1		fire	2								
129	7	6	2012	35	44	17	0.2	85.6	9.9	28.9	5.4	1
0.7	6	_	fire	2	F-1	47	1.2	71 4		7.4	4 5	
130 7.3	8 0.8	6 not	2012 fire	28 2	51	17	1.3	71.4	7.7	7.4	1.5	
131	9	6	2012	27	59	18	0.1	78.1	8.5	14.7	2.4	
8.3	1.9		fire	2				, , , ,				
132	10	6	2012	30	41	15	0.0	89.4	13.3	22.5	8.4	1
3.1	10		fire	2								
133	11		2012	31	42	21	0.0	90.6	18.2	30.5	13.4	
18	16.7		fire	2 27	го	17	0.0	00 0	21 2	27.0	0 7	2
134 1.2	12 12.9	6	2012 fire	27	58	17	0.0	88.9	21.3	37.8	8.7	2
135	13	6	2012	30	52	15	2.0	72.3	11.4	7.8	1.4	1
0.9	0.9		fire	2								
136	14	6	2012	27	79	16	0.7	53.4	6.4	7.3	0.5	
6.1	0.3			2								
137	15		2012	28	90	15	0.0	66.8	7.2	14.7	1.2	
7.1 138	0.6 16		fire 2012	2 29	87	15	0.4	17 1	4.2	8	0.2	
4.1	0.1		fire	29	07	13	0.4	47.4	4.2	0	0.2	
139	17		2012	31	69	17	4.7	62.2	3.9	8	1.1	
3.8	0.4		fire	2								
140	18		2012	33	62	10	8.7	65.5	4.6	8.3	0.9	
4.4	0.4		fire	2								
141	19		2012	32	67	14	4.5	64.6	4.4	8.2	1	
4.2 142	0.4 20		fire 2012	2 31	72	14	0.2	60.2	2 0	8	0.8	
3.7	0.3		fire	2	12	14	0.2	00.2	5.6	8	0.0	
143	21		2012	32	55	14	0.0	86.2	8.3	18.4	5	
8.2	4.9		fire	2								
144	22	6	2012	33	46	14	1.1	78.3	8.1	8.3	1.9	
7.7	1.2		fire	2								
145	23		2012	33	59	16	0.8	74.2	7	8.3	1.6	
6.7	0.8		fire	2	<i>c</i> 0	1.0	0.0	05.3	10	17	4.0	
146 9.9	24 5.3		2012 fire	35 2	68	16	0.0	85.3	10	17	4.9	
147	25		2012	34	70	16	0.0	86.0	12.8	25.6	5.4	1
2.7	6.7		fire	2	-	-				- • •		-
148	26		2012	36	62	16	0.0	87.8	16.5	34.5	7	1
6.4	9.5		fire	2								

149	27	6	2012	36	55	15	0.0	89.1	20.9	43.3	8	2
0.8 150	12 28	6	fire 2012	2 37	37	13	0.0	92.5	27.2	52.4	11.7	2
7.1	18.4		fire	2								
151	29	6	2012	37	36	13	0.6	86.2	17.9	36.7	4.8	1
7.8 152	7.2 30	6	fire 2012	2 34	42	15	1.7	79.7	12	8.5	2.2	1
1.5	2.2	not f		2								
153	1	7		28	58	18	2.2	63.7	3.2	8.5	1.2	
3.3	0.5		fire	2								
154	2	7		33	48	16	0.0	87.6	7.9	17.8	6.8	
7.8	6.4		fire	2								
155	3	7	2012	34	56	17	0.1	84.7	9.7	27.3	4.7	1
0.3	5.2		fire	2								
156	4	7	2012	34	58	18	0.0	88.0	13.6	36.8	8	1
4.1	9.9		fire	2								
157	5	7	2012	34	45	18	0.0	90.5	18.7	46.4	11.3	1
8.7	15		fire	2								
158	6	7	2012	35	42	15	0.3	84.7	15.5	45.1	4.3	1
6.7	6.3		fire	2								
159	7	7	2012	38	43	13	0.5	85.0	13	35.4	4.1	1
3.7	5.2		fire	2								
160	8	7	2012	35	47	18	6.0	80.8	9.8	9.7	3.1	
9.4	3		fire	2								
161	9	7	2012	36	43	15	1.9	82.3	9.4	9.9	3.2	
9	3.1	f	ire	2								
162	10	7	2012	34	51	16	3.8	77.5	8	9.5	2	
7.7	1.3	not	fire	2								
163	11	7	2012	34	56	15	2.9	74.8	7.1	9.5	1.6	
6.8	0.8	not	fire	2								
164	12	7	2012	36	44	13	0.0	90.1	12.6	19.4	8.3	1
2.5	9.6		fire	2								
165	13	7		39	45	13	0.6	85.2	11.3	10.4	4.2	1
0.9	4.7		fire	2								
166		7	2012	34	45	17	0.0	90.5	18	24.1	10.9	1
7.7	14.1		fire	2								
167	16	7		31	83	17	0.0	84.5	19.4	33.1	4.7	1
9.2	7.3		fire	2								
168	17	7	2012	32	81	17	0.0	84.6	21.1	42.3	4.7	2
0.9	7.7		fire	2								
169	18	7	2012	33	68	15	0.0	86.1	23.9	51.6	5.2	2
3.9	9.1	_	fire	2								_
170	19	7	2012	34	58	16	0.0	88.1	27.8	61.1	7.3	2
7.7	13	_	fire	2					20 =			_
171	20	7	2012	36	50	16	0.0	89.9	32.7	71	9.5	3
2.6	17.3	7	fire	2	20	10	0.0	02.0	20.6	00.6	10 5	_
172	21	7		36	29	18	0.0	93.9	39.6	80.6	18.5	3
9.5	30	7	fire	2	40	10	0.0	01 5	44.2	00 1	12.2	
173	22		2012	32	48	18	0.0	91.5	44.2	90.1	13.2	
	25.4		fire 2012	2	71	17	0 0	07 2	16 6	00	6.9	1
174 6.5	23 16.3	7	fire	31 2	71	17	0.0	87.3	46.6	99	6.9	4
175	24	7		33	63	17	1.1	72.8	20.9	56.6	1.6	2
1.7	2.5		fire	2	05	17	1.1	72.0	20.5	50.0	1.0	_
176	25	7		39	64	9	1 2	73.8	11.7	15.9	1.1	1
1.4	0.7		fire	2	0-+	٦	1.4	, , , 0	±±•/	±J•9	1.1	_
177	26		2012	35	58	10	a 2	78.3	10.8	19.7	1.6	1
0.7	1		fire	2	50	10	0.2	, 0 . 5	10.0	±2.1	1.0	-
178	27	7		29	87	18	0.0	80.0	11.8	28.3	2.8	1
1.8	3.2		fire	2		-	- / -			- • •		-
			_	=								

179	28	7	2012	33	57	16	0.0	87.5	15.7	37.6	6.7	1
5.7 180	9 29	7	fire 2012	2 34	59	16	0.0	88.1	19.5	47.2	7.4	1
9.5	10.9		fire	2								
181 3.8	30 13.2	7	2012 fire	36 2	56	16	0.0	88.9	23.8	57.1	8.2	2
182	31	7	2012	37	55	15	0.0	89.3	28.3	67.2	8.3	2
8.3	14.5		fire	2								
183	1	8	2012	38	52	14	0.0	78.3	4.4	10.5	2	
4.4	0.8	not	fire	2								
184	2	8	2012	40	34	14	0.0	93.3	10.8	21.4	13.8	1
0.6	13.5		fire	2								
185	3	8	2012	39	33	17	0.0	93.7	17.1	32.1	17.2	1
6.9	19.5		fire	2								
186	4	8	2012	38	35	15	0.0	93.8	23	42.7	15.7	2
2.9	20.9		fire	2								
187	5	8	2012	34	42	17	0.1	88.3	23.6	52.5	19	2
3.5	12.6		fire	2								
188	6	8	2012	30	54	14	3.1	70.5	11	9.1	1.3	1
0.5	0.8	not	fire	2								
189	7	8	2012	34	63	13	2.9	69.7	7.2	9.8	1.2	
6.9	0.6	not	fire	2								
190	8	8	2012	37	56	11	0.0	87.4	11.2	20.2	5.2	
11	5.9		fire	2								
191	9	8	2012	39	43	12	0.0	91.7	16.5	30.9	9.6	1
6.4	12.7		fire	2								
192	10	8	2012	39	39	15	0.2	89.3	15.8	35.4	8.2	1
5.8	10.7		fire	2								
193	11	8	2012	40	31	15	0.0	94.2	22.5	46.3	16.6	2
2.4	21.6		fire	2								
194	12	8	2012	39	21	17	0.4	93.0	18.4	41.5	15.5	1
8.4	18.8		fire	2								
195	13	8	2012	35	34	16	0.2	88.3	16.9	45.1	7.5	1
7.5	10.5		fire	2								
196	14	8	2012	37	40	13	0.0	91.9	22.3	55.5	10.8	2
2.3	15.7		fire	2								
197	15	8	2012	35	46	13	0.3	83.9	16.9	54.2	3.5	
19	5.5		fire	2								
198	16	8	2012	40	41	10	0.1	92.0	22.6	65.1	9.5	2
4.2	14.8		fire	2								
199	17	8	2012	42	24	9	0.0	96.0	30.3	76.4	15.7	3
0.4	24		fire	2								
200	18	8	2012	37	37	14	0.0	94.3	35.9	86.8	16	3
5.9	26.3		fire	2								
201	19	8	2012	35	66	15	0.1	82.7	32.7	96.8	3.3	3
5.5	7.7		fire	2								
202	20	8	2012	36	81	15	0.0	83.7	34.4	107	3.8	3
8.1	9	_	fire	2								
203	21	8	2012	36	71	15	0.0	86.0	36.9	117.1	5.1	4
1.3	12.2	_	fire	2							_	
204	22	8	2012	37	53	14	0.0	89.5	41.1	127.5	8	4
5.5	18.1	_	fire	2								_
205	23	8	2012	36	43	16	0.0	91.2	46.1	137.7	11.5	5
0.2	24.5		fire	2	2.0	4-		00.4	=4 3	44	40.0	_
206	24	8	2012	35	38	15	0.0	92.1	51.3	147.7	12.2	5
4.9	26.9	_	fire	2	4.0	4.0	0 0	02.4	F.C. 3	157 5	14.3	_
207	25	8	2012	34	40	18	0.0	92.1	56.3	157.5	14.3	5
9.5	31.1		fire	2	27	10	0.0	02.2	C1 3	167.3	12 4	
208	26	8		33	37	16	0.0	92.2	01.3	167.2	13.1	
64	30.3		fire	2								

209	27	8 2012	36	54	14	0.0	91.0	65.9	177.3	10	
68 210	26.1 28	fire 8 2012	2 35	56	14	0.4	79.2	37	166	2.1	3
0.6	6.1	not fire	2								
211	29	8 2012	35	53	17	0.5	80.2	20.7	149.2	2.7	3
0.6	5.9	fire	2								
212	30	8 2012	34	49	15	0.0	89.2	24.8	159.1	8.1	3
5.7	16	fire	2								
213	31	8 2012	30	59	19	0.0	89.1	27.8	168.2	9.8	3
9.3	19.4	fire	2								
214	1	9 2012	29	86	16	0.0	37.9	0.9	8.2	0.1	
1.4	0	not fire	2							_	
215	2	9 2012	28	67	19	0.0	75.4	2.9	16.3	2	
4	0.8	not fire	2	75	1.0	0.0	ດາາ	4 4	24.2	2 2	
216	3 2.5	9 2012	28	75	16	0.0	82.2	4.4	24.3	3.3	
6 217	4	fire 9 2012	2 30	66	15	0.2	73.5	4.1	26.6	1.5	
6	0.7	not fire	2	66	15	0.2	/3.3	4.1	20.0	1.5	
218	5	9 2012	30	58	12	1 1	66.1	4	8.4	1	
3.9	0.4	not fire	2	50	12	4.1	00.1	4	0.4	_	
219	6	9 2012	34	71	14	6.5	64.5	3.3	9.1	1	
3.5	0.4	not fire	2	, _		0.5	04.3	3.3	J. I	_	
220	7	9 2012	31	62	15	0.0	83.3	5.8	17.7	3.8	
6.4	3.2	fire	2								
221	8	9 2012	30	88	14	0.0	82.5	6.6	26.1	3	
8.1	2.7	fire	2								
222	9	9 2012	30	80	15	0.0	83.1	7.9	34.5	3.5	
10	3.7	fire	2								
223	10	9 2012	29	74	15	1.1	59.5	4.7	8.2	0.8	
4.6	0.3	not fire	2								
224	11	9 2012	30	73	14	0.0	79.2	6.5	16.6	2.1	
6.6	1.2	not fire	2								
225	12	9 2012	31	72	14	0.0	84.2	8.3	25.2	3.8	
9.1	3.9	fire	2								
226		9 2012	29	49	19	0.0	88.6	11.5	33.4	9.1	1
2.4	10.3	fire	2								
227	14	9 2012	28	81	15	0.0	84.6	12.6	41.5	4.3	1
4.3	5.7	fire	2	F-1	12	0.0	00.7	1.0	FO 3	6.0	4
228	15	9 2012	32	51	13	0.0	88.7	16	50.2	6.9	Т
7.8 229	9.8 16	fire 9 2012	2 33	26	13	0.0	02.0	21 2	59.2	14.2	2
2.4	19.3	fire	2	20	13	0.0	93.9	21.2	39.2	14.2	2
230	17	9 2012	34	44	12	a a	92 5	25.2	63.3	11.2	2
6.2	17.5	fire	2		12	0.0	22.3	23.2	05.5	11.2	_
231	18	9 2012	36	33	13	0.1	90.6	25.8	77.8	9	2
8.2	15.4	fire	2	33		0.1	30.0	23.0	,,,,		_
232	19	9 2012	_ 29	41	8	0.1	83.9	24.9	86	2.7	2
8.9	5.6	fire	2								
233	20	9 2012	34	58	13	0.2	79.5	18.7	88	2.1	2
4.4	3.8	not fire	2								
234	21	9 2012	35	34	17	0.0	92.2	23.6	97.3	13.8	2
9.4	21.6	fire	2								
235	22	9 2012	33	64	13	0.0	88.9	26.1	106.3	7.1	3
2.4	13.7	fire	2								
236	23	9 2012	35	56	14	0.0	89.0	29.4	115.6	7.5	
36	15.2	fire	2								
237	24	9 2012	26	49	6	2.0	61.3	11.9	28.1	0.6	1
1.9	0.4	not fire	2								
238	25	9 2012	28	70	15	0.0	79.9	13.8	36.1	2.4	1
4.1	3	not fire	2								

239	26	9 2012	30	65	14	0.0	85.4	16	44.5	4.5	1
6.9	6.5	fire	2								
240	27	9 2012	28	87	15	4.4	41.1	6.5	8	0.1	
6.2	0	not fire	2								
241	28	9 2012	27	87	29	0.5	45.9	3.5	7.9	0.4	
3.4	0.2	not fire	2								
242	29	9 2012	24	54	18	0.1	79.7	4.3	15.2	1.7	
5.1	0.7	not fire	2								
243	30	9 2012	24	64	15	0.2	67.3	3.8	16.5	1.2	
4.8	0.5	not fire	2								

Usuniecie lini 122 ze wzgledu na duplikacje nazw atrybutów

```
In [ ]: dane = dane.drop(122).reset_index(drop=True)
```

Ponowne sprawdzanie danych po operacji

```
In [ ]: print(dane.to_string())
```

	day month year		RH	Ws	Rain	FFMC	DMC	DC	ISI	BUI	
FWI 0	Classes 1 6 2012	29	57	18	0.0	65.7	3.4	7.6	1.3	3.4	
0.5	not fire 2 6 2012	1 29	61	13	1.3	64.4	4.1	7.6	1	3.9	
0.4 2 0.1	not fire 3 6 2012 not fire	1 26 1	82	22	13.1	47.1	2.5	7.1	0.3	2.7	
3	4 6 2012 not fire	25 1	89	13	2.5	28.6	1.3	6.9	0	1.7	
4 0.5	5 6 2012 not fire	27 1	77	16	0.0	64.8	3	14.2	1.2	3.9	
5 2.5	6 6 2012 fire	31 1	67	14	0.0	82.6	5.8	22.2	3.1	7	
6 7.2	7 6 2012 fire	33 1	54	13	0.0	88.2	9.9	30.5	6.4	10.9	
7 7.1	8 6 2012 fire	30 1	73	15	0.0	86.6	12.1	38.3	5.6	13.5	
8 0.3	9 6 2012 not fire	25 1	88	13	0.2	52.9	7.9	38.8	0.4	10.5	
9 0.9	10 6 2012 not fire	28 1	79	12	0.0	73.2	9.5	46.3	1.3	12.6	
10 5.6	11 6 2012 fire	31 1	65	14	0.0	84.5	12.5	54.3	4	15.8	
11 7.1	12 6 2012 fire	26 1	81	19		84.0	13.8	61.4	4.8	17.7	
12 0.2 13	13 6 2012 not fire 14 6 2012	27 1 30	84 78	21	0.5	50.0	6.7	17 7.8	0.5	6.7 4.4	
0.4 14	not fire 15 6 2012	1 28	80	20 17	3.1	49.4	4.6 3	7.8	0.4	3	
0.1 15	not fire 16 6 2012	1	89	13	0.7		1.7	7.4	0.4	2.2	
0 16	not fire 17 6 2012	1						7.8			
0 17	not fire 18 6 2012	1	78					8		2.4	
0.2 18	not fire 19 6 2012		55	16	0.1	79.9	4.5	16	2.5	5.3	
1.4 19	20 6 2012	1 30	80	16	0.4	59.8	3.4	27.1	0.9	5.1	
0.4 20	not fire 21 6 2012		78	14	0.0	81.0	6.3	31.6	2.6	8.4	
2.2	fire 22 6 2012		67	17	0.1	79.1	7	39.5	2.4	9.7	
2.3 22 3.8	not fire 23 6 2012 fire	1 32 1	62	18	0.1	81.4	8.2	47.7	3.3	11.5	
23 7.5	24 6 2012 fire		66	17	0.0	85.9	11.2	55.8	5.6	14.9	
24 8.4	25 6 2012 fire	31	64	15	0.0	86.7	14.2	63.8	5.7	18.3	
25 0.6	26 6 2012 fire	31	64	18	0.0	86.8	17.8	71.8	6.7	21.6	1
26 15	27 6 2012 fire	34	53	18	0.0	89.0	21.6	80.3	9.2	25.8	
27 3.9	28 6 2012 fire	32 1	55	14	0.0	89.1	25.5	88.5	7.6	29.7	1
28 3.9	29 6 2012 not fire	32 1	47	13	0.3	79.9	18.4	84.4	2.2	23.8	

29	30 6 2012		33	50	14	0.0	88.7	22.9	92.8	7.2	28.3	1
2.9 30	fire 1 7 2012	1	29	68	19	1.0	59.9	2.5	8.6	1.1	2.9	
0.4	not fire	1		00		1.0	33.3	2.5	0.0		,	
31	2 7 2012		27	75	19	1.2	55.7	2.4	8.3	0.8	2.8	
0.3	not fire	1									_	
32	3 7 2012	1	32	76	20	0.7	63.1	2.6	9.2	1.3	3	
0.5 33	not fire 4 7 2012	1	33	78	17	a a	80 1	4.6	18 5	2.7	5 7	
1.7	not fire	1	33	, 0	-/	0.0	00.1	4.0	10.5	2.,,	3.7	
34	5 7 2012		33	66	14	0.0	85.9	7.6	27.9	4.8	9.1	
4.9	fire	1										
35 6.8	6 7 2012 fire	1	32	63	14	0.0	87.0	10.9	37	5.6	12.5	
36		1	35	64	18	0.2	80.0	9.7	40.4	2.8	12.1	
3.2	not fire			•				- • •		_,,		
37	8 7 2012		33	68	19	0.0	85.6	12.5	49.8	6	15.4	
8	fire											
38 0.6	9 7 2012 not fire	1	32	68	14	1.4	66.6	7.7	9.2	1.1	7.4	
39	10 7 2012	1	33	69	13	0.7	66.6	6	9.3	1.1	5.8	
0.5	not fire	1										
40	11 7 2012		33	76	14	0.0	81.1	8.1	18.7	2.6	8.1	
2.2	not fire	1	24		4.5		<b></b> 4	- 0		4 -		
41 0.9	12 7 2012 not fire	1	31	75	13	0.1	75.1	7.9	27.7	1.5	9.2	
42	13 7 2012	1	34	81	15	0.0	81.8	9.7	37.2	3	11.7	
	not fire	1		-			0_10	- • •	37.12		,	
43	14 7 2012		34	61	13	0.6	73.9	7.8	22.9	1.4	8.4	
	not fire	1										
44 0.5	15 7 2012 not fire	1	30	80	19	0.4	60.7	5.2	17	1.1	5.9	
45		1	28	76	21	0.0	72.6	7	25.5	0.7	8.3	
	not fire			, 0		0.0	, 2.0	,	23.3	0.7	0.5	
46	17 7 2012		29	70	14	0.0	82.8	9.4	34.1	3.2	11.1	
3.6	fire	1	24				05.4	40.4	42.4		44.0	
47 6	18 7 2012 fire	1	31	68	14	0.0	85.4	12.1	43.1	4.6	14.2	
48	19 7 2012	1	35	59	17	0.0	88.1	12	52.8	7.7	18.2	1
0.9	fire	1										
49	20 7 2012		33	65	15	0.1	81.4	12.3	62.1	2.8	16.5	
4	fire	1	22	70	17	0.0	05 4	10 г	71 5	F 2	22.4	
50 8.8	21 7 2012 fire	1	33	70	17	0.0	85.4	18.5	71.5	5.2	22.4	
51	22 7 2012	-	28	79	18	0.1	73.4	16.4	79.9	1.8	21.7	
2.8	not fire	1										
52	23 7 2012		27	66	22	0.4	68.2	10.5	71.3	1.8	15.4	
2.1	not fire 24 7 2012	1	20	70	1.0	0 1	70.0	0.6	70.7	1 1	14 7	
53 1.3	24 7 2012 not fire	1	28	78	16	0.1	70.0	9.6	79.7	1.4	14.7	
54	25 7 2012	-	31	65	18	0.0	84.3	12.5	88.7	4.8	18.5	
7.3	fire	1										
55	26 7 2012		36	53	19	0.0	89.2	17.1	98.6	10	23.9	1
5.3	fire	1	26	/I O	10	0 0	00.2	<b>ງ</b> ງ ງ	100 5	0 7	20. 4	1
56 5.3	27 7 2012 fire	1	30	48	13	0.0	30.3	22.2	108.5	0./	23.4	Т
57	28 7 2012	_	33	76	15	0.0	86.5	24.4	117.8	5.6	32.1	1
1.3	fire	1										
58	29 7 2012	_	32	73	15	0.0	86.6	26.7	127	5.6	35	1
1.9	fire	1										

59	30	7 2012		31	79	15	0.0	85.4	28.5	136	4.7	37.4	1
0.7 60	31	fire 7 2012	1	35	64	17	0.0	87 2	31 9	145.7	6.8	<b>4</b> 1 2	1
5.7	31	fire	1	55	04	1,	0.0	07.2	31.3	143.7	0.0	71.2	_
61	1	8 2012	_	36	45	14	0.0	78.8	4.8	10.2	2	4.7	
0.9 62	not 2	fire 8 2012	1	35	55	12	a 1	78.0	5.8	10	1.7	5.5	
0.8		fire	1	55	55	12	0.4	70.0	3.0	10	1.7	٥.5	
63	3	8 2012		35	63	14	0.3	76.6	5.7	10	1.7	5.5	
0.8 64		fire 8 2012	1	34	69	13	0.0	85.0	8.2	19.8	4	8.2	
3.9	4	fire	1	24	09	13	0.0	85.0	0.2	19.0	4	0.2	
65	5	8 2012		34	65	13	0.0	86.8	11.1	29.7	5.2	11.5	
6.1	_	fire	1	22	75	1.1	0.0	06.4	12	20 1	гэ	14 2	
66 6.8	6	8 2012 fire	1	32	75	14	0.0	80.4	13	39.1	5.2	14.2	
67	7	8 2012	_	32	69	16	0.0	86.5	15.5	48.6	5.5	17.2	
8		ire	1	2.0		4.0		4	44.5				
68 2.6	8 not	8 2012 : fire	1	32	60	18	0.3	77.1	11.3	47	2.2	14.1	
69	9	8 2012	_	35	59	17	0.0	87.4	14.8	57	6.9	17.9	
9.9		fire	1										
70 1.6	10	8 2012 fire	1	35	55	14	0.0	88.9	18.6	67	7.4	21.9	1
71	11	8 2012	_	35	63	13	0.0	88.9	21.7	77	7.1	25.5	1
2.1		fire	1										
72 4.2	12	8 2012 : fire	1	35	51	13	0.3	81.3	15.6	75.1	2.5	20.7	
73		8 2012	1	35	63	15	0.0	87.0	19	85.1	5.9	24.4	1
0.2		fire	1										
74 0.6	14	8 2012 fire	1	33	66	14	0.0	87.0	21.7	94.7	5.7	27.2	1
75	15	8 2012	1	36	55	13	0.3	82.4	15.6	92.5	3.7	22	
6.3		fire	1										
76	16	8 2012		36	61	18	0.3	80.2	11.7	90.4	2.8	17.6	
4.2 77	17	fire 8 2012	1	37	52	18	0.0	89.3	16	100.7	9.7	22.9	1
4.6		fire	1										
78	18	8 2012	4	36	54	18	0.0	89.4	20	110.9	9.7	27.5	1
6.1 79	19	fire 8 2012	1	35	62	19	0.0	89.4	23.2	120.9	9.7	31.3	1
7.2		fire	1		-							3_73	_
80	20	8 2012	_	35	68	19	0.0	88.3	25.9	130.6	8.8	34.7	1
6.8 81	21	fire 8 2012	1	36	58	19	0.0	88.6	29 6	141.1	9.2	38.8	1
8.4		fire	1	30	50		0.0	00.0	23.0	1-11-1	J. Z	30.0	_
82	22	8 2012		36	55	18	0.0	89.1	33.5	151.3	9.9	43.1	2
0.4 83	23	fire 8 2012	1	36	53	16	0.0	80 5	37.6	161.5	10 /	<i>1</i> 7 5	2
2.3	23	fire	1	50	55	10	0.0	05.5	37.0	101.5	10.4	47.5	_
84	24	8 2012		34	64	14	0.0	88.9	40.5	171.3	9	50.9	2
0.9 85	25	fire 8 2012	1	35	60	15	0.0	99 Q	43.9	181.3	8.2	54.7	2
0.3	23	fire	1	33	00	13	0.0	00.5	43.3	101.3	0.2	34.7	_
86	26	8 2012		31	78	18	0.0	85.8	45.6	190.6	4.7	57.1	1
3.7 87	27	fire 8 2012	1	33	82	21	0.0	84.9	47	200.2	4.4	59.3	1
3.2	<i>21</i>	8 2012 fire	1	23	oΖ	<b>41</b>	0.0	04.7	4/	200.2	4.4	J7.5	1
88	28	8 2012		34	64	16	0.0	89.4	50.2	210.4	7.3	62.9	1
9.9		fire	1										

89	29 8 2012		35	48	18	0.0	90.1	54.2	220.4	12.5	67.4	
0.2 90	fire 30 8 2012	1	35	70	17	0.8	72.7	25.2	180.4	1.7	37.4	
4.2 91	not fire 31 8 2012	1	28	80	21	16 Q	52 5	Q 7	8.7	0.6	8.3	
0.3		1	20	80	21	10.0	32.3	0.7	0.7	0.0	0.3	
	1 9 2012		25	76	17	7.2	46.0	1.3	7.5	0.2	1.8	
0.1 93	not fire 2 9 2012	1	22	86	15	10.1	30 5	a 7	7	0	1.1	
0	not fire	1	22	00	13	10.1	50.5	0.7	,	Ū		
94	3 9 2012	4	25	78	15	3.8	42.6	1.2	7.5	0.1	1.7	
0 95	not fire 4 9 2012	1	29	73	17	0.1	68.4	1.9	15.7	1.4	2.9	
	not fire									_, .		
96	5 9 2012	4	29	75	16	0.0	80.8	3.4	24	2.8	5.1	
1.7 97	fire 6 9 2012	1	29	74	19	0.1	75.8	3.6	32.2	2.1	5.6	
	not fire	1		, .		0.1	, , , ,	3.0	3212		3.0	
98	7 9 2012		31	71	17	0.3	69.6	3.2	30.1	1.5	5.1	
0.6 99	not fire 8 9 2012	1	30	73	17	0.9	62.0	2.6	8.4	1.1	3	
	not fire						0_10	_,,	•			
100	9 9 2012	4	30	77	15	1.0	56.1	2.1	8.4	0.7	2.6	
0.2 101	not fire 10 9 2012	1	33	73	12	1.8	59.9	2.2	8.9	0.7	2.7	
	not fire	1										
102	11 9 2012		30	77	21	1.8	58.5	1.9	8.4	1.1	2.4	
0.3 103	not fire 12 9 2012	1	29	88	13	0.0	71.0	2.6	16.6	1.2	3.7	
	not fire											
104 0	13 9 2012 not fire		25	86	21	4.6	40.9	1.3	7.5	0.1	1.8	
105	14 9 2012		22	76	26	8.3	47.4	1.1	7	0.4	1.6	
	not fire	1										
106 0	15 9 2012 not fire		24	82	15	0.4	44.9	0.9	7.3	0.2	1.4	
107	16 9 2012		30	65	14	0.0	78.1	3.2	15.7	1.9	4.2	
	not fire											
108 5.9	17 9 2012 fire	1	31	52	14	0.0	87.7	6.4	24.3	6.2	7.7	
109	18 9 2012	_	32	49	11	0.0	89.4	9.8	33.1	6.8	11.3	
7.7	fire	1	2.0				00.0	10.5	44.5	- 0	44.0	
110 9.7	19 9 2012 fire	1	29	5/	14	0.0	89.3	12.5	41.3	7.8	14.2	
111	20 9 2012	_	28	84	18	0.0	83.8	13.5	49.3	4.5	16	
6.3	fire	1	24		11	0.0	07.0	16 5	F7.0	F 4	10.2	
112 8.3	21 9 2012 fire	1	31	55	11	0.0	87.8	16.5	57.9	5.4	19.2	
113	22 9 2012		31	50	19	0.6	77.8	10.6	41.4	2.4	12.9	
	not fire	1	22	г 4	11	0.5	72 7	7.0	20.4	1 2	0.6	
114 0.7	23 9 2012 not fire		32	54	11	0.5	/3./	7.9	30.4	1.2	9.6	
115	24 9 2012		29	65	19	0.6	68.3	5.5	15.2	1.5	5.8	
	not fire		26	01	21	г о	10 6	2	7 7	0.4	2	
116 0.1	25 9 2012 not fire	1	20	01	21	5.8	40.0	3	7.7	0.4	3	
117	26 9 2012		31	54	11	0.0	82.0	6	16.3	2.5	6.2	
1.7 118	not fire 27 9 2012	1	21	66	11	аа	85 7	8.3	24 Q	4	9	
4.1	fire	1	٦.	50	11	0.0	05.7	0.5	47.3	4	J	

3

119	28 9 2012		32	47	14	0.7	77.5	7.1	8.8	1.8	6.8	
0.9 120	not fire 29 9 2012	1	26	80	16	1.8	47.4	2.9	7.7	0.3	3	
0.1	not fire	1										
121 0.1	30 9 2012 not fire	1	25	78	14	1.4	45.0	1.9	7.5	0.2	2.4	
122	1 6 2012	1	32	71	12	0.7	57.1	2.5	8.2	0.6	2.8	
	not fire	2	2.0		4.5				- 0			
123 0.2	2 6 2012 not fire	2	30	73	13	4.0	55./	2.7	7.8	0.6	2.9	
124	3 6 2012	_	29	80	14	2.0	48.7	2.2	7.6	0.3	2.6	
0.1 125	not fire 4 6 2012	2	20	64	1/	0 0	70 /	5.2	15.4	2.2	5.6	
123	not fire		30	04	14	0.0	73.4	3.2	13.4	2.2	5.0	
126	5 6 2012		32	60	14	0.2	77.1	6	17.6	1.8	6.5	
0.9 127	not fire 6 6 2012	2	35	54	11	a 1	83 7	8.4	26 3	3.1	93	
3.1	fire	2	33	J-1		0.1	03.7	0.4	20.5	J. I	3.3	
128	7 6 2012		35	44	17	0.2	85.6	9.9	28.9	5.4	10.7	
6 129	fire 8 6 2012	2	28	51	17	1.3	71.4	7.7	7.4	1.5	7.3	
0.8	not fire	2										
130 1.9	9 6 2012 not fire	2	27	59	18	0.1	78.1	8.5	14.7	2.4	8.3	
131	10 6 2012	2	30	41	15	0.0	89.4	13.3	22.5	8.4	13.1	
10	fire		24	42	24	0.0	00.6	10.2	20 5	12.4	10	1
132 6.7	11 6 2012 fire	2	31	42	21	0.0	90.6	18.2	30.5	13.4	18	1
133			27	58	17	0.0	88.9	21.3	37.8	8.7	21.2	1
2.9 134	fire 13 6 2012	2	30	52	15	2 0	72.3	11 Д	7.8	1 4	10.9	
0.9	not fire	2		32	10	2.0	72.5		7.0		10.5	
135	14 6 2012		27	79	16	0.7	53.4	6.4	7.3	0.5	6.1	
	not fire 15 6 2012		28	90	15	0.0	66.8	7.2	14.7	1.2	7.1	
0.6	not fire											
137 0.1	16 6 2012 not fire		29	87	15	0.4	47.4	4.2	8	0.2	4.1	
138	17 6 2012	_	31	69	17	4.7	62.2	3.9	8	1.1	3.8	
0.4	not fire	2	22	62	10	0 7	6E E	16	0 2	a 0	4.4	
139 0.4	18 6 2012 not fire	2	33	62	10	0.7	05.5	4.6	8.3	0.9	4.4	
140	19 6 2012		32	67	14	4.5	64.6	4.4	8.2	1	4.2	
0.4 141	not fire 20 6 2012	2	31	72	14	0.2	60.2	3.8	8	0.8	3.7	
0.3	not fire	2	J_	, _		0.2	00.2	3.0	Ü	0.0	3.,	
142	21 6 2012 fire	2	32	55	14	0.0	86.2	8.3	18.4	5	8.2	
4.9 143	22 6 2012	2	33	46	14	1.1	78.3	8.1	8.3	1.9	7.7	
1.2	not fire	2										
144 0.8	23 6 2012 not fire	2	33	59	16	0.8	74.2	7	8.3	1.6	6.7	
145	24 6 2012	2	35	68	16	0.0	85.3	10	17	4.9	9.9	
5.3	fire	2	2.4	70	1.0	0.0	06.0	12.0	25.6	F 4	12.7	
146 6.7	25 6 2012 fire	2	54	70	Т0	0.0	80.0	12.8	25.6	5.4	12.7	
147	26 6 2012		36	62	16	0.0	87.8	16.5	34.5	7	16.4	
9.5 148	fire 27 6 2012	2	36	55	15	a a	89 1	20 9	43.3	Я	20.8	
12	fire	2	50	,,	-2	5.0	07.1	20.7	<b>→</b> J•J	o	20.0	

149	28 6 2012	_	37	37	13	0.0	92.5	27.2	52.4	11.7	27.1	1
8.4 150	fire 29 6 2012	2	37	36	13	0.6	86.2	17.9	36.7	4.8	17.8	
7.2	fire	2										
151 2.2	30 6 2012 not fire	2	34	42	15	1.7	79.7	12	8.5	2.2	11.5	
152	1 7 2012	-	28	58	18	2.2	63.7	3.2	8.5	1.2	3.3	
0.5	not fire	2										
153 6.4	2 7 2012 fire	2	33	48	16	0.0	87.6	7.9	17.8	6.8	7.8	
154	3 7 2012	-	34	56	17	0.1	84.7	9.7	27.3	4.7	10.3	
5.2	fire	2	2.4		4.0			12.6	24.0			
155 9.9	4 7 2012 fire	2	34	58	18	0.0	88.0	13.6	36.8	8	14.1	
156	5 7 2012	_	34	45	18	0.0	90.5	18.7	46.4	11.3	18.7	
15	fire	2		4.0	4-		0.4 =	45.5	45.4		46.	
157 6.3	6 7 2012 fire	2	35	42	15	0.3	84.7	15.5	45.1	4.3	16.7	
158	7 7 2012	_	38	43	13	0.5	85.0	13	35.4	4.1	13.7	
5.2	fire	2	2.5	47	4.0		00.0	0.0	0.7	2.4	0.4	
159 3	8 7 2012 fire	2	35	47	18	6.0	80.8	9.8	9.7	3.1	9.4	
160	9 7 2012	_	36	43	15	1.9	82.3	9.4	9.9	3.2	9	
3.1	fire	2	2.4	F.1	1.0	2.0	F	0	0.5	2	<b>-</b> -	
161 1.3	10 7 2012 not fire	2	34	51	16	3.8	77.5	8	9.5	2	7.7	
162	11 7 2012		34	56	15	2.9	74.8	7.1	9.5	1.6	6.8	
0.8	not fire	2	26	4.4	12	0.0	00.1	12.6	10 4	0.2	12 F	
163 9.6	12 7 2012 fire	2	36	44	13	0.0	90.1	12.6	19.4	8.3	12.5	
164	13 7 2012		39	45	13	0.6	85.2	11.3	10.4	4.2	10.9	
4.7 165	fire 15 7 2012	2	2/	45	17	0.0	00 5	18	24.1	10.9	17.7	1
4.1	fire	2	54	43	17	0.0	30.3	10	24.1	10.5	1/./	1
166			31	83	17	0.0	84.5	19.4	33.1	4.7	19.2	
7.3 167	fire 17 7 2012	2	32	Ω1	17	9 9	8/1 6	21 1	42.3	17	20.9	
7.7	fire	2	32	01	17	0.0	04.0	21.1	42.5	4.7	20.5	
168	18 7 2012		33	68	15	0.0	86.1	23.9	51.6	5.2	23.9	
9.1 169	fire 19 7 2012	2	34	58	16	a a	88 1	27 8	61.1	7 3	27 7	
13	fire	2	54	50	10	0.0	00.1	27.0	01.1	7.5	27.7	
170	20 7 2012		36	50	16	0.0	89.9	32.7	71	9.5	32.6	1
7.3 171	fire 21 7 2012	2	36	29	18	0.0	93.9	39.6	80.6	18.5	39.5	
30	fire	2	50			0.0	33.3	33.0	00.0	10.5	33.3	
172	22 7 2012	2	32	48	18	0.0	91.5	44.2	90.1	13.2	44	2
5.4 173	fire 23 7 2012	2	31	71	17	0.0	87.3	46.6	99	6.9	46.5	1
6.3	fire	2										
174	24 7 2012	2	33	63	17	1.1	72.8	20.9	56.6	1.6	21.7	
2.5 175	not fire 25 7 2012	2	39	64	9	1.2	73.8	11.7	15.9	1.1	11.4	
0.7	not fire	2										
176	26 7 2012	2	35	58	10	0.2	78.3	10.8	19.7	1.6	10.7	
1 177	not fire 27 7 2012	2	29	87	18	0.0	80.0	11.8	28.3	2.8	11.8	
3.2	not fire	2										
178	28 7 2012	า	33	57	16	0.0	87.5	15.7	37.6	6.7	15.7	
9	fire	2										

				_		-	-			-			
179	29	7 2012		34	59	16	0.0	88.1	19.5	47.2	7.4	19.5	1
0.9 180	30	fire 7 2012	2	36	56	16	0.0	88.9	23.8	57.1	8.2	23.8	1
3.2		fire	2										
181	31	7 2012		37	55	15	0.0	89.3	28.3	67.2	8.3	28.3	1
4.5		fire	2										
182	1	8 2012	2	38	52	14	0.0	78.3	4.4	10.5	2	4.4	
0.8 183	no 2	ot fire 8 2012	2	40	34	14	0.0	93.3	10 0	21.4	13.8	10.6	1
3.5	2	fire	2	40	54	14	0.0	33.3	10.8	21.4	13.0	10.0	Т
184	3	8 2012	2	39	33	17	0.0	93.7	17.1	32.1	17.2	16.9	1
9.5		fire	2										
185	4	8 2012		38	35	15	0.0	93.8	23	42.7	15.7	22.9	2
0.9		fire	2										
186	5	8 2012		34	42	17	0.1	88.3	23.6	52.5	19	23.5	1
2.6		fire	2										
187	6	8 2012		30	54	14	3.1	70.5	11	9.1	1.3	10.5	
0.8		ot fire	2	2.4	63	12	2.0	60.7	7 0	0.0	4.2	6.0	
188 0.6	7 n	8 2012 ot fire	2	34	63	13	2.9	69.7	7.2	9.8	1.2	6.9	
189	8	8 2012	2	37	56	11	0.0	87.4	11.2	20.2	5.2	11	
5.9	Ü	fire	2	5,	50		0.0	07.4	11,2	20.2	3.2		
190	9	8 2012	_	39	43	12	0.0	91.7	16.5	30.9	9.6	16.4	1
2.7		fire	2										
191	10	8 2012		39	39	15	0.2	89.3	15.8	35.4	8.2	15.8	1
0.7		fire	2										
192	11	8 2012		40	31	15	0.0	94.2	22.5	46.3	16.6	22.4	2
1.6		fire	2										
193	12	8 2012	2	39	21	17	0.4	93.0	18.4	41.5	15.5	18.4	1
8.8 194	13	fire 8 2012	2	35	34	16	0.2	88.3	16.9	45.1	7.5	17.5	1
0.5	13	fire	2	33	34	10	0.2	00.3	10.9	43.1	7.5	17.5	
195	14	8 2012	_	37	40	13	0.0	91.9	22.3	55.5	10.8	22.3	1
5.7		fire	2										
196	15	8 2012		35	46	13	0.3	83.9	16.9	54.2	3.5	19	
5.5		fire	2										
197	16	8 2012		40	41	10	0.1	92.0	22.6	65.1	9.5	24.2	1
4.8		fire	2										
198	17	8 2012	2	42	24	9	0.0	96.0	30.3	76.4	15.7	30.4	
24 199	10	fire 8 2012	2	37	37	14	0 0	94.3	25 0	86.8	16	35.9	2
6.3	18	fire	2	37	37	14	0.0	94.5	33.9	00.0	16	33.9	2
200	19	8 2012	_	35	66	15	0.1	82.7	32.7	96.8	3.3	35.5	
7.7		fire	2										
201	20	8 2012		36	81	15	0.0	83.7	34.4	107	3.8	38.1	
9		fire	2										
202	21	8 2012		36	71	15	0.0	86.0	36.9	117.1	5.1	41.3	1
2.2		fire	2								_		
203	22	8 2012		37	53	14	0.0	89.5	41.1	127.5	8	45.5	1
8.1	22	fire	2	26	42	16	0 0	01 2	16 1	127 7	11 5	FQ 2	2
204 4.5	23	8 2012 fire	2	36	43	16	0.0	91.2	46.1	137.7	11.5	50.2	2
205	24	8 2012	2	35	38	15	0.0	92.1	51.3	147.7	12.2	54.9	2
6.9		fire	2	33	50		0.0	,,,,	32.3	, .,		5115	_
206	25	8 2012		34	40	18	0.0	92.1	56.3	157.5	14.3	59.5	3
1.1		fire	2										
207	26	8 2012		33	37	16	0.0	92.2	61.3	167.2	13.1	64	3
0.3		fire	2										
208	27	8 2012	_	36	54	14	0.0	91.0	65.9	177.3	10	68	2
6.1		fire	2										

209	28 8 2012		35	56	14	0.4	79.2	37	166	2.1	30.6	
6.1 210	not fire 29 8 2012	2	35	53	17	0.5	80.2	20.7	149.2	2.7	30.6	
5.9	fire	2	2.4	40	4.5	0.0	00.2	24.0	150 1	0.1	25.7	
211 16	30 8 2012 fire	2	34	49	15	0.0	89.2	24.8	159.1	8.1	35.7	
212	31 8 2012		30	59	19	0.0	89.1	27.8	168.2	9.8	39.3	1
9.4 213	fire 1 9 2012	2	29	86	16	0.0	37.9	0.9	8.2	0.1	1.4	
0	not fire	2	23	00	10	0.0	37.5	0.5	0.2	0.1	1.4	
214	2 9 2012	2	28	67	19	0.0	75.4	2.9	16.3	2	4	
0.8 215	not fire 3 9 2012	2	28	75	16	0.0	82.2	4.4	24.3	3.3	6	
2.5	fire	2										
216 0.7	4 9 2012 not fire	2	30	66	15	0.2	73.5	4.1	26.6	1.5	6	
217	5 9 2012	2	30	58	12	4.1	66.1	4	8.4	1	3.9	
0.4	not fire	2	2.4	74	4.4		64.5	2 2	0.4	4	2.5	
218 0.4	6 9 2012 not fire	2	34	71	14	6.5	64.5	3.3	9.1	1	3.5	
219	7 9 2012		31	62	15	0.0	83.3	5.8	17.7	3.8	6.4	
3.2 220	fire 8 9 2012	2	30	88	14	0.0	82.5	6.6	26.1	3	8.1	
2.7	fire	2	30	00	14	0.0	02.5	0.0	20.1	5	0.1	
221	9 9 2012	2	30	80	15	0.0	83.1	7.9	34.5	3.5	10	
3.7 222	fire 10 9 2012	2	29	74	15	1.1	59.5	4.7	8.2	0.8	4.6	
0.3	not fire	2										
223 1.2	11 9 2012 not fire	2	30	73	14	0.0	79.2	6.5	16.6	2.1	6.6	
224	12 9 2012	۷	31	72	14	0.0	84.2	8.3	25.2	3.8	9.1	
3.9	fire	2	20	40	4.0	0.0	00.6	44 5	22.4	0.4	12.4	
225 0.3	13 9 2012 fire	2	29	49	19	0.0	88.6	11.5	33.4	9.1	12.4	1
226	14 9 2012		28	81	15	0.0	84.6	12.6	41.5	4.3	14.3	
5.7 227	fire 15 9 2012	2	32	51	13	a a	88.7	16	50.2	6.9	17.8	
9.8	fire	2	52	J <u>.</u>	13	0.0	00.7	10	30.2	0.5	17.0	
228	16 9 2012	2	33	26	13	0.0	93.9	21.2	59.2	14.2	22.4	1
9.3	fire 17 9 2012	2	34	44	12	0.0	92.5	25.2	63.3	11.2	26.2	1
7.5	fire	2										
230 5.4	18 9 2012 fire	2	36	33	13	0.1	90.6	25.8	77.8	9	28.2	1
231	19 9 2012	2	29	41	8	0.1	83.9	24.9	86	2.7	28.9	
5.6	fire	2	2.4	F.0	12	0.2	70 5	10.7	00	2.4	24.4	
232	20 9 2012 not fire	2	34	58	13	0.2	/9.5	18.7	88	2.1	24.4	
233	21 9 2012		35	34	17	0.0	92.2	23.6	97.3	13.8	29.4	2
1.6 234	fire 22 9 2012	2	33	64	13	0 0	99 Q	26.1	106.3	7 1	32.4	1
3.7	fire	2	33	04	13	0.0	00.9	20.1	100.5	/.1	32.4	1
235	23 9 2012		35	56	14	0.0	89.0	29.4	115.6	7.5	36	1
5.2 236	fire 24 9 2012	2	26	49	6	2.0	61.3	11.9	28.1	0.6	11.9	
0.4	not fire	2										
237 3	25 9 2012 not fire	2	28	70	15	0.0	79.9	13.8	36.1	2.4	14.1	
238	26 9 2012	2	30	65	14	0.0	85.4	16	44.5	4.5	16.9	
6.5	fire	2										

```
41.1
                                                           6.5
239
     27
             9
                2012
                                28
                                    87
                                        15
                                              4.4
                                                                     8
                                                                         0.1
                                                                                6.2
0
     not fire
                         2
240
     28
             9
                2012
                               27
                                    87
                                        29
                                              0.5
                                                   45.9
                                                           3.5
                                                                   7.9
                                                                         0.4
                                                                                3.4
0.2
       not fire
                           2
                                                   79.7
241
     29
             9 2012
                               24
                                    54
                                        18
                                              0.1
                                                           4.3
                                                                  15.2
                                                                         1.7
                                                                                5.1
0.7
       not fire
                           2
242
     30
             9 2012
                                    64
                                              0.2 67.3
                                                           3.8
                                                                  16.5
                                24
                                        15
                                                                         1.2
                                                                                4.8
0.5
      not fire
                           2
```

Przerabianie danych na dataframe na potrzeby analizy

```
In []: dane.shape
Out[]: (243, 15)
In []: dane[dane.isnull().any(axis=1)]
Out[]: day month year Temperature RH Ws Rain FFMC DMC DC ISI BUI FWI Classes F
```

Wyświetlenie danych na dataframe

```
In [ ]: print(dane.to_string)
```

```
<bound method DataFrame.to string of</pre>
                                                                                       R
                                              day month year Temperature
                                                                              RH
                                                                                   Ws
ain
     FFMC
           DMC
                    DC ISI
                               BUI
             6
                                29
                                     57
                                                                  7.6
                                                                        1.3
0
      1
                 2012
                                         18
                                               0.0
                                                    65.7
                                                           3.4
                                                                               3.4
1
      2
             6
                2012
                                29
                                         13
                                                     64.4
                                                           4.1
                                                                  7.6
                                                                               3.9
                                     61
                                               1.3
                                                                          1
2
      3
             6
                2012
                                26
                                     82
                                         22
                                              13.1
                                                     47.1
                                                           2.5
                                                                  7.1
                                                                        0.3
                                                                               2.7
3
      4
             6
                2012
                                25
                                     89
                                         13
                                               2.5
                                                     28.6
                                                           1.3
                                                                  6.9
                                                                          0
                                                                               1.7
4
      5
             6
                2012
                                27
                                     77
                                         16
                                               0.0
                                                     64.8
                                                              3
                                                                 14.2
                                                                        1.2
                                                                               3.9
238
             9
                2012
                                30
                                                     85.4
                                                                 44.5
                                                                        4.5
     26
                                     65
                                         14
                                               0.0
                                                            16
                                                                             16.9
                                                                        0.1
239
     27
             9
                2012
                                28
                                     87
                                         15
                                               4.4
                                                    41.1
                                                           6.5
                                                                    8
                                                                              6.2
240
     28
             9
                2012
                                27
                                     87
                                         29
                                               0.5
                                                    45.9
                                                           3.5
                                                                  7.9
                                                                        0.4
                                                                              3.4
241
     29
             9
                2012
                                     54
                                                    79.7
                                                           4.3
                                24
                                         18
                                               0.1
                                                                 15.2
                                                                        1.7
                                                                               5.1
242
     30
             9
                2012
                                24
                                     64
                                         15
                                               0.2
                                                    67.3
                                                           3.8
                                                                 16.5
                                                                        1.2
                                                                              4.8
```

```
FWI
                 Classes Region
0
     0.5
            not fire
                                1
     0.4
            not fire
                                1
1
2
     0.1
            not fire
                                1
3
            not fire
                                1
       0
4
     0.5
            not fire
                                1
                               . . .
     6.5
                                2
238
                 fire
239
       0
            not fire
                                2
                                2
240
     0.2
            not fire
                                2
241
     0.7
            not fire
           not fire
242
     0.5
                                2
```

[243 rows x 15 columns]>

Naprawa kolumn

```
In [ ]: dane.columns
```

	day month year		RH	Ws	Rain	FFMC	DMC	DC	ISI	BUI	
FWI 0	Classes 1 6 2012	29	57	18	0.0	65.7	3.4	7.6	1.3	3.4	
0.5	not fire 2 6 2012	1 29	61	13	1.3	64.4	4.1	7.6	1	3.9	
0.4 2 0.1	not fire 3 6 2012 not fire	1 26 1	82	22	13.1	47.1	2.5	7.1	0.3	2.7	
3	4 6 2012 not fire	25 1	89	13	2.5	28.6	1.3	6.9	0	1.7	
4 0.5	5 6 2012 not fire	27 1	77	16	0.0	64.8	3	14.2	1.2	3.9	
5 2.5	6 6 2012 fire	31 1	67	14	0.0	82.6	5.8	22.2	3.1	7	
6 7.2	7 6 2012 fire	33 1	54	13	0.0	88.2	9.9	30.5	6.4	10.9	
7 7.1	8 6 2012 fire	30 1	73	15	0.0	86.6	12.1	38.3	5.6	13.5	
8 0.3	9 6 2012 not fire	25 1	88	13	0.2	52.9	7.9	38.8	0.4	10.5	
9 0.9	10 6 2012 not fire	28 1	79	12	0.0	73.2	9.5	46.3	1.3	12.6	
10 5.6	11 6 2012 fire	31 1	65	14	0.0	84.5	12.5	54.3	4	15.8	
11 7.1	12 6 2012 fire	26 1	81	19		84.0	13.8	61.4	4.8	17.7	
12 0.2 13	13 6 2012 not fire 14 6 2012	27 1 30	84 78	21	0.5	50.0	6.7	17 7.8	0.5	6.7 4.4	
0.4 14	not fire 15 6 2012	1 28	80	20 17	3.1	49.4	4.6 3	7.8	0.4	3	
0.1 15	not fire 16 6 2012	1	89	13	0.7		1.7	7.4	0.4	2.2	
0 16	not fire 17 6 2012	1						7.8			
0 17	not fire 18 6 2012	1	78					8		2.4	
0.2 18	not fire 19 6 2012		55	16	0.1	79.9	4.5	16	2.5	5.3	
1.4 19	20 6 2012	1 30	80	16	0.4	59.8	3.4	27.1	0.9	5.1	
0.4 20	not fire 21 6 2012		78	14	0.0	81.0	6.3	31.6	2.6	8.4	
2.2	fire 22 6 2012		67	17	0.1	79.1	7	39.5	2.4	9.7	
2.3 22 3.8	not fire 23 6 2012 fire	1 32 1	62	18	0.1	81.4	8.2	47.7	3.3	11.5	
23 7.5	24 6 2012 fire		66	17	0.0	85.9	11.2	55.8	5.6	14.9	
24 8.4	25 6 2012 fire	31	64	15	0.0	86.7	14.2	63.8	5.7	18.3	
25 0.6	26 6 2012 fire	31	64	18	0.0	86.8	17.8	71.8	6.7	21.6	1
26 15	27 6 2012 fire	34	53	18	0.0	89.0	21.6	80.3	9.2	25.8	
27 3.9	28 6 2012 fire	32 1	55	14	0.0	89.1	25.5	88.5	7.6	29.7	1
28 3.9	29 6 2012 not fire	32 1	47	13	0.3	79.9	18.4	84.4	2.2	23.8	

30 6 2012		33	50	14	0.0	88.7	22.9	92.8	7.2	28.3	1
	1	29	68	19	1.0	59.9	2.5	8.6	1.1	2.9	
not fire	1		00		2.0	33.3	2.5	0.0		213	
2 7 2012		27	75	19	1.2	55.7	2.4	8.3	0.8	2.8	
not fire	1									_	
	1	32	76	20	0.7	63.1	2.6	9.2	1.3	3	
	1	33	78	17	a a	80 1	4.6	18 5	2 7	5 7	
not fire	1	33	, 0	-/	0.0	00.1	4.0	10.5	2.,	3.7	
5 7 2012		33	66	14	0.0	85.9	7.6	27.9	4.8	9.1	
fire	1										
	1	32	63	14	0.0	87.0	10.9	37	5.6	12.5	
		35	64	18	0.2	80.0	9.7	40.4	2.8	12.1	
		33	0.		0.2	00.0	3.,		2.0		
8 7 2012		33	68	19	0.0	85.6	12.5	49.8	6	15.4	
		32	68	14	1.4	66.6	7.7	9.2	1.1	7.4	
	1	33	69	13	0.7	66.6	6	9.3	1.1	5.8	
not fire	1								_,_		
11 7 2012		33	76	14	0.0	81.1	8.1	18.7	2.6	8.1	
not fire	1	24		4.5		<b></b> 4	- 0		4 -		
	1	31	75	13	0.1	75.1	7.9	27.7	1.5	9.2	
	1	34	81	15	0.0	81.8	9.7	37.2	3	11.7	
not fire	1		-			0_10	- • •	57.12		,	
14 7 2012		34	61	13	0.6	73.9	7.8	22.9	1.4	8.4	
not fire	1										
		30	80	19	0.4	60.7	5.2	17	1.1	5.9	
		28	76	21	0.0	72.6	7	25.5	0.7	8.3	
			, 0		0.0	, 210	•	23.3	0.7	0.5	
		29	70	14	0.0	82.8	9.4	34.1	3.2	11.1	
	1	24				0= 4	10.1	42.4		44.0	
	1	31	68	14	0.0	85.4	12.1	43.1	4.6	14.2	
		35	59	17	0.0	88.1	12	52.8	7.7	18.2	1
fire	1										
20 7 2012		33	65	15	0.1	81.4	12.3	62.1	2.8	16.5	
	1	22	70	17	0.0	05.4	10 F	71 -	г э	22.4	
	1	33	70	1/	0.0	85.4	18.5	/1.5	5.2	22.4	
	-	28	79	18	0.1	73.4	16.4	79.9	1.8	21.7	
not fire	1										
23 7 2012		27	66	22	0.4	68.2	10.5	71.3	1.8	15.4	
	1	20	70	1.0	0 1	70.0	0.6	70. 7	1 1	14 7	
	1	28	/8	16	0.1	70.0	9.6	79.7	1.4	14./	
	_	31	65	18	0.0	84.3	12.5	88.7	4.8	18.5	
fire	1										
26 7 2012		36	53	19	0.0	89.2	17.1	98.6	10	23.9	1
		2.0	40	12	0.0	00.3	22.2	100 5	0.7	20.4	1
		36	48	13	0.0	90.3	22.2	108.5	8./	29.4	T
	1	33	76	15	0.0	86.5	24.4	117.8	5.6	32.1	1
fire	1	-				_			-		
29 7 2012		32	73	15	0.0	86.6	26.7	127	5.6	35	1
fire	1										
	fire 1	fire 1 1 7 2012 not fire 1 2 7 2012 not fire 1 3 7 2012 not fire 1 4 7 2012 not fire 1 5 7 2012 fire 1 6 7 2012 fire 1 7 7 2012 not fire 1 8 7 2012 not fire 1 9 7 2012 not fire 1 10 7 2012 not fire 1 11 7 2012 not fire 1 11 7 2012 not fire 1 12 7 2012 not fire 1 13 7 2012 not fire 1 14 7 2012 not fire 1 15 7 2012 not fire 1 16 7 2012 not fire 1 17 7 2012 not fire 1 18 7 2012 not fire 1 19 7 2012 not fire 1 10 7 2012 not fire 1 11 7 2012 not fire 1 12 7 2012 not fire 1 13 7 2012 not fire 1 14 7 2012 not fire 1 15 7 2012 not fire 1 16 7 2012 not fire 1 17 7 2012 not fire 1 18 7 2012 not fire 1 19 7 2012 fire 1 10 7 2012 fire 1 11 7 2012 fire 1 12 7 2012 fire 1 12 7 2012 fire 1 12 7 2012 not fire 1 12 7 2012 fire 1	fire         1         7         2012         29           not fire         1         27         2012         27           not fire         1         3         32         32           not fire         1         4         7         2012         33           not fire         1         3         33         33         33         33         33         33         33         33         33         34         32         33         34         32         32         32         32         33         34         32         33         34         32         34         33         34         34         33         34         33         34         33         34         34         34         34         33         34 <td>fire 1</td> <td>  Fire   1</td> <td>                                     </td> <td>fire 1 7 2012</td> <td>  Time</td> <td>  Fire</td> <td>fire 1 7 2012</td> <td>  Fire</td>	fire 1	Fire   1		fire 1 7 2012	Time	Fire	fire 1 7 2012	Fire

59	30	7 2012	4	31	79	15	0.0	85.4	28.5	136	4.7	37.4	1
0.7 60	31	fire 7 2012	1	35	64	17	0.0	87.2	31.9	145.7	6.8	41.2	1
5.7		fire	1										
61	1	8 2012		36	45	14	0.0	78.8	4.8	10.2	2	4.7	
0.9		fire	1										
62	2	8 2012	1	35	55	12	0.4	78.0	5.8	10	1.7	5.5	
0.8 63	not 3	fire 8 2012	1	35	63	14	0.3	76.6	5.7	10	1.7	5.5	
0.8		fire	1	33	03	14	0.5	70.0	3.7	10	1.7	3.3	
64		8 2012	_	34	69	13	0.0	85.0	8.2	19.8	4	8.2	
3.9		fire	1										
65	5	8 2012		34	65	13	0.0	86.8	11.1	29.7	5.2	11.5	
6.1		fire	1										
66	6	8 2012		32	75	14	0.0	86.4	13	39.1	5.2	14.2	
6.8	_	fire	1					06.5	45.5	40.6		4= 0	
67		8 2012	1	32	69	16	0.0	86.5	15.5	48.6	5.5	17.2	
8 68	8	ire 8 2012	1	32	60	18	0.3	77.1	11 3	47	2.2	14.1	
2.6		fire	1	52	00	10	0.5	//.1	11.5	47	2.2	14.1	
69	9	8 2012	_	35	59	17	0.0	87.4	14.8	57	6.9	17.9	
9.9		fire	1										
70	10	8 2012		35	55	14	0.0	88.9	18.6	67	7.4	21.9	1
1.6		fire	1										
71	11	8 2012		35	63	13	0.0	88.9	21.7	77	7.1	25.5	1
2.1	12	fire	1	25	<b>-</b> 1	12	0.3	01 2	15.6	75 1	2 5	20.7	
72 4.2	12 not	8 2012 fire	1	35	51	13	0.3	81.3	15.6	75.1	2.5	20.7	
73		8 2012	1	35	63	15	0.0	87.0	19	85.1	5.9	24.4	1
0.2		fire	1	33	03		0.0	0, 10		03.1	3.3		_
74	14	8 2012		33	66	14	0.0	87.0	21.7	94.7	5.7	27.2	1
0.6		fire	1										
75	15	8 2012		36	55	13	0.3	82.4	15.6	92.5	3.7	22	
6.3	4.0	fire	1	2.5		4.0			44 -	00.4		47.6	
76 4 2	16	8 2012 fire		36	61	18	0.3	80.2	11./	90.4	2.8	17.6	
4.2 77	17	8 2012	1	37	52	18	a a	89.3	16	100.7	9.7	22.9	1
4.6	17	fire	1	57	52	10	0.0	05.5	10	100.7	٥.,	22.5	-
78	18	8 2012		36	54	18	0.0	89.4	20	110.9	9.7	27.5	1
6.1		fire	1										
79	19	8 2012		35	62	19	0.0	89.4	23.2	120.9	9.7	31.3	1
7.2		fire	1										
80	20	8 2012	1	35	68	19	0.0	88.3	25.9	130.6	8.8	34.7	1
6.8 81	21	fire 8 2012	1	36	58	19	0.0	88.6	29 6	141.1	9.2	38.8	1
8.4	21	fire	1	50	50	10	0.0	00.0	23.0	141.1	٥.٤	50.0	_
82	22	8 2012	_	36	55	18	0.0	89.1	33.5	151.3	9.9	43.1	2
0.4		fire	1										
83	23	8 2012		36	53	16	0.0	89.5	37.6	161.5	10.4	47.5	2
2.3		fire	1										
84	24	8 2012		34	64	14	0.0	88.9	40.5	171.3	9	50.9	2
0.9	25	fire	1	2.5	60	4.5	0.0	00.0	42.0	404 2	0 0	54 <b>3</b>	_
85 0.3	25	8 2012 fire	1	35	60	15	0.0	88.9	43.9	181.3	8.2	54.7	2
86	26	8 2012	1	31	78	18	0.0	85.8	45.6	190.6	4.7	57.1	1
3.7	_0	fire	1	J-	, 5		3.0	22.0	.5.0		,	J, • ±	_
87	27	8 2012		33	82	21	0.0	84.9	47	200.2	4.4	59.3	1
3.2		fire	1										
88	28	8 2012		34	64	16	0.0	89.4	50.2	210.4	7.3	62.9	1
9.9		fire	1										

89		_	35	48	18	0.0	90.1	54.2	220.4	12.5	67.4	
0.2 90	fire 30 8 2012	1	35	70	17	0.8	72.7	25.2	180.4	1.7	37.4	
4.2 91	not fire 31 8 2012	1	28	80	21	16.8	52.5	8.7	8.7	0.6	8.3	
0.3	not fire	1										
92 0.1	1 9 2012 not fire	1	25	76	17	7.2	46.0	1.3	7.5	0.2	1.8	
	2 9 2012 not fire	1	22	86	15	10.1	30.5	0.7	7	0	1.1	
94	3 9 2012		25	78	15	3.8	42.6	1.2	7.5	0.1	1.7	
0 95	not fire 4 9 2012	1	29	73	17	0.1	68.4	1.9	15.7	1.4	2.9	
0.5 96	not fire 5 9 2012	1	29	75	16	0.0	80.8	3.4	24	2.8	5.1	
1.7 97	fire 6 9 2012	1	20	74	10					2.1	F 6	
	not fire	1			19		75.8		32.2	2.1	5.6	
98 0.6	7 9 2012 not fire	1	31	71	17	0.3	69.6	3.2	30.1	1.5	5.1	
99 0.4	8 9 2012 not fire	1	30	73	17	0.9	62.0	2.6	8.4	1.1	3	
100	9 9 2012		30	77	15	1.0	56.1	2.1	8.4	0.7	2.6	
0.2 101	not fire 10 9 2012	1	33	73	12	1.8	59.9	2.2	8.9	0.7	2.7	
0.3 102	not fire 11 9 2012	1	30	77	21	1.8	58.5	1.9	8.4	1.1	2.4	
	not fire	1		88		0.0					3.7	
0.5	not fire	1								1.2		
104 0	13 9 2012 not fire		25	86	21	4.6	40.9	1.3	7.5	0.1	1.8	
105 0.1	14 9 2012 not fire	1	22	76	26	8.3	47.4	1.1	7	0.4	1.6	
106	15 9 2012		24	82	15	0.4	44.9	0.9	7.3	0.2	1.4	
0 107			30	65	14	0.0	78.1	3.2	15.7	1.9	4.2	
0.8 108	not fire 17 9 2012		31	52	14	0.0	87.7	6.4	24.3	6.2	7.7	
5.9	fire	1		49				9.8				
109 7.7	fire	1								6.8		
110 9.7	19 9 2012 fire	1	29	57	14	0.0	89.3	12.5	41.3	7.8	14.2	
111 6.3	20 9 2012 fire	1	28	84	18	0.0	83.8	13.5	49.3	4.5	16	
112	21 9 2012		31	55	11	0.0	87.8	16.5	57.9	5.4	19.2	
8.3 113	fire 22 9 2012	1	31	50	19	0.6	77.8	10.6	41.4	2.4	12.9	
2.8 114	not fire 23 9 2012	1	32	54	11	0.5	73.7	7.9	30.4	1.2	9.6	
0.7	not fire	1										
	24 9 2012 not fire	1						5.5		1.5		
116 0.1	25 9 2012 not fire		26	81	21	5.8	48.6	3	7.7	0.4	3	
117	26 9 2012 not fire		31	54	11	0.0	82.0	6	16.3	2.5	6.2	
118	27 9 2012		31	66	11	0.0	85.7	8.3	24.9	4	9	
4.1	fire	1										

3

119	28 9 2012		32	47	14	0.7	77.5	7.1	8.8	1.8	6.8	
0.9 120	not fire 29 9 2012	1	26	80	16	1.8	47.4	2.9	7.7	0.3	3	
0.1	not fire	1	20	00	10	1.0	77.7	2.3	7.7	0.5	,	
121	30 9 2012	1	25	78	14	1.4	45.0	1.9	7.5	0.2	2.4	
0.1 122	not fire 1 6 2012	1	32	71	12	0.7	57.1	2.5	8.2	0.6	2.8	
0.2	not fire	2										
123 0.2	2 6 2012 not fire	2	30	73	13	4.0	55.7	2.7	7.8	0.6	2.9	
124	3 6 2012	۷	29	80	14	2.0	48.7	2.2	7.6	0.3	2.6	
0.1	not fire		2.0				<b>70</b> 4		45.4			
125 1	4 6 2012 not fire		30	64	14	0.0	79.4	5.2	15.4	2.2	5.6	
126	5 6 2012		32	60	14	0.2	77.1	6	17.6	1.8	6.5	
	not fire 6 6 2012	2	25	54	11	0 1	02 7	8.4	26.2	3.1	0.2	
127 3.1	fire	2	33	54	11	0.1	83.7	0.4	20.3	3.1	9.3	
128	7 6 2012		35	44	17	0.2	85.6	9.9	28.9	5.4	10.7	
6 129	fire 8 6 2012	2	28	51	17	1 3	71 <i>4</i>	7 7	7.4	1 5	7.3	
0.8	not fire	2	20	J <u>-</u>	Δ,	1.5	,	, . ,	7 • ¬	1.5	,	
130	9 6 2012		27	59	18	0.1	78.1	8.5	14.7	2.4	8.3	
1.9 131	not fire 10 6 2012		30	41	15	0.0	89.4	13.3	22.5	8.4	13.1	
10	fire	2										
132 6.7	11 6 2012 fire		31	42	21	0.0	90.6	18.2	30.5	13.4	18	1
133	12 6 2012	۷	27	58	17	0.0	88.9	21.3	37.8	8.7	21.2	1
2.9	fire		2.0		4-				- 0		10.0	
134 0.9	13 6 2012 not fire	2		52	15	2.0	72.3	11.4	7.8	1.4	10.9	
135	14 6 2012		27	79	16	0.7	53.4	6.4	7.3	0.5	6.1	
	not fire 15 6 2012	2		90	15	0 0	66 8	7 2	14.7	1 2	7 1	
0.6	not fire		20	50	13	0.0	00.0	7.2	14.7	1.2	/ · ·	
137	16 6 2012		29	87	15	0.4	47.4	4.2	8	0.2	4.1	
0.1 138	not fire 17 6 2012	2	31	69	17	4.7	62.2	3.9	8	1.1	3.8	
0.4	not fire	2										
139 0.4	18 6 2012 not fire	2	33	62	10	8.7	65.5	4.6	8.3	0.9	4.4	
140	19 6 2012	2	32	67	14	4.5	64.6	4.4	8.2	1	4.2	
0.4	not fire	2	24	70	4.4	0 0	60.0	2.0	0	0.0	2 7	
141 0.3	20 6 2012 not fire	2	31	72	14	0.2	60.2	3.8	8	0.8	3.7	
142	21 6 2012		32	55	14	0.0	86.2	8.3	18.4	5	8.2	
4.9 143	fire 22 6 2012	2	33	46	14	1 1	70 3	Ω 1	8.3	1.9	7.7	
1.2	not fire	2	33	40	14	1.1	70.3	0.1	0.3	1.9	/./	
144	23 6 2012		33	59	16	0.8	74.2	7	8.3	1.6	6.7	
0.8 145	not fire 24 6 2012		35	68	16	0.0	85.3	10	17	4.9	9.9	
5.3	fire		33	00	10	0.0	03.3	10		4.5	J.J	
146	25 6 2012	2	34	70	16	0.0	86.0	12.8	25.6	5.4	12.7	
6.7 147	fire 26 6 2012	2	36	62	16	0.0	87.8	16.5	34.5	7	16.4	
9.5	fire	2										
148 12	27 6 2012 fire		36	55	15	0.0	89.1	20.9	43.3	8	20.8	
14	TITLE	4										

149	28 6 2012	2	37	37	13	0.0	92.5	27.2	52.4	11.7	27.1	1
8.4 150	fire 29 6 2012	2	37	36	13	0.6	86.2	17.9	36.7	4.8	17.8	
7.2	fire	2	2.4	42	15	1 7	70 7	12	0 5	2.2	11.5	
151 2.2	30 6 2012 not fire	2	34	42	15	1./	79.7	12	8.5	2.2	11.5	
152	1 7 2012	_	28	58	18	2.2	63.7	3.2	8.5	1.2	3.3	
0.5	not fire	2										
153	2 7 2012		33	48	16	0.0	87.6	7.9	17.8	6.8	7.8	
6.4 154	fire 3 7 2012	2	34	56	17	a 1	8/1 7	9.7	27.3	4.7	10.3	
5.2	fire	2	J <del>-1</del>	50	17	0.1	04.7	5.7	27.3	4.7	10.5	
155	4 7 2012		34	58	18	0.0	88.0	13.6	36.8	8	14.1	
9.9	fire	2										
156 15	5 7 2012 fire	2	34	45	18	0.0	90.5	18.7	46.4	11.3	18.7	
157	6 7 2012	2	35	42	15	0.3	84.7	15.5	45.1	4.3	16.7	
6.3	fire	2	33			0.5	0117	13.3	.5.1		1017	
158	7 7 2012		38	43	13	0.5	85.0	13	35.4	4.1	13.7	
5.2	fire	2			4.0					2.4		
159 3	8 7 2012 fire	2	35	47	18	6.0	80.8	9.8	9.7	3.1	9.4	
160	9 7 2012	2	36	43	15	1.9	82.3	9.4	9.9	3.2	9	
3.1	fire	2										
161	10 7 2012		34	51	16	3.8	77.5	8	9.5	2	7.7	
1.3 162	not fire 11 7 2012	2	34	56	15	2.0	74.0	7.1	0.5	1 (	6.8	
0.8	11 7 2012 not fire	2	54	50	13	2.9	74.0	/.1	9.5	1.0	0.0	
163	12 7 2012	_	36	44	13	0.0	90.1	12.6	19.4	8.3	12.5	
9.6	fire	2										
164	13 7 2012	2	39	45	13	0.6	85.2	11.3	10.4	4.2	10.9	
4.7 165	fire 15 7 2012	2	34	45	17	a a	90 5	18	24.1	10.9	17.7	1
4.1	fire	2	54	73	Τ,	0.0	50.5	10	24.1	10.5	17.7	_
166	16 7 2012		31	83	17	0.0	84.5	19.4	33.1	4.7	19.2	
7.3	fire	2										
167 7.7	17 7 2012 fire	2	32	81	17	0.0	84.6	21.1	42.3	4.7	20.9	
168	18 7 2012	2	33	68	15	0.0	86.1	23.9	51.6	5.2	23.9	
9.1	fire	2										
169	19 7 2012		34	58	16	0.0	88.1	27.8	61.1	7.3	27.7	
13	fire	2	26	ΓO	1.0	0.0	90 0	22 7	71	0.5	22 6	1
170 7.3	20 7 2012 fire	2	36	50	16	0.0	89.9	32.7	71	9.5	32.6	1
171	21 7 2012	_	36	29	18	0.0	93.9	39.6	80.6	18.5	39.5	
30	fire	2										
172	22 7 2012	2	32	48	18	0.0	91.5	44.2	90.1	13.2	44	2
5.4 173	fire 23 7 2012	2	31	71	17	a a	87 3	46 6	99	6 9	46.5	1
6.3	fire	2	J <u>.</u>	, _	Τ,	0.0	07.5	40.0		0.5	40.5	_
174	24 7 2012		33	63	17	1.1	72.8	20.9	56.6	1.6	21.7	
2.5	not fire	2										
175 0.7	25 7 2012 not fire	2	39	64	9	1.2	73.8	11.7	15.9	1.1	11.4	
176	26 7 2012	2	35	58	10	0.2	78.3	10.8	19.7	1.6	10.7	
1	not fire	2			-	–			• •			
177	27 7 2012		29	87	18	0.0	80.0	11.8	28.3	2.8	11.8	
3.2 178	not fire 28 7 2012	2	22	<b>5</b> 7	16	0.0	Q7 F	15 7	37.6	6 7	15 7	
9	fire	2	23	/ ر	10	9.0	07.5	13./	٥,,८	0.7	13./	

179	29	7 2012		34	59	16	0.0	88.1	19.5	47.2	7.4	19.5	1
0.9 180	30	fire 7 2012	2	36	56	16	0.0	88.9	23.8	57.1	8.2	23.8	1
3.2	50	fire	2	50	50	10	0.0	00.5	23.0	37.1	0.2	23.0	_
181	31	7 2012		37	55	15	0.0	89.3	28.3	67.2	8.3	28.3	1
4.5		fire	2										
182	1	8 2012	2	38	52	14	0.0	78.3	4.4	10.5	2	4.4	
0.8 183	n 2	ot fire 8 2012	2	40	34	14	0.0	93.3	10.8	21.4	13.8	10.6	1
3.5	2	fire	2	40	54	14	0.0	33.3	10.0	21.4	13.0	10.0	1
184	3	8 2012	_	39	33	17	0.0	93.7	17.1	32.1	17.2	16.9	1
9.5		fire	2										
185	4	8 2012		38	35	15	0.0	93.8	23	42.7	15.7	22.9	2
0.9	_	fire	2	2.4	4.0	47	0.4	00.3	22.6	F2 F	40	22 5	
186 2.6	5	8 2012 fire	2	34	42	17	0.1	88.3	23.6	52.5	19	23.5	1
187	6	8 2012	2	30	54	14	3.1	70.5	11	9.1	1.3	10.5	
0.8		ot fire	2								_,_		
188	7	8 2012		34	63	13	2.9	69.7	7.2	9.8	1.2	6.9	
0.6		ot fire	2										
189	8	8 2012	2	37	56	11	0.0	87.4	11.2	20.2	5.2	11	
5.9 190	9	fire 8 2012	2	39	43	12	0.0	91.7	16.5	30.9	9.6	16.4	1
2.7	9	fire	2	33	43	12	0.0	91.7	10.5	30.9	9.0	10.4	_
191	10	8 2012		39	39	15	0.2	89.3	15.8	35.4	8.2	15.8	1
0.7		fire	2										
192	11	8 2012	_	40	31	15	0.0	94.2	22.5	46.3	16.6	22.4	2
1.6	12	fire	2	20	21	17	0.4	02.0	10 /	41 F	15 5	10 /	1
193 8.8	12	8 2012 fire	2	39	21	17	0.4	93.0	18.4	41.5	15.5	18.4	1
194	13	8 2012	_	35	34	16	0.2	88.3	16.9	45.1	7.5	17.5	1
0.5		fire	2										
195	14	8 2012		37	40	13	0.0	91.9	22.3	55.5	10.8	22.3	1
5.7		fire	2										
196 5.5	15	8 2012 fire	2	35	46	13	0.3	83.9	16.9	54.2	3.5	19	
197	16	8 2012	2	40	41	10	0.1	92.0	22.6	65.1	9.5	24.2	1
4.8		fire	2										
198	17	8 2012		42	24	9	0.0	96.0	30.3	76.4	15.7	30.4	
24		fire	2										_
199 6.3	18	8 2012 fire	า	37	37	14	0.0	94.3	35.9	86.8	16	35.9	2
200	19	8 2012	2	35	66	15	0.1	82.7	32.7	96.8	3.3	35.5	
7.7		fire	2	33			0.1	02.7	3217	30.0	3.3	33.3	
201	20	8 2012		36	81	15	0.0	83.7	34.4	107	3.8	38.1	
9		fire	2										
202	21	8 2012	2	36	71	15	0.0	86.0	36.9	117.1	5.1	41.3	1
2.2	22	fire 8 2012	2	37	53	14	a a	89 5	41.1	127.5	Ω	45.5	1
8.1	22	fire	2	57	23	14	0.0	05.5	41.1	12/.5	0	40.0	_
204	23	8 2012	_	36	43	16	0.0	91.2	46.1	137.7	11.5	50.2	2
4.5		fire	2										
205	24	8 2012	_	35	38	15	0.0	92.1	51.3	147.7	12.2	54.9	2
6.9	25	fire	2	2.4	40	10	0 0	02.1	FC 2	157 5	14.2	FO F	2
206 1.1	25	8 2012 fire	2	34	40	18	0.0	92.1	50.3	157.5	14.3	59.5	3
207	26	8 2012	_	33	37	16	0.0	92.2	61.3	167.2	13.1	64	3
0.3		fire	2										
208	27	8 2012		36	54	14	0.0	91.0	65.9	177.3	10	68	2
6.1		fire	2										

209	28 8 2012		35	56	14	0.4	79.2	37	166	2.1	30.6	
6.1 210	not fire 29 8 2012	2	35	53	17	0.5	80.2	20.7	149.2	2.7	30.6	
5.9	fire	2	2.4	40	4.5	0.0	00.2	24.0	150 1	0.1	25.7	
211 16	30 8 2012 fire	2	34	49	15	0.0	89.2	24.8	159.1	8.1	35.7	
212	31 8 2012		30	59	19	0.0	89.1	27.8	168.2	9.8	39.3	1
9.4 213	fire 1 9 2012	2	29	86	16	0.0	37.9	0.9	8.2	0.1	1.4	
0	not fire	2	23	00	10	0.0	37.5	0.5	0.2	0.1	1.4	
214	2 9 2012	2	28	67	19	0.0	75.4	2.9	16.3	2	4	
0.8 215	not fire 3 9 2012	2	28	75	16	0.0	82.2	4.4	24.3	3.3	6	
2.5	fire	2										
216 0.7	4 9 2012 not fire	2	30	66	15	0.2	73.5	4.1	26.6	1.5	6	
217	5 9 2012	2	30	58	12	4.1	66.1	4	8.4	1	3.9	
0.4	not fire	2	2.4	74	4.4		64.5	2 2	0.4	4	2.5	
218 0.4	6 9 2012 not fire	2	34	71	14	6.5	64.5	3.3	9.1	1	3.5	
219	7 9 2012		31	62	15	0.0	83.3	5.8	17.7	3.8	6.4	
3.2 220	fire 8 9 2012	2	30	88	14	0.0	82.5	6.6	26.1	3	8.1	
2.7	fire	2	30	00	14	0.0	02.5	0.0	20.1	5	0.1	
221	9 9 2012	2	30	80	15	0.0	83.1	7.9	34.5	3.5	10	
3.7 222	fire 10 9 2012	2	29	74	15	1.1	59.5	4.7	8.2	0.8	4.6	
0.3	not fire	2										
223 1.2	11 9 2012 not fire	2	30	73	14	0.0	79.2	6.5	16.6	2.1	6.6	
224	12 9 2012	۷	31	72	14	0.0	84.2	8.3	25.2	3.8	9.1	
3.9	fire	2	20	40	4.0	0.0	00.6	44 5	22.4	0.4	12.4	
225 0.3	13 9 2012 fire	2	29	49	19	0.0	88.6	11.5	33.4	9.1	12.4	1
226	14 9 2012		28	81	15	0.0	84.6	12.6	41.5	4.3	14.3	
5.7 227	fire 15 9 2012	2	32	51	13	a a	88.7	16	50.2	6.9	17.8	
9.8	fire	2	52	J <u>.</u>	13	0.0	00.7	10	30.2	0.5	17.0	
228	16 9 2012	2	33	26	13	0.0	93.9	21.2	59.2	14.2	22.4	1
9.3	fire 17 9 2012	2	34	44	12	0.0	92.5	25.2	63.3	11.2	26.2	1
7.5	fire	2										
230 5.4	18 9 2012 fire	2	36	33	13	0.1	90.6	25.8	77.8	9	28.2	1
231	19 9 2012	2	29	41	8	0.1	83.9	24.9	86	2.7	28.9	
5.6	fire	2	2.4	F.0	12	0.2	70 5	10.7	00	2.4	24.4	
232	20 9 2012 not fire	2	34	58	13	0.2	/9.5	18.7	88	2.1	24.4	
233	21 9 2012		35	34	17	0.0	92.2	23.6	97.3	13.8	29.4	2
1.6 234	fire 22 9 2012	2	33	64	13	0 0	99 Q	26.1	106.3	7 1	32.4	1
3.7	fire	2	33	04	13	0.0	00.9	20.1	100.5	/.1	32.4	1
235	23 9 2012		35	56	14	0.0	89.0	29.4	115.6	7.5	36	1
5.2 236	fire 24 9 2012	2	26	49	6	2.0	61.3	11.9	28.1	0.6	11.9	
0.4	not fire	2										
237 3	25 9 2012 not fire	2	28	70	15	0.0	79.9	13.8	36.1	2.4	14.1	
238	26 9 2012	2	30	65	14	0.0	85.4	16	44.5	4.5	16.9	
6.5	fire	2										

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15
                                          4.4 41.1
                                                      6.5
                                                                   0.1
239
    27
           9 2012
                                 87
                                                                          6.2
                       2
0
     not fire
240 28
           9 2012
                             27
                                 87
                                     29
                                          0.5
                                              45.9
                                                      3.5
                                                             7.9
                                                                   0.4
                                                                          3.4
0.2
      not fire
                         2
241 29
           9 2012
                             24
                                 54
                                     18
                                          0.1 79.7
                                                      4.3
                                                            15.2
                                                                   1.7
                                                                          5.1
0.7
       not fire
                         2
            9 2012
242 30
                                          0.2 67.3
                                                      3.8
                                                            16.5
                             24 64
                                     15
                                                                   1.2
                                                                         4.8
0.5
     not fire
                         2
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Zmiana typów danych na wymagane typy danych dla odpowiednich funkcji do analizy

```
dane[['month','day','year','Temperature','RH','Ws']]=dane[['month','day','year',
        obkiekty=[noweobiekty for noweobiekty in dane.columns if dane[noweobiekty].dtype
In [ ]:
        for i in obkiekty:
            if i!='Classes':
                 dane[i]=dane[i].astype(float)
        Wyświetlenie danych po operacjach
```

```
In [ ]:
       dane.info()
```

<class 'pandas.core.frame.DataFrame'> RangeIndex: 243 entries, 0 to 242 Data columns (total 15 columns):

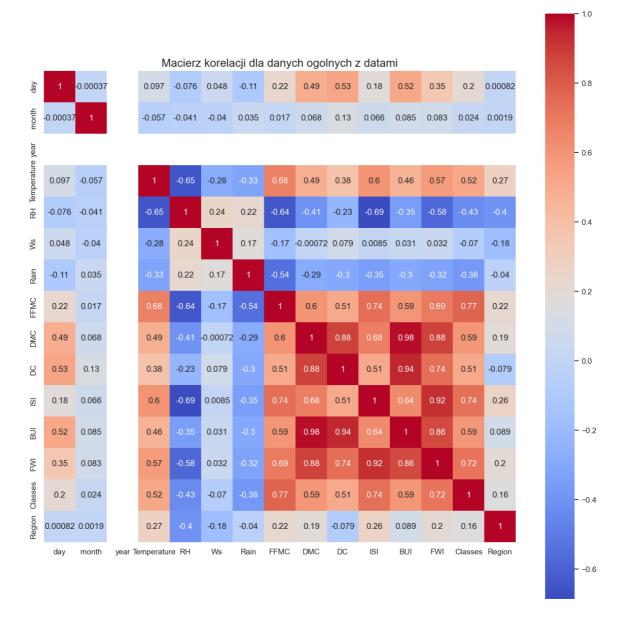
```
Column
#
                 Non-Null Count Dtype
0
     day
                  243 non-null
                                  int64
 1
    month
                  243 non-null
                                  int64
 2
                  243 non-null
                                  int64
    year
 3
    Temperature 243 non-null
                                  int64
 4
    RH
                  243 non-null
                                  int64
 5
    Ws
                  243 non-null
                                  int64
 6
    Rain
                  243 non-null
                                  float64
 7
    FFMC
                  243 non-null
                                  float64
                                  float64
 8
    DMC
                  243 non-null
 9
    DC
                                  float64
                  243 non-null
 10 ISI
                  243 non-null
                                  float64
                                  float64
 11 BUI
                  243 non-null
 12
    FWI
                  243 non-null
                                  float64
                                  object
13 Classes
                  243 non-null
                  243 non-null
14 Region
                                  int64
dtypes: float64(7), int64(7), object(1)
```

memory usage: 28.6+ KB

```
In [ ]: dane.describe()
```

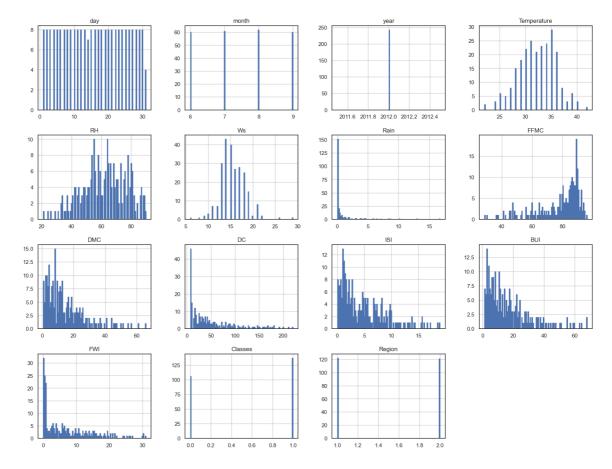
Out[ ]:		day	month	year	Temperature	RH	Ws	Rain	
	count	243.000000	243.000000	243.0	243.000000	243.000000	243.000000	243.000000	243.00
	mean	15.761317	7.502058	2012.0	32.152263	62.041152	15.493827	0.762963	77.84
	std	8.842552	1.114793	0.0	3.628039	14.828160	2.811385	2.003207	14.34
	min	1.000000	6.000000	2012.0	22.000000	21.000000	6.000000	0.000000	28.60
	25%	8.000000	7.000000	2012.0	30.000000	52.500000	14.000000	0.000000	71.8!
	50%	16.000000	8.000000	2012.0	32.000000	63.000000	15.000000	0.000000	83.30
	75%	23.000000	8.000000	2012.0	35.000000	73.500000	17.000000	0.500000	88.30
	max	31.000000	9.000000	2012.0	42.000000	90.000000	29.000000	16.800000	96.00
<									>
	Ustawı	nie klasyfika	cji dla klas						
In [ ]:	dane['	'Classes"].	value_coun	ts()					
Out[]:  In []:  Out[]:	dane.(  dane['  fire  not fi  Name:	ire ire ire ire Classes, c Classes = c 'Classes"].	lane.Classe	ts()	strip()				
	• fir	ot fire na 0 re na 1							
In [ ]:	dane[ '	'Classes']=	np.where(	dane['(	Classes']==	'not fire'	,0,1)		
In [ ]:	dane.0	Classes.val	.ue_counts(	)					
Out[ ]:	0 1 Name:	137 106 Classes, c etlenie kore		4					
In [ ]:	dane.d	corr(numeri	.c_only= <b>Tru</b>	e)					

**FFN** Out[]: day month year Temperature RH Ws Rain 1.000000 -0.000369 0.097227 -0.076034 0.047812 -0.112523 0.22495 day NaN month -0.000369 1.000000 NaN -0.056781 -0.041252 -0.039880 0.034822 0.01703 NaN NaN NaN NaN NaN NaN NaN Na year **Temperature** 0.097227 -0.056781 NaN 1.000000 -0.651400 -0.284510 -0.326492 0.67656 -0.076034 -0.041252 -0.651400 1.000000 0.244048 0.222356 -0.64487 RH NaN Ws 0.047812 -0.039880 NaN -0.284510 0.244048 1.000000 0.171506 -0.16654 Rain -0.112523 0.034822 NaN -0.326492 0.222356 0.171506 1.000000 -0.54390 0.224956 **FFMC** 0.017030 NaN 0.676568 -0.644873 -0.166548 -0.543906 1.00000 **DMC** 0.491514 0.067943 NaN 0.485687 -0.408519 -0.000721 -0.288773 0.60360 DC 0.527952 0.126511 NaN 0.376284 -0.226941 0.079135 -0.298023 0.50739 ISI 0.065608 NaN 0.180543 0.603871 -0.686667 0.008532 -0.347484 0.74000 **BUI** 0.517117 0.085073 NaN 0.459789 -0.353841 0.031438 -0.299852 0.59201 **FWI** 0.350781 0.082639 NaN 0.566670 -0.580957 0.032368 -0.324422 0.69113 **Classes** 0.202840 0.024004 NaN 0.516015 -0.432161 -0.069964 -0.379097 0.76949 Region 0.000821 0.001857 NaN 0.269555 -0.402682 -0.181160 -0.040013 0.22224 < In [ ]: sns.set(style="white") korelacja = dane.corr(numeric\_only=True) plt.figure(figsize=(15, 15)) sns.heatmap(korelacja, annot=True, cmap='coolwarm', square=True) plt.title('Macierz korelacji dla danych ogolnych z datami', fontsize=16) plt.show()



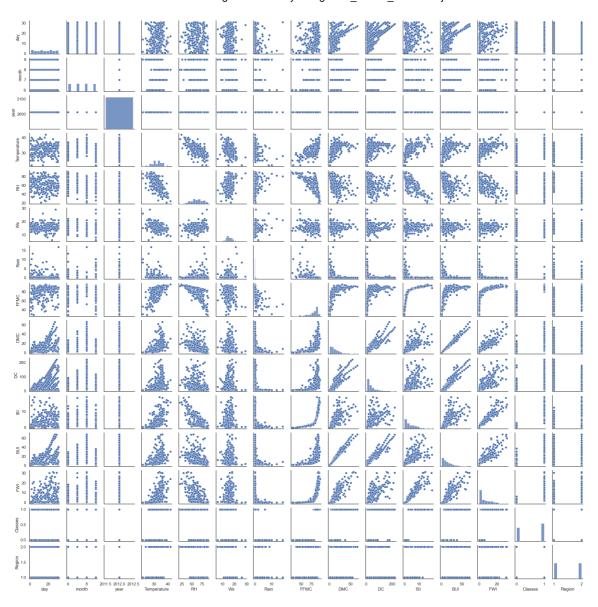
## Wyświetlenie histogramu

```
In [ ]: dane.hist(bins=100, figsize=(20, 15), ec='b')
plt.show()
```



Wykresy rozrzutów

Out[]: <seaborn.axisgrid.PairGrid at 0x1e963591a50>



Procent porżarów według klasy

```
In [ ]: procent = dane.Classes.value_counts(normalize=True)*100
procent
```

Out[]: 1 56.378601 0 43.621399

Name: Classes, dtype: float64

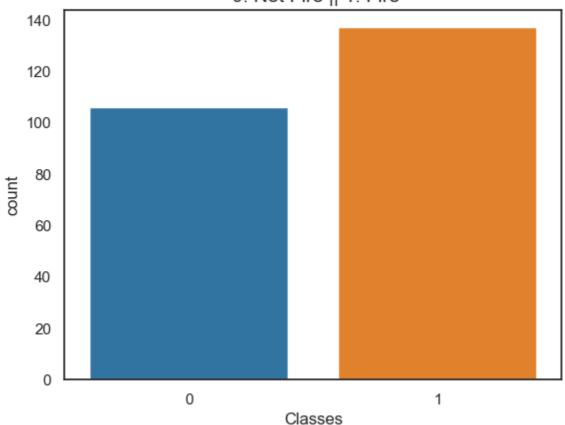
Analiza pożarów dla Algerii

- klasa 0 Not Fire
- klasa 1 Fire

```
In [ ]: sns.countplot(x='Classes', data=dane, palette="tab10")
  plt.title('Dane według klasy wykres słupkowy \n 0: Not Fire || 1: Fire', fontsiz
```

Out[]: Text(0.5, 1.0, 'Dane według klasy wykres słupkowy \n 0: Not Fire || 1: Fire')

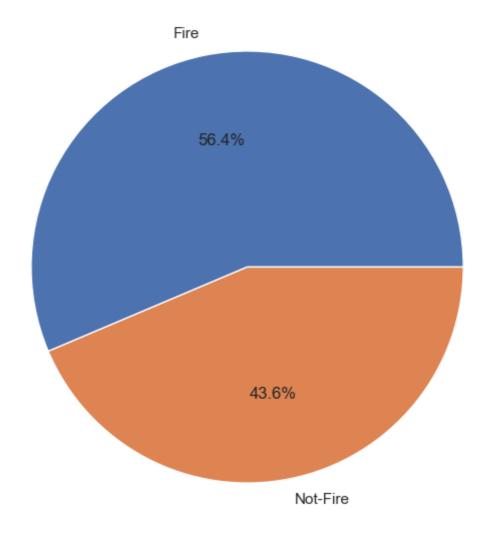
# Dane według klasy wykres słupkowy 0: Not Fire || 1: Fire



# Wykres kołowy

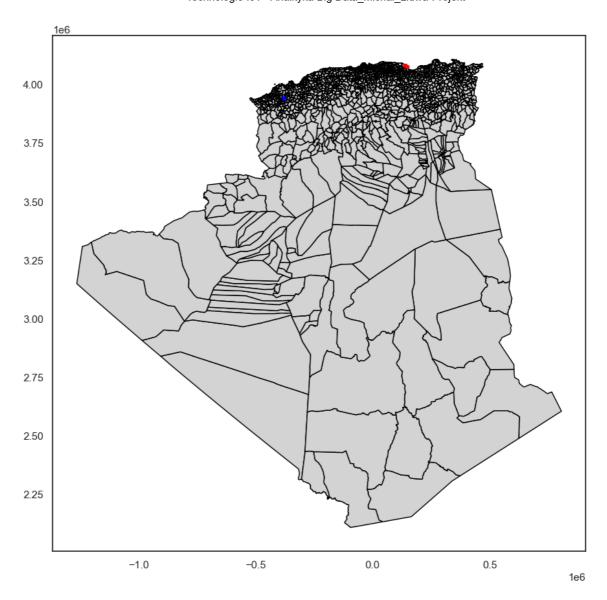
```
In []: classeslabels = ["Fire", "Not-Fire"]
    plt.figure(figsize=(12, 7))
    plt.pie(procent, labels=classeslabels, autopct='%1.1f%%')
    plt.title("Wykres kołowy", fontsize=15)
    plt.show()
```

# Wykres kołowy



Zaznaczenie regionów gdzie są pożary:

- Kolor czerowny Bejaia
- Kolor niebieski Sidi Bel Abbes



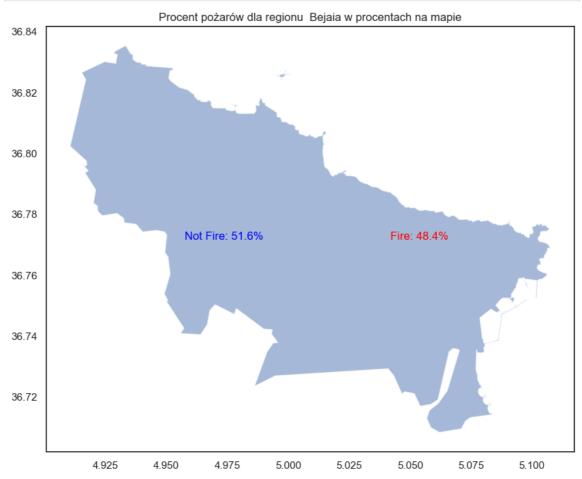
Analiza pożarów dla Algerii dla danego regionu

- klasa 0 Not Fire
- klasa 1 Fire

```
text = f"{etykietyklasy[0]}: {val:.1f}%"
    x_offset = -0.030
else:
    color = 'red'
    text = f"{etykietyklasy[1]}: {val:.1f}%"
    x_offset = 0.050
ax.annotate(text=text, xy=(
    row.geometry.centroid.x + x_offset, row.geometry.centroid.y), color=

plt.title('Procent pożarów dla regionu Bejaia w procentach na mapie')

plt.show()
```



```
In []: etykietyklasy = ['Not Fire', 'Fire']

mapa_sidi_bel_abbes = '.\dza_admbnda_unhcr2020_shp\dza_admbnda_adm2_unhcr_202001
danemapy = gpd.read_file(mapa_sidi_bel_abbes)

Sidi_bel_abbes = danemapy[danemapy['ADM2_EN'] == 'Sidi Bel Abbes']

Sidi_bel_abbes_pozar= dane[dane['Region'] == 2]

procentsidibel = Sidi_bel_abbes_pozar['Classes'].value_counts(normalize=True) *

fig, ax = plt.subplots(figsize=(10, 10))
Sidi_bel_abbes.plot(ax=ax, alpha=0.5)

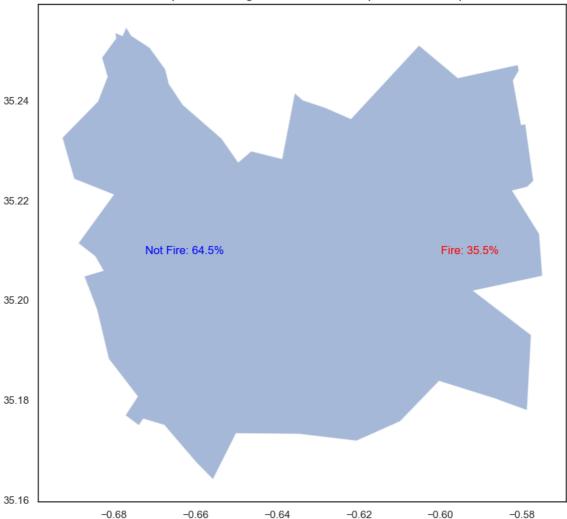
for idx, row in Sidi_bel_abbes.iterrows():
```

```
for i, val in enumerate(procentsidibel):
    if i == 0:
        color = 'blue'
        text = f"{etykietyklasy[0]}: {val:.1f}%"
        x_offset = -0.030
    else:
        color = 'red'
        text = f"{etykietyklasy[1]}: {val:.1f}%"
        x_offset = 0.040
    ax.annotate(text=text, xy=(
        row.geometry.centroid.x + x_offset, row.geometry.centroid.y), color=

plt.title('Procent pożarów dla regionu Sidi Bel Abbes w procentach na mapie')

plt.show()
```

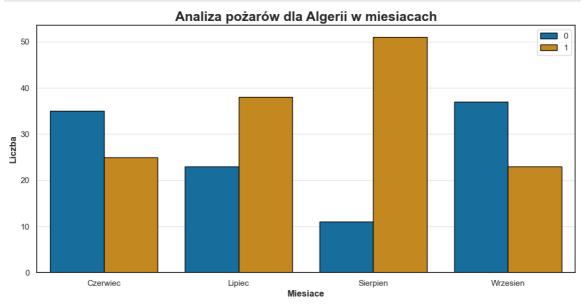


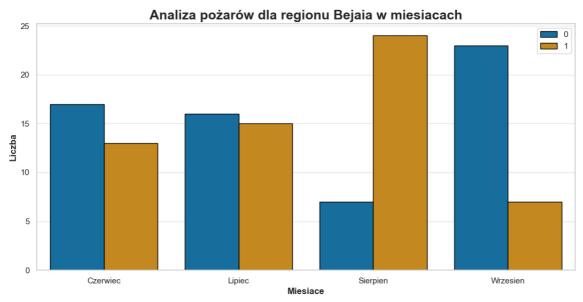


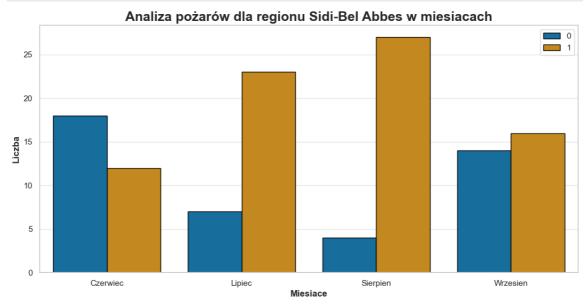
Analiza pożarów dla Algerii i dla danych regionów dla danego miesiąca

- klasa 0 Not Fire
- klasa 1 Fire

```
In [ ]: plt.subplots(figsize=(13, 6))
    sns.set_style('whitegrid')
    sns.countplot(x='month', hue='Classes', data=dane,
```







Analiza regresji

Usunięcie dnia meisiaca i roku na prztrzeby regresji analizy

```
In [ ]: dane = dane.drop(['day', 'month', 'year'], axis=1)
    dane.head(10)
```

Out[ ]:		Temperature	RH	Ws	Rain	FFMC	DMC	DC	ISI	BUI	FWI	Classes	Region
	0	29	57	18	0.0	65.7	3.4	7.6	1.3	3.4	0.5	0	1
	1	29	61	13	1.3	64.4	4.1	7.6	1.0	3.9	0.4	0	1
	2	26	82	22	13.1	47.1	2.5	7.1	0.3	2.7	0.1	0	1
	3	25	89	13	2.5	28.6	1.3	6.9	0.0	1.7	0.0	0	1
	4	27	77	16	0.0	64.8	3.0	14.2	1.2	3.9	0.5	0	1
	5	31	67	14	0.0	82.6	5.8	22.2	3.1	7.0	2.5	1	1
	6	33	54	13	0.0	88.2	9.9	30.5	6.4	10.9	7.2	1	1
	7	30	73	15	0.0	86.6	12.1	38.3	5.6	13.5	7.1	1	1
	8	25	88	13	0.2	52.9	7.9	38.8	0.4	10.5	0.3	0	1
	9	28	79	12	0.0	73.2	9.5	46.3	1.3	12.6	0.9	0	1

Podział zbioru danych na funkcję wejściową i wyjściową do analizy regresji

```
In []: x = dane.iloc[:,0:10]
         y= dane['FWI']
In [ ]:
        x.head()
            Temperature RH Ws Rain FFMC DMC
                                                    DC ISI BUI FWI
Out[]:
         0
                    29
                         57
                             18
                                  0.0
                                        65.7
                                               3.4
                                                    7.6 1.3
                                                             3.4
                                                                  0.5
         1
                    29
                        61
                             13
                                  1.3
                                        64.4
                                               4.1
                                                    7.6 1.0
                                                             3.9
                                                                  0.4
         2
                    26
                         82
                             22
                                 13.1
                                        47.1
                                               2.5
                                                    7.1 0.3
                                                             2.7
                                                                  0.1
         3
                    25
                         89
                             13
                                  2.5
                                        28.6
                                               1.3
                                                    6.9 0.0
                                                             1.7
                                                                  0.0
         4
                    27 77
                                  0.0
                                                             3.9
                                                                  0.5
                             16
                                        64.8
                                               3.0 14.2 1.2
In [ ]:
        y.head()
              0.5
Out[]: 0
         1
              0.4
         2
              0.1
              0.0
         3
              0.5
         Name: FWI, dtype: float64
         Podział zestawu danych na zbiór uczący i zbiór testowy
In [ ]: x_uczacy, x_testujacy, y_uczacy , y_testujacy = train_test_split(x, y, test_size
                                                                    random_state=0)
         x_uczacy.shape, x_testujacy.shape
Out[]: ((182, 10), (61, 10))
In [ ]: x_testujacy.columns
Out[]: Index(['Temperature', 'RH', 'Ws', 'Rain', 'FFMC', 'DMC', 'DC', 'ISI', 'BUI',
                 'FWI'],
               dtype='object')
         Korelacja uczących danych
In [ ]: x_uczacy.corr()
```

Out[ ]:			Tem	perature		RH	V	/s	Rair	n F	FMC	DMC	DC	
	Ten	nperatur	е	1.000000	-0.6573	325	-0.3570	16	-0.36594	1 0.68	4556	0.482965	0.349021	0.
		RI	H -(	0.657325	1.0000	000	0.26258	31	0.275592	2 -0.65	3649	-0.393893	-0.203883	-0.
		W	's -(	0.357016	0.2625	581	1.00000	00	0.20403	5 -0.22	6129	-0.010158	0.079699	-0.
		Rai	n -(	0.365941	0.275	592	0.20403	35	1.000000	0.58	9465	-0.300364	-0.302591	-0.
		FFM	c (	0.684556	-0.6536	649	-0.22612	29	-0.58946	5 1.00	0000	0.621958	0.528275	0.
		DM	c (	0.482965	-0.3938	893	-0.01015	8	-0.300364	4 0.62	1958	1.000000	0.884417	0.
		D	c (	0.349021	-0.2038	883	0.07969	9	-0.30259	1 0.52	8275	0.884417	1.000000	0.
		IS	SI (	0.618172	-0.7123	353	-0.01884	15	-0.347660	0.74	2079	0.680918	0.501412	1.
		BU	II (	0.447959	-0.3330	027	0.02368	30	-0.308258	3 0.60	6527	0.984222	0.951157	0.
		FW	/1	0.575406	-0.5942	299	0.01323	39	-0.326426	5 0.70	4563	0.882314	0.746551	0.
<														>
In [ ]:	kor sns	elacja	= x_uc ap(kore	ize=(12 czacy.co elacja,	orr()	=True	e, cmap	=р	lt.cm.CM	MRmap_r	າ)			
	Temperature	1	-0.66	-0.36	-0.37	0.6	8 0.4	18	0.35	0.62	0.45	0.58		1.0
	胚	-0.66	1	0.26	0.28	-0.6	65 -0.3	39	-0.2	-0.71	-0.33	-0.59		0.8
	Ws	-0.36	0.26	1	0.2	-0.2	23 -0.0	01	0.08	-0.019	0.024	0.013	-	0.6
	Rain	-0.37	0.28	0.2	1	-0.5	59 -0	.3	-0.3	-0.35	-0.31	-0.33	-	0.4
	FFMC	0.68	-0.65	-0.23	-0.59	1	0.6	62	0.53	0.74	0.61	0.7	_	0.2
	DMC	0.48	-0.39	-0.01	-0.3	0.6	2 1		0.88	0.68	0.98	0.88	_	0.0
	DC	0.35	-0.2	0.08	-0.3	0.5	3 0.8	38	1	0.5	0.95	0.75		
	ISI	0.62	-0.71	-0.019	-0.35	0.7	4 0.6	88	0.5	1	0.63	0.92		-0.2
	BUI	0.45	-0.33	0.024	-0.31	0.6	1 0.9	98	0.95	0.63	1	0.86	-	-0.4
	FWI	0.58	-0.59	0.013	-0.33	0.7	7 0.8	38	0.75	0.92	0.86	1	-	-0.6
	Т	emperature	RH	Ws	Rain	FFM	IC DN	IC	DC	ISI	BUI	FWI		

Analizując wyniki korelacji, można zauważyć, że:

- Temperatura ma silną dodatnią korelację z FFMC, a także pozytywną korelację z FWI, BUI i ISI. Oznacza to, że wyższa temperatura zwiększa poziom wysuszonych paliw, co z kolei prowadzi do wzrostu zagrożenia pożarowego.
- Wilgotność względna (RH) ma silną negatywną korelację z FFMC oraz negatywną korelację z FWI, BUI i ISI. Oznacza to, że wyższa wilgotność powietrza zmniejsza poziom wysuszonych paliw i obniża zagrożenie pożarowe.
- Prędkość wiatru (Ws) ma słabą dodatnią korelację z FFMC, a także słabą dodatnią korelację z FWI, BUI i ISI. Oznacza to, że wyższa prędkość wiatru może zwiększyć rozprzestrzenianie się pożaru.
- Opady deszczu mają negatywną korelację z FFMC, FWI, BUI i ISI. Oznacza to, że opady deszczu mogą zmniejszyć poziom wysuszonych paliw i obniżyć zagrożenie pożarowe.
- Składowe FWI (BUI, ISI, FFMC, DMC i DC) są ze sobą silnie skorelowane, co jest
  zrozumiałe, biorąc pod uwagę, że FWI jest złożonym wskaźnikiem, który uwzględnia
  wpływ wszystkich tych składowych na zagrożenie pożarowe. Warto zauważyć, że
  DMC i DC mają silną pozytywną korelację między sobą, co wskazuje na to, że wyższy
  poziom wilgoci w glebie wpływa na zwiększenie poziomu wilgoci w glebie
  organicznej, co z kolei zmniejsza zagrożenie pożarowe.

Sprawdzanie korelacji dla niezależnych cech, a cechy o korelacji większej niż 0,7 gdzie reszta zostanie usunieta z analizy

```
In [ ]: def korelacjafunkcja(dane, prog):
            kolumna korelacji = set()
            kolumna_macierzy = dane.corr()
            for i in range(len(kolumna_macierzy.columns)):
                for j in range(i):
                    if abs(kolumna_macierzy.iloc[i, j]) > prog:
                         colname = kolumna macierzy.columns[i]
                         kolumna korelacji.add(colname)
            return kolumna korelacji
In [ ]: nowakorelacja = korelacjafunkcja(x uczacy, 0.7)
        nowakorelacja
Out[]: {'BUI', 'DC', 'FWI', 'ISI'}
        Usówanie 4 atrybutów ze wzgledu na korleacje wyzsza niz 0,7
In [ ]: x uczacy.drop(nowakorelacja, axis=1, inplace=True)
        x_testujacy.drop(nowakorelacja, axis=1, inplace=True)
        x uczacy.shape
        x_testujacy.shape
Out[]: (61, 6)
```

Skalowanie

```
In [ ]: def skalowaniefunkcja(x_uczacy, x_testujacy):
             skalowanie = StandardScaler()
             x_uczacy_skalowane = skalowanie.fit_transform(x_uczacy)
             x_testujacy_skalowane = skalowanie.transform(x_testujacy)
             return x_uczacy_skalowane, x_testujacy_skalowane
In [ ]: x_uczacy_skalowane, x_testujacy_skalowane = skalowaniefunkcja(x_uczacy, x_testuj
In [ ]: fig, (ax1, ax2) = plt.subplots(1, 2, figsize=(15, 5))
        sns.boxplot(data=x_uczacy, ax=ax1)
        ax1.set_title('Dane uczace przed skalowaniem')
        sns.boxplot(data=x_uczacy_skalowane, ax=ax2)
        ax2.set_title('Dane uczace po skalowaniu')
Out[]: Text(0.5, 1.0, 'Dane uczace po skalowaniu')
                    Dane uczace przed skalowaniem
                                                                 Dane uczace po skalowaniu
         100
         80
         60
         40
                                                                     2
           Temperature
                   RH
                                     FFMC
                                           DMC
        Regresja liniowa
        Regresjaliniowa = LinearRegression()
        Regresjaliniowa.fit(x_uczacy_skalowane, y_uczacy)
Out[]: ▼ LinearRegression
        LinearRegression()
In [ ]: |
        print('Przechwycenie wynosi :',Regresjaliniowa.intercept_)
        print('Współczynnik wynosi :',Regresjaliniowa.coef)
        Przechwycenie wynosi : 7.558791208791209
        Współczynnik wynosi : [ 0.36394299 -1.99797066 0.98619421 0.04636838 0.80703
        533 5.44395047]
In [ ]: print("Uczace dane wynik:",Regresjaliniowa.score(x_uczacy_skalowane, y_uczacy))
        print("Testowe dane wynik:",Regresjaliniowa.score(x_testujacy_skalowane,y_testuj
        Uczace dane wynik: 0.8671797758215145
        Testowe dane wynik: 0.7064857305909149
        Regresjaliniowa_predykcja = Regresjaliniowa.predict(x_testujacy_skalowane)
In [ ]:
        Regresjaliniowa predykcja
```

```
Out[]: array([ 6.71133901, 12.02490235, 7.17708272, 8.24813881, 5.87107049, 10.06783722, -1.57757075, 9.49762004, 6.91005123, 11.61699016, 1.59431776, 13.00464249, 10.62115882, 12.84924636, 2.76686137, -0.28105695, 5.56265496, 5.29475405, 2.8722131, -2.08125537, 14.70243078, 5.2585157, 11.12180353, -1.61398266, 2.36852748, 5.45039685, 10.68723643, -0.14835576, 0.73216072, 2.91307288, 11.58970348, 0.80835466, -1.68692435, 19.3097082, 2.70799081, 2.90471917, 4.61345951, 20.52842245, 26.80883138, 6.4163819, 6.1327361, 3.2544518, -4.1397093, 3.91659235, 1.16929796, -5.4031485, 7.39875906, 4.74298501, -4.2341344, 17.30309118, 3.21502256, 8.83942816, -2.46778223, 0.69332504, 4.5829139, 1.50799021, 10.54082105, 7.88725824, 8.47179454, 17.63579458, 1.8425123])
```

Out[ ]:		Aktualny przychod	Predykcja przychodu
	110	9.7	6.711339
	150	7.2	12.024902
	37	8.0	7.177083
	75	6.3	8.248139
	109	7.7	5.871070
	•••		
	179	10.9	10.540821
	160	3.1	7.887258
	159	3.0	8.471795
	170	17.3	17.635795
	221	3.7	1.842512

61 rows × 2 columns

Współczynnik determinacji: 0.7064857305909149

#### Regresja w formie modelu OLS

```
In [ ]: x = sm.add_constant(x)
    model = sm.OLS(y, x)
    results = model.fit()
    print(results.summary())
```

### OLS Regression Results

===========	:==========		==========
Dep. Variable:	FWI	R-squared:	1.000
Model:	OLS	Adj. R-squared:	1.000
Method:	Least Squares	F-statistic:	2.200e+30
Date:	Mon, 05 Jun 2023	<pre>Prob (F-statistic):</pre>	0.00
Time:	11:33:52	Log-Likelihood:	7274.7
No. Observations:	243	AIC:	-1.453e+04
Df Residuals:	232	BIC:	-1.449e+04
Df Model:	10		
	and the second s		

Covariance Type: nonrobust

========	=========	========	========			========
	coef	std err	t	P> t	[0.025	0.975]
const	2.914e-15	3.16e-14	0.092	0.927	-5.93e-14	6.52e-14
Temperature	e -7.199e-16	6.65e-16	-1.083	0.280	-2.03e-15	5.9e-16
RH	9.008e-16	1.77e-16	5.081	0.000	5.51e-16	1.25e-15
Ws	-2.602e-16	6.42e-16	-0.406	0.685	-1.52e-15	1e-15
Rain	2.281e-16	9.83e-16	0.232	0.817	-1.71e-15	2.16e-15
FFMC	-2.299e-16	2.24e-16	-1.027	0.306	-6.71e-16	2.11e-16
DMC	4.009e-16	1.12e-15	0.358	0.720	-1.8e-15	2.6e-15
DC	2.047e-16	1.65e-16	1.240	0.216	-1.21e-16	5.3e-16
ISI	-9.168e-16	1.82e-15	-0.502	0.616	-4.51e-15	2.68e-15
BUI	-7.277e-16	1.46e-15	-0.499	0.618	-3.6e-15	2.14e-15
FWI	1.0000	1.36e-15	7.38e+14	0.000	1.000	1.000
	========	 2	EEEEEEEEE		========	0.200
Omnibus:				-Watson:		0.399
Prob(Omnibu	us):		•	Bera (JB):		3.653
Skew:		0.	291 Prob(JE	3):		0.161
Kurtosis:		2.	848 Cond. N	No.		2.45e+03

#### Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

\_\_\_\_\_\_

[2] The condition number is large, 2.45e+03. This might indicate that there are strong multicollinearity or other numerical problems.

Przy regresji OLS znajduje sie 10 zmiennych

R-kwadrat wynosi 0,86, co oznacza, że 86% zmienności zmiennej zależnej Classes może być wyjaśnione przez zmienne niezależne w tym modelu. Współczynnik R-kwadrat skorygowany wynosi 0,854, co oznacza, że model jest dobrze dopasowany do danych.

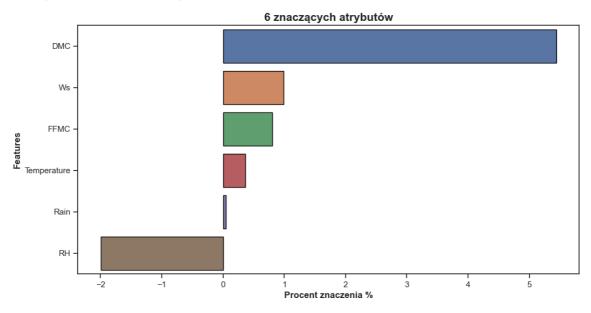
Każda z zmiennych niezależnych ma swój współczynnik. Współczynnik jest estymowanym przeciętnym wpływem danej zmiennej niezależnej na zmienną zależną przy założeniu, że wszystkie inne zmienne niezależne są stałe. Współczynniki dla zmiennych Temperature, RH, Ws, FFMC, DMC i ISI są istotne statystycznie, ponieważ mają wartości p mniejsze niż 0,05. Oznacza to, że zmienne te mają istotny wpływ na zmienną zależną Classes.

Zmienne Rain, DC, BUI i FWI nie są istotne statystycznie, ponieważ mają wartości p większe niż 0,05. Oznacza to, że zmienne te nie mają istotnego wpływu na zmienną zależną Classes w tym modelu.

Najbardziej znaczące atrybuty

#### Out[ ]: Atrybuty Znaczenie 5 DMC 5.443950 2 Ws 0.986194 **FFMC** 0.807035 4 Temperature 0.363943 3 Rain 0.046368 RH -1.997971

#### Out[]: Text(0, 0.5, 'Features')



- (DMC) Indeks Kodu wilgotności Duffa Wynosi ponad 5%
- (Ws) Prędkość wiatru Wynosi troche ponad 1%
- (FFMC) Indeks Dokładnego kodu wilgotności paliwa prawie 1 %

- (Temperatue) Temperatura w południe maksymalna wynosi prawie 0.4 %
- (Rain) Całkowity dzień opadów wynosi troche niz 0 %
- (RH) Wilgotność względna wynosi prawie -2%

### Klasyfikacja

```
dane.head()
In [ ]:
                                 Ws
                                             FFMC DMC
                                                             DC
                                                                  ISI
                                                                       BUI
                                                                            FWI Classes
                                                                                           Region
Out[]:
              Temperature
                            RH
                                       Rain
          0
                        29
                             57
                                  18
                                        0.0
                                               65.7
                                                       3.4
                                                             7.6
                                                                  1.3
                                                                        3.4
                                                                              0.5
                                                                                        0
                                                                                                 1
           1
                        29
                             61
                                  13
                                        1.3
                                               64.4
                                                             7.6 1.0
                                                                        3.9
                                                                              0.4
                                                                                        0
                                                                                                 1
                                                       4.1
          2
                        26
                             82
                                  22
                                               47.1
                                                             7.1 0.3
                                                                        2.7
                                                                              0.1
                                                                                        0
                                                                                                  1
                                       13.1
                                                       2.5
          3
                                                                 0.0
                                                                                        0
                        25
                             89
                                  13
                                        2.5
                                               28.6
                                                       1.3
                                                             6.9
                                                                        1.7
                                                                              0.0
                                                                                                  1
           4
                                                                        3.9
                                                                              0.5
                                                                                        0
                                                                                                  1
                        27
                             77
                                  16
                                        0.0
                                               64.8
                                                       3.0
                                                            14.2
                                                                 1.2
          x = dane.iloc[:, 0:10]
In [ ]:
          y = dane['Classes']
          x.head(10)
In [ ]:
Out[]:
                                 Ws
                                       Rain
                                             FFMC DMC
                                                             DC
                                                                  ISI
                                                                       BUI
                                                                             FWI
              Temperature
                            RH
          0
                        29
                             57
                                  18
                                        0.0
                                               65.7
                                                       3.4
                                                             7.6
                                                                 1.3
                                                                        3.4
                                                                              0.5
          1
                        29
                             61
                                  13
                                        1.3
                                               64.4
                                                       4.1
                                                             7.6 1.0
                                                                        3.9
                                                                              0.4
          2
                                                                  0.3
                                                                              0.1
                        26
                             82
                                  22
                                       13.1
                                               47.1
                                                       2.5
                                                             7.1
                                                                        2.7
          3
                        25
                             89
                                  13
                                        2.5
                                               28.6
                                                       1.3
                                                             6.9
                                                                 0.0
                                                                        1.7
                                                                              0.0
           4
                        27
                             77
                                               64.8
                                                            14.2
                                                                  1.2
                                                                        3.9
                                                                              0.5
                                  16
                                        0.0
                                                       3.0
          5
                                                                              2.5
                        31
                             67
                                  14
                                        0.0
                                               82.6
                                                       5.8
                                                            22.2
                                                                 3.1
                                                                        7.0
           6
                                                                              7.2
                        33
                             54
                                  13
                                        0.0
                                               88.2
                                                       9.9
                                                            30.5
                                                                 6.4
                                                                       10.9
          7
                                        0.0
                                                                              7.1
                        30
                             73
                                  15
                                               86.6
                                                      12.1
                                                            38.3 5.6
                                                                      13.5
          8
                        25
                             88
                                  13
                                        0.2
                                               52.9
                                                       7.9
                                                            38.8
                                                                 0.4
                                                                       10.5
                                                                              0.3
           9
                             79
                                        0.0
                                                                              0.9
                        28
                                  12
                                               73.2
                                                       9.5
                                                           46.3 1.3
                                                                      12.6
          y.head(10)
In [ ]:
Out[]:
          0
                 0
          1
                 0
          2
                 0
          3
                 0
          4
                 0
          5
                 1
          6
                 1
          7
                 1
          8
                 0
          9
                 0
          Name: Classes, dtype: int32
```

```
In [ ]: x_uczacy, x_testujacy, y_uczacy, y_testujacy = train_test_split(
            x, y, test_size=0.3, random_state=0)
        x_uczacy.shape, x_testujacy.shape
Out[]: ((170, 10), (73, 10))
In [ ]: x_uczacy.columns
Out[]: Index(['Temperature', 'RH', 'Ws', 'Rain', 'FFMC', 'DMC', 'DC', 'ISI', 'BUI',
               'FWI'],
              dtype='object')
In [ ]: x_testujacy.columns
Out[]: Index(['Temperature', 'RH', 'Ws', 'Rain', 'FFMC', 'DMC', 'DC', 'ISI', 'BUI',
               'FWI'],
              dtype='object')
In [ ]: korelacjanowadrzewo = korelacjafunkcja(x uczacy, 0.7)
        korelacjanowadrzewo
Out[]: {'BUI', 'DC', 'FWI', 'ISI'}
In [ ]: x uczacy.drop(korelacjanowadrzewo, axis=1, inplace=True)
        x_testujacy.drop(korelacjanowadrzewo, axis=1, inplace=True)
        x_uczacy.shape, x_testujacy.shape
Out[]: ((170, 6), (73, 6))
In [ ]: x_uczacy_skalowane, x_testujacy_skalowane = skalowaniefunkcja(x_uczacy, x_testuj
        Drzewo dezycyjne
In [ ]: Drzewodezycyjne = DecisionTreeClassifier()
        Drzewodezycyjne.fit(x uczacy skalowane,y uczacy)
Out[]: • DecisionTreeClassifier
        DecisionTreeClassifier()
In [ ]: Drzewodezycyjne predykcja = Drzewodezycyjne.predict(x testujacy skalowane)
        Drzewodezycyjne_predykcja
Out[]: array([1, 1, 1, 1, 1, 1, 0, 1, 1, 1, 0, 1, 1, 1, 0, 0, 0, 0, 0, 1, 0, 1, 1,
               0, 0, 1, 0, 1, 0, 0, 0, 1, 0, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 0, 0,
               0, 0, 1, 1, 0, 0, 1, 1, 0, 1, 1, 0, 1, 1, 1, 1, 1, 1, 0, 1, 1, 1,
               0, 0, 1, 1, 1, 0, 1])
In [ ]: Aktualna_predykcja = pd.DataFrame(
            {'Aktualny przychod ': y_testujacy, 'Predykcjonowany przychod': Drzewodezycy
        Aktualna predykcja
```

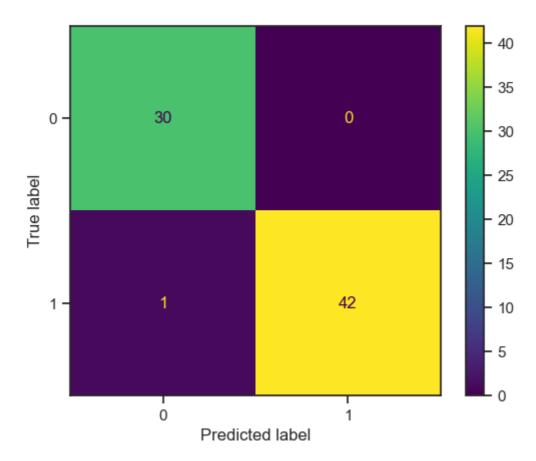
Out[ ]:		Aktualny przychod	Predykcjonowany przychod
	110	1	1
	150	1	1
	37	1	1
	75	1	1
	109	1	1
	•••		
	89	1	1
	212	1	1
	74	1	1
	4	0	0
	108	1	1

73 rows × 2 columns

Decision Tree

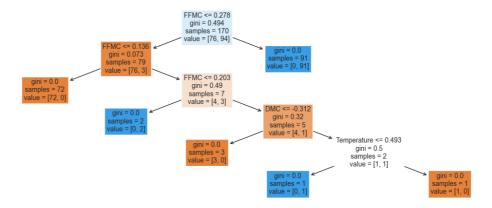
Accuracy Score value: 0.9863

	precision	recall	f1-score	support
0	0.97	1.00	0.98	30
1	1.00	0.98	0.99	43
accuracy			0.99	73
macro avg	0.98	0.99	0.99	73
weighted avg	0.99	0.99	0.99	73



```
|--- FFMC <= 0.28
    --- FFMC <= 0.14
        |--- class: 0
        FFMC > 0.14
          -- FFMC <= 0.20
            |--- class: 1
         --- FFMC > 0.20
            |--- DMC <= -0.31
                |--- class: 0
            |--- DMC > -0.31
                |--- Temperature <= 0.49
                    |--- class: 1
                |--- Temperature > 0.49
                    |--- class: 0
|--- FFMC > 0.28
    |--- class: 1
```

```
In [ ]: plt.figure(figsize=(15, 5))
    tree.plot_tree(Drzewodezycyjne, feature_names=x_uczacy.columns, filled=True)
    plt.show()
```



Jeśli FFMC jest mniejsze lub równe 0,28, drzewo rozgałęzia się ponownie na atrybucie FFMC. Jeśli FFMC jest mniejsze lub równe 0,14, klasa wynosi 0. Jeśli FFMC jest większe niż 0,14, ale mniejsze lub równe 0,20, klasa wynosi 1. Jeśli FFMC jest większe niż 0,20, drzewo rozgałęzia się na atrybucie DMC. Jeśli DMC jest mniejsze lub równe -0,31, klasa wynosi 0. Jeśli DMC jest większe niż -0,31, drzewo rozgałęzia się na atrybucie Temperatura. Jeśli Temperatura jest mniejsza lub równa 0,49, klasa wynosi 1. Jeśli Temperatura jest większa niż 0,49, klasa wynosi 0. Jeśli FFMC jest większe niż 0.28, klasa wynosi 1.