GDF - types

Existing types of GDF

AIR QUALITY

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***NO*** – vector of real numbers specifying concentration of nitrogen oxide
- ***NO_2*** –vector of real numbers specifying concentration of nitrogen dioxide
- ***NO_x*** –vector of real numbers specifying concentration of nitrogen oxides
- ***CO*** – vector of real numbers specifying concentration of carbon monoxide
- ***PM10*** – vector of real numbers specifying concentration of particulate matter PM10
- ***O_3*** – vector of real numbers specifying concentration of ozone
- ***CO_2*** – vector of real numbers specifying concentration of carbon dioxide
- ***CH_4*** – vector of real numbers specifying concentration of methane
- ***NMHC*** – vector of real numbers specifying concentration of non-methane hydrocarbons
- ***THC*** – vector of real numbers specifying concentration of total hydrocarbons

Field details

FieldDescription

- ***Date*** – Time of measurement
- ***NO*** – Nitrogen oxide
- ***NO_2*** – Nitrogen dioxide
- ***NO_x*** – Nitrogen oxides
- ***CO*** – Carbon monoxide
- ***PM10*** – Particulate matter PM10 (particles that are 10 micrometers in diameter or smaller)
- ***O_3*** – Ozone
- ***CO_2*** – Carbon dioxide
- ***CH_4*** – Methane
- ***NMHC*** – Non-methane hydrocarbons
- ***THC*** – Total hydrocarbons

FieldType

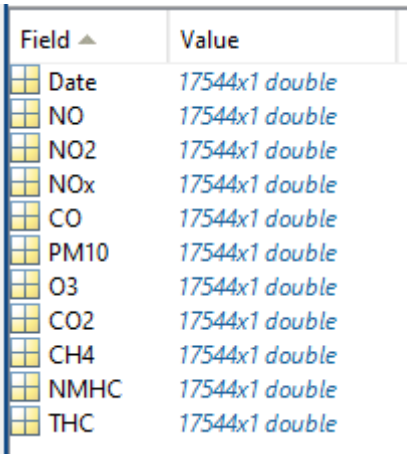
- ***Date*** – 5
- ***NO*** – 34
- ***NO_2*** – 34
- ***NO_x*** – 34
- ***CO*** – 44
- ***PM10*** – 34
- ***O_3*** – 34
- ***CO_2*** – 44
- ***CH_4*** – 24
- ***NMHC*** – 16
- ***THC*** – 26

FieldUnit

- ***Date*** – datenum
- ***NO*** – ppb
- ***NO_2*** – ppb
- ***NO_x*** – ppb
- ***CO*** – ppb
- ***PM10*** – ug/m^3
- ***O_3*** – ppb
- ***CO_2*** – ppm
- ***CH_4*** – ppm
- ***NMHC*** – ppmC
- ***THC*** – ppmC

Files associated with format:

GDF_WYSIN_air_quality [Air Quality]



Field	Value
Date	17544x1 double
NO	17544x1 double
NO2	17544x1 double
NOx	17544x1 double
CO	17544x1 double
PM10	17544x1 double
O3	17544x1 double
CO2	17544x1 double
CH4	17544x1 double
NMHC	17544x1 double
THC	17544x1 double

AIR STATIONS

Data details

'd' structure contains fields:

- ***Station_codename*** – vector of char type specifying code name of the measurement device
- ***Lat*** – vector of real numbers specifying latitude of logger
- ***Long*** – vector of real numbers specifying longitude of logger

optional:

- ***Description*** – vector of char type specifying description of the logger
- ***Elevation*** – vector of real numbers containing elevation above sea level of the logger
- ***Depth*** – vector of real numbers specifying depth of the logger
- ***Sensor_type*** – vector of char type specifying type or name of the logger
- ***Sample_rate*** – vector of char type specifying sample rate of the measurements
- ***Parameter_unit*** – vector of char type specifying measurements parameter information
- ***Start*** – vector of real numbers containing 'matlab' time of start operation of the logger
- ***End*** – vector of real numbers containing 'matlab' time of end operation of the logger

Field details

FieldDescription

- ***Station_codename*** – Code name of the station
- ***Lat*** – Latitude of the station
- ***Long*** – Longitude of the station

optional:

- ***Description*** – Description of the station
- ***Elevation*** – Elevation of the station
- ***Depth*** – Depth of the station
- ***Sensor_type*** – Type of the sensor
- ***Sample_rate*** – Sample rate
- ***Parameter_unit*** – Unit of the parameter
- ***Start*** – Start time of data recording
- ***End*** – End time of data recording

FieldType

- ***Station_codename*** – 3
- ***Lat*** – 124
- ***Long*** –134

optional:

- ***Description*** – 3
- ***Elevation*** – 4

- ***Depth*** – 114
- ***Sensor_type*** – 3
- ***Sample_rate*** – 3
- ***Parameter_unit*** – 3
- ***Start*** – 5
- ***End*** – 5

FieldUnit

- ***Station_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Description*** – char
- ***Elevation*** – m
- ***Depth*** – km
- ***Sensor_type*** – char
- ***Sample_rate*** – char
- ***Parameter_unit*** – char
- ***Start*** – datenum
- ***End*** – datenum

Files associated with format:

- *GDF_WYSIN_air_stations [Air Stations]*

Fields	Station_codename	Description	Lat	Long	Depth	Sensor_type	Sample_rate	Parameter_unit	Start	End
1	'Stary_Wiec'	'Air monitorin...	54.0895	18.3224	0.1710	'PM10 measur...	'1/h, apart fro...	'Nitrogen oxide: [...	736177	7.3712e+0
2	'GW1 barometric log...	'Barometric lo...	54.0982	18.3031	-3.0000e-04	'Baro-Diver pro...	'4/1h'	'Pressure: [cmH2...	7.3631e+05	7.3712e+0

ATMOSPHERIC PRESSURE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Atmospheric_pressure*** – vector of real numbers specifying atmospheric pressure
- ***Air_temperature*** –vector of real numbers specifying air temperature

Field details

FieldDescription

- ***Date*** – Time of measurement
- ***Atmospheric_pressure*** – Atmospheric pressure
- ***Air_temperature*** – Air temperature

FieldType

- ***Date*** – 5
- ***Atmospheric_pressure*** – 24
- ***Air_temperature*** – 122

FieldUnit

- ***Date*** – datenum
- ***Atmospheric_pressure*** – mH2O
- ***Air_temperature*** – Celcius deg

Files associated with format:

GDF_WYSIN_atmospheric_pressure [Atmospheric Pressure]

Field	Value
Date	77676x1 double
Atmospheric_pressure	77676x1 double
Air_temperature	77676x1 double

BLAST INFORMATION

Data details

'd' structure contains fields:

- ***Blast target*** – vector of char type containing the name of mine area
- ***Date*** – vector of real numbers containing 'matlab' time
- ***Lat*** –real number of latitude coordinate
- ***Long*** – real number of longitude coordinate
- ***Elevation*** – real number of elevation

Field details

FieldDescription

- ***Blast_target*** – Blast target
- ***Date*** – Date of the blast
- ***Lat*** – Latitude of the blast
- ***Long*** – Longitude of the blast
- ***Elevation*** – Elevation of the blast

FieldType

- ***Blast target*** – 3
- ***Date*** – 5
- ***Lat*** –24
- ***Long*** –24
- ***Elevation*** – 4

FieldUnit

- ***Blast target*** – char
- ***Date*** – datenum
- ***Lat*** –deg
- ***Long*** – deg
- ***Elevation*** – m

Files associated with format:

GDF_Pyhasalmi_blast_information [Blast Information]

Fields	Blast_target	Lat	Long	Elevation	Date
1	'14D6-7'	63.6560	26.0413	-1.1020e+03	7.3441e+05
2	'7A3P'	63.6546	26.0393	-1.1895e+03	7.3442e+05
3	'10E10-11'	63.6561	26.0394	-1.0020e+03	7.3442e+05
4	'15D4-5'	63.6560	26.0417	-1.1520e+03	7.3442e+05
5	'7E 1-2'	63.6560	26.0384	-1.2520e+03	7.3442e+05
6	'7C5-6'	63.6553	26.0388	-1.1270e+03	7.3442e+05
7	'10E10-11'	63.6561	26.0394	-1.0020e+03	7.3442e+05
8	'14D6-7'	63.6560	26.0413	-1.0020e+03	7.3442e+05
9	'7E1-2'	63.6560	26.0384	-1.2270e+03	7.3442e+05
10	'10E10-11'	63.6561	26.0394	-1.0020e+03	7.3442e+05

BOTTOMHOLE PRESSURE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Bottomhole_pressure*** – vector of real numbers containing the bottomhole pressure

Field details

FieldDescription

- **Date** – Time of fluid injection
- ***Bottomhole_pressure*** – Bottomhole pressure

FieldType

- **Date** – 5
- ***Bottomhole_pressure*** – 34

FieldUnit

- **Date** – datenum
- ***Bottomhole_pressure*** – MPa

Files associated with format:

GDF_PREESEHALL_Bottomhole_Pressure [Bottomhole Pressure]

Field	Value
Date	*7726x1 double*
Bottomhole_pressure	*7726x1 double*

CARTESIAN STATION

For specific networks, such as laboratory/underground-laboratory networks, the GDF file can be used to plot the station locations when cartesian coordinates (X, Y, Z) are provided instead of geographical coordinates.

Data details

'd' structure contains fields:

- ***Station_codename*** – vector of char type specifying code name of the station
- ***X*** – vector of real numbers containing local X coordinate of the station
- ***Y*** – vector of real numbers containing local Y coordinate of the station
- ***Z*** – vector of real numbers containing local Z coordinate of the station

optional:

- ***Description*** – vector of char type specifying description of the station
- ***Elevation*** – vector of real numbers containing elevation above sea level of the station
- ***Depth*** – vector of real numbers specifying depth of the station
- ***Sensor_type*** – vector of char type specifying type or name of the station
- ***Sample_rate*** – vector of char type specifying sample rate of the measurements
- ***Parameter_unit*** – vector of char type specifying measurements parameter information
- ***Start*** – vector of real numbers containing 'matlab' time of start operation of the station
- ***End*** – vector of real numbers containing 'matlab' time of end operation of the station
- ***VX*** – unit vector of sensor orientation in 3D space - X direction
- ***VY*** – unit vector of sensor orientation in 3D space - Y direction
- ***VZ*** – unit vector of sensor orientation in 3D space - Z direction
- ***Lat*** – real number specifying the latitude of the laboratory location
- ***Long*** – real number specifying the longitude of the laboratory location

Field details

FieldDescription

- ***Station_codename*** – Code name of the station
- ***X*** – vector of real numbers containing local X coordinate of the station
- ***Y*** – vector of real numbers containing local Y coordinate of the station
- ***Z*** – vector of real numbers containing local Z coordinate of the station

optional:

- ***Description*** – Description of the station
- ***Elevation*** – Elevation of the station
- ***Depth-*** Depth of the station
- ***Sensor_type*** – Type of the sensor
- ***Sample_rate*** – Sample rate
- ***Parameter_unit*** – Unit of the parameter

- ***Start*** – Start time of data recording
- ***End*** – End time of data recording
- ***VX*** – unit vector - X direction
- ***VY*** – unit vector - Y direction
- ***VZ*** – unit vector - Z direction
- ***Lat*** – real number specifying the latitude of the laboratory location
- ***Long*** - real number specifying the longitude of the laboratory location

FieldType

- ***Station_codename*** – 3
- ***X*** – 242
- ***Y*** – 242
- ***Z*** – 242

optional:

- ***Description*** – 3
- ***Elevation*** – 4
- ***Depth*** – 114
- ***Sensor_type*** – 3
- ***Sample_rate*** – 3
- ***Parameter_unit*** – 3
- ***Start*** – 5
- ***End*** – 5
- ***VX*** – 114
- ***VY*** – 114
- ***VZ*** – 114
- ***Lat*** – 124
- ***Long*** –134

FieldUnit

- ***Station_codename*** – char
- ***X*** – m
- ***Y*** – m
- ***Z*** – m

optional:

- ***Description*** – char
- ***Elevation*** – m
- ***Depth*** – km
- ***Sensor_type*** – char
- ***Sample_rate*** – char
- ***Parameter_unit*** – char
- ***Start*** – datenum
- ***End*** – datenum
- ***VX*** – unit vector
- ***VY*** – unit vector
- ***VZ*** – unit vector
- ***Lat*** – deg
- ***Long*** – deg

Files associated with format:

GDF_ASPO_Cartesian_Station_Network

Fields	Station_codename	Lat	Long	Depth	Sensor_type	Sample_rate	X	Y	Z	VX	VY	VZ
1	'AE1'	57.4330	16.6604	0.4065	'AE, side view'	'1000000'	2.4137e+03	7.3042e+03	406.4900	0.7120	-0.6980	-0.0810
2	'AE2'	57.4330	16.6604	0.4056	'AE, side view'	'1000000'	2.4044e+03	7.2965e+03	405.5600	0.7120	-0.6980	-0.0810
3	'AE3'	57.4330	16.6604	0.4042	'AE, side view'	'1000000'	2.4186e+03	7.3094e+03	404.1900	0.3110	-0.9490	-0.0570
4	'AE4'	57.4330	16.6604	0.3994	'AE, side view'	'1000000'	2.4111e+03	7.3027e+03	399.4500	0.3110	-0.9490	-0.0570
5	'AE5'	57.4330	16.6604	0.3947	'AE, side view'	'1000000'	2.4036e+03	7.2959e+03	394.7300	0.3110	-0.9490	-0.0570

CAVITY ROOF LEVEL

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying profile name of cavity roof measurement
- ***Lat*** – vector of real numbers specifying latitude of cavity roof height

- ***Long*** – vector of real numbers specifying longitude of cavity roof height
- ***Elevation*** – vector of real numbers containing elevation above sea of cavity roof height

Field details

FieldDescription

- ***Name*** – Profile name of cavity roof measurement
- ***Lat*** – Latitude of cavity roof
- ***Long*** – Longitude of cavity roof
- ***Elevation*** – Elevation of cavity roof in meters above sea level

FieldType

- ***Name*** – 3
- ***Lat*** – 124
- ***Long*** – 134
- ***Elevation*** – 4

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg
- ***Elevation*** – m

Files associated with format:

GDF_GISOS_cavity_roof_level

Fields	Name	Lat	Long	Elevation
1	'ProfileA_1 ...	[48.6795;48....	[6.3201;6.32...	[-43.6000;-2...
2	'ProfileA_2 ...	[48.6795;48....	[6.3201;6.32...	[-43.6000;-2...
3	'ProfileB_3 ...	*11x1 double*	*11x1 double*	*11x1 double*
4	'ProfileB_4 ...	*11x1 double*	*11x1 double*	*11x1 double*

COLLAR DRILLHOLE POSITION

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying name of collar drillhole
- ***Lat*** – vector of real numbers specifying latitude of collar drillhole
- ***Long*** – vector of real numbers specifying longitude of collar drillhole

optional:

- ***Elevation*** – vector of real numbers containing elevation above sea of collar drillhole
- ***Start_azimuth*** – vector of real numbers specifying azimuth of collar drillhole trajectory at specified depth
- ***Start_dip*** – vector of real numbers specifying dip of collar drillhole trajectory at specified depth
- ***Total_depth*** – vector of real numbers specifying total depth of collar drillhole
- ***Total_length*** – vector of real numbers specifying total length of collar drillhole

Field details

FieldDescription

- ***Name*** – Name of collar drillhole
- ***Lat*** – Latitude of collar drillhole
- ***Long*** – Longitude of collar drillhole

- *optional:*

- ***Elevation*** – Elevation of collar drillhole
- ***Start_azimuth*** – Initial values of azimuth from true north
- ***Start_dip*** – Initial values of dip
- ***Total_depth*** – Total depth of collar drillhole
- ***Total_length*** – Total length of collar drillhole

FieldType

- ***Name*** – 3
- ***Lat*** – 124
- ***Long*** – 134

- *optional:*

- ***Elevation*** – 4
- ***Start_azimuth*** – 4
- ***Start_dip*** – 4
- ***Total_depth*** – 4
- ***Total_length*** – 4

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg

- *optional:*

- ***Elevation*** – m
- ***Start_azimuth*** – deg
- ***Start_dip*** – deg
- ***Total_depth*** – m
- ***Total_length*** – m

Files associated with format:

- *GDF_PYHASALMI_collar_drillhole_position [Collar Drillhole Position]*

Fields	Name	Lat	Long	Elevation	Total_length	Start_azimuth	Start_dip
1	'MPYS-107'	63.6542	26.0476	167.4520	592.6000	99.8780	-71
2	'MPYS-112'	63.6640	26.0394	158.4524	343.2000	279.8780	-51.5000
3	'MPYS-113'	63.6701	26.0591	154.9519	621.3000	259.9780	-50
4	'MPYS-114'	63.6776	26.0535	154.9523	457.9000	260	-50
5	'MPYS-115'	63.6671	26.0425	148.9524	395.1000	279.9780	-50
6	'MPYS-117'	63.6574	26.0160	149.4531	526.1000	101.9900	-70.3000
7	'MPYS-119'	63.6712	26.0626	154.9518	745.9000	300	-65
8	'MPYS-20'	63.6737	26.0610	154.4519	505.3500	260	-62.4000
9	'MPYS-29'	63.6751	26.0608	154.4519	430.3000	260	-74.2000
10	'MPYS-90'	63.6724	26.0590	155.4519	321.5000	290	-56.2000

CONTINUOUS GEODETIC MEASUREMENTS

Data details

'd' structure contains fields:

- ***Station_codename***– variable of char type specifying code name of the station/measurement point
- ***Date***– vector of real numbers specifying 'matlab' time
- ***Lat***– variable of real numbers specifying latitude of the station/measurement point
- ***Long***– variable of real numbers specifying longitude of the station/measurement point
- ***Elevation***– variable of real numbers containing elevation in meters above sea level of the station/measurement point
- ***Def_Up***– vector containing geodetic measurements for each station/ measurement point
- ***Def_North***– vector containing geodetic measurements for each station/ measurement point
- ***Def_East***– vector containing geodetic measurements for each station/ measurement point

Optional:

- ***Description*** – variable of char type specifying description of the station/ measurement point
- ***Up_error***– vector containing error in determining the coordinate 'Up' values
- ***North_error***– vector containing error in determining the coordinate 'North' values
- ***East_error***– vector containing error in determining the coordinate 'East' values

Field details

FieldDescription

- ***Station_codename***– code name of the GNSS measurement device
- ***Date***– time of measurement for each GNSS station
- ***Lat***– latitude of the station/ measurement point
- ***Long***– longitude of the station/ measurement point
- ***Elevation***– height of each GNSS station/ measurement point
- ***Def_Up***– vertical deformation for each station
- ***Def_North***– horizontal deformation in „North" direction for each station
- ***Def_East***– horizontal deformation in „East" direction for each station

Optional:

- ***Description*** – description of the GNSS measurement device
- ***Up_error***– error in determining the coordinate „Up" in the topocentric system
- ***North_error***– error in determining the coordinate „North" in the topocentric system
- ***East_error***– error in determining the coordinate „East" in the topocentric system

FieldType

- ***Station_codename***– 3
- ***Date***– 5
- ***Lat***– 124
- ***Long***– 134
- ***Elevation***– 32
- ***Def_Up***– 114
- ***Def_North***– 114
- ***Def_East***– 114

Optional:

- ***Description*** – 3
- ***Up_error***– 14
- ***North_error***– 14
- ***East_error***– 14

FieldUnit

- ***Station_codename***– char
- ***Date***– datenum
- ***Lat***– deg
- ***Long***– deg
- ***Elevation***– m
- ***Def_Up***– m
- ***Def_North***– m
- ***Def_East***– m

Optional:

- ***Description*** – char
- ***Up_error***– m
- ***North_error***– m
- ***East_error***– m

Files associated with format:

- *GDF_MUSE2_Deformation_Monitoring_System_GNSS_continuous.mat*

d

1x7 struct with 12 fields

Fields	Station_codename	Description	Lat	Long	Elevation	Date	Def_Up	Def_North	Def_East	Up_error	North_error	East_error
1	'PI01'	'Station PI01. ...	50.0714	18.4529	322.8216	[7.3778e+05...	[0;-0.0179;-...	[0;0.0020;-0.0...	[0;6.0000e-0...	[0.0321;0.01...	[0.0065;0.0063;...	[0.0043;0.005...
2	'PI02'	'Station PI02. ...	50.0688	18.4754	303.0406	264x1 double	264x1 double	264x1 double	264x1 double	264x1 double	264x1 double	264x1 double
3	'PI03'	'Station PI03. ...	50.0704	18.4570	308.3314	416x1 double	416x1 double	416x1 double	416x1 double	416x1 double	416x1 double	416x1 double
4	'PI04'	'Station PI04. ...	50.0671	18.4802	309.1395	459x1 double	459x1 double	459x1 double	459x1 double	459x1 double	459x1 double	459x1 double
5	'PI05'	'Station PI05. ...	50.0653	18.4766	321.0138	299x1 double	299x1 double	299x1 double	299x1 double	299x1 double	299x1 double	299x1 double

CUMULATIVE INJECTION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Cumulative_injection*** – vector of real numbers containing the cumulative injection measured at a defined borehole

Field details

FieldDescription

- ***Date*** – Time of cumulative fluid injection
- ***Cumulative_injection*** – Cumulative injection

FieldType

- **Date** – 5
- ***Cumulative_injection*** – 7

FieldUnit

- **Date** – datenum
- ***Cumulative_injection*** – m^3

Files associated with format:

- *GDF_TG_cum_inj_rate_prati_9 [Cumulative Injection]*
- *GDF_TG_cum_inj_rate_prati_9_29 [Cumulative Injection]*
- *GDF_TG_cum_inj_rate_prati_29 [Cumulative Injection]*
- *GDF_TG_daily_cum_inj_rate_prati_9 [Cumulative Injection]*
- *GDF_TG_daily_cum_inj_rate_prati_9_29 [Cumulative Injection]*
- *GDF_TG_daily_cum_inj_rate_prati_29 [Cumulative Injection]*

DOWNHOLE PRESSURE

Data details

'd' structure contains fields:

- ***Name***– vector of char type specifying name of the well where the measurement took place
- ***Elevation***– array of real numbers containing vectors of elevation values
- ***Pressure***– array of real numbers containing vectors of downhole pressure values

Optional:

- ***Date***– array of real numbers containing 'matlab' time
- ***Depth***– array of real numbers containing vectors of depth values

Field details

FieldDescription

- ***Name*** – Code name of the well where the measurement took place
- ***Elevation***– Elevation of the downhole pressure measurement
- ***Pressure***– Downhole pressure

Optional:

- ***Date***– Date of measurement
- ***Depth***– Depth of the downhole pressure measurement

FieldType

- ***Name***– 3
- ***Elevation***– 142
- ***Pressure***– 24

Optional:

- ***Date***– 5
- ***Depth***– 142

FieldUnit

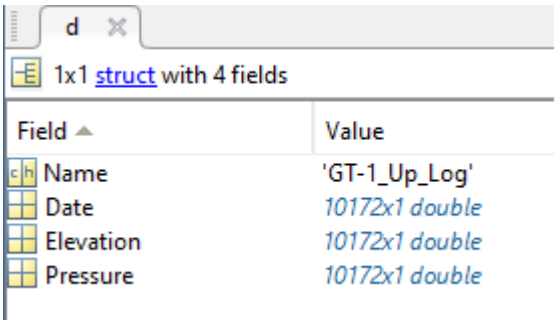
- ***Name***– char
- ***Elevation***– m
- ***Pressure***– MPa

Optional:

- ***Date***– datenum
- ***Depth***– m

Files associated with format:

- *GDF_ST_GALLEN_Downhole_Pressure_UP_Log.mat*



DOWNHOLE TEMPERATURE

Data details

'd' structure contains fields:

- ***Name***– vector of char type specifying name of the well where the measurement took place
- ***Elevation***– array of real numbers containing vectors of elevation values
- ***Temperature***– array of real numbers containing vectors of downhole temperature values

Optional:

- ***Date***– array of real numbers containing 'matlab' time
- ***Depth***– array of real numbers containing vectors of depth values

Field details

FieldDescription

- ***Name*** – Code name of the well where the measurement took place
- ***Elevation***– Elevation of the downhole temperature measurement
- ***Temperature***– Downhole temperature

Optional:

- ***Date***– Date of measurement
- ***Depth***– Depth of the downhole temperature measurement

FieldType

- ***Name***– 3
- ***Elevation***– 142
- ***Temperature***– 33

Optional:

- ***Date***– 5
- ***Depth***– 142

FieldUnit

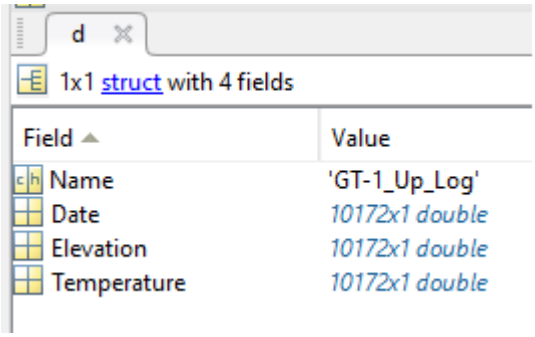
- ***Name***– char
- ***Elevation***– m
- ***Temperature***– Celsius deg

Optional:

- ***Date***– datenum
- ***Depth***– m

Files associated with format:

- *GDF_ST_GALLEN_Downhole_Temperature_Up_Log.mat*



DRILLHOLE LITHOLOGY

Note: Only one of the following fields can occur: **Length_ Depth_ Z_downwawrds_** - values on vertical axis grows down**, Elevation_ Z_upwards** - values on vertical axis grows up

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying name of collar drillhole
- ***Length_from*** – array of real numbers containing vectors of start length position [in column]
- ***Length_to*** – array of real numbers containing vectors of end length position [in column]
- ***Lithology*** – array of char type specifying lithology at specified pipe length [in column]

optional:

- ***Lithology_code*** – array of char type specifying code of lithology at specified pipe length [in column]
- ***Rock_code*** – array of char type specifying numeric code of rock at specified pipe length
- ***Lat*** – vector of real numbers specifying latitude of collar drillhole
- ***Long*** – vector of real numbers specifying longitude of collar drillhole
- ***Elevation*** – vector of real numbers specifying elevation of collar drillhole
- ***Depth_from*** – array of real numbers containing vectors of start depth position [in column]
- ***Depth_to*** – array of real numbers containing vectors of end depth position [in column]
- ***Z_downwards_from*** – array of real numbers containing vectors of start Z position [in column], values counted downwards from surface
- ***Z_downwards_to*** – array of real numbers containing vectors of end Z position [in column], values counted downwards from surface
- ***Elevation_from*** – array of real numbers containing vectors of start elevation position [in column]
- ***Elevation_to*** – array of real numbers containing vectors of end elevation position [in column]
- ***Z_upwards_from*** – array of real numbers containing vectors of start Z position [in column], values counted upwards from surface
- ***Z_upwards_to*** – array of real numbers containing vectors of end Z position [in column], values counted upwards from surface

Field details

FieldDescription

- ***Name*** – Name of collar drillhole
- ***Length_from*** – Start length position
- ***Length_to*** – End length position
- ***Lithology*** – Lithology at specified pipe length

optional:

- ***Lithology_code*** – Code of lithology at specified pipe length
- ***Rock_code*** – Numeric code of rock at specified pipe length
- ***Lat*** – Latitude of collar drillhole
- ***Long*** – Longitude of collar drillhole
- ***Elevation*** – Elevation of collar drillhole
- ***Depth_from*** – Start depth position
- ***Depth_to*** – End depth position
- ***Z_downwards_from*** – Start Z position

- ***Z_downwards_to*** – End Z position
- ***Elevation_from*** – Start elevation position
- ***Elevation_to*** – End elevation position
- ***Z_upwards_from*** – Start Z position
- ***Z_upwards_to*** – End Z position

FieldType

- ***Name*** – 3
- ***Length_from*** – 4
- ***Length_to*** – 4
- ***Lithology*** – 3

optional:

- ***Lithology_code*** – 3
- ***Rock_code*** – 2
- ***Lat*** – 4
- ***Long*** – 4
- ***Elevation*** – 4
- ***Depth_from*** – 4
- ***Depth_to*** – 4
- ***Z_downwards_from*** – 4
- ***Z_downwards_to*** – 4
- ***Elevation_from*** – 4
- ***Elevation_to*** – 4
- ***Z_upwards_from*** – 4
- ***Z_upwards_to*** – 4

FieldUnit

- ***Name*** – char
- ***Length_from*** – m
- ***Length_to*** – m
- ***Lithology*** – char

optional:

- ***Lithology_code*** – char
- ***Rock_code*** – dimensionless
- ***Lat*** – deg
- ***Long*** – deg
- ***Elevation*** – m
- ***Depth_from*** – m
- ***Depth_to*** – m
- ***Z_downwards_from*** – m
- ***Z_downwards_to*** – m
- ***Elevation_from*** – m
- ***Elevation_to*** – m
- ***Z_upwards_from*** – m
- ***Z_upwards_to*** – m

Files associated with format:

- *GDF_PYHASALMI_drillhole_lithology [Drillhole Lithology]*

Fields	Name	Lat	Long	Elevation	Length_from	Length_to	Lithology	Lithology_code
1	'MPYS-20'	63.6737	26.0610	154.4519	*117x1 double*	*117x1 double*	*117x1 cell*	*117x1 cell*
2	'MPYS-29'	63.6751	26.0608	154.4519	*82x1 double*	*82x1 double*	*82x1 cell*	*82x1 cell*
3	'MPYS-90'	63.6724	26.0590	155.4519	*66x1 double*	*66x1 double*	*66x1 cell*	*66x1 cell*
4	'MPYS-107'	63.6544	26.0456	167.4521	*147x1 double*	*147x1 double*	*147x1 cell*	*147x1 cell*
5	'MPYS-112'	63.6640	26.0394	158.4524	*115x1 double*	*115x1 double*	*115x1 cell*	*115x1 cell*
6	'MPYS-113'	63.6701	26.0591	154.9519	*151x1 double*	*151x1 double*	*151x1 cell*	*151x1 cell*
7	'MPYS-114'	63.6776	26.0535	154.9523	*162x1 double*	*162x1 double*	*162x1 cell*	*162x1 cell*
8	'MPYS-115'	63.6671	26.0425	148.9524	*135x1 double*	*135x1 double*	*135x1 cell*	*135x1 cell*
9	'MPYS-117'	63.6574	26.0160	149.4531	*71x1 double*	*71x1 double*	*71x1 cell*	*71x1 cell*
10	'MPYS-119'	63.6712	26.0626	154.9518	*146x1 double*	*146x1 double*	*146x1 cell*	*146x1 cell*

FAULTS

Data details

'd' structure contains fields:

- ***Lat*** – array of real numbers containing vectors of latitude coordinate of the fault [in column]
- ***Long*** – array of real numbers containing vectors of longitude coordinate of the fault [in column]

optional:

- ***Name*** – vector of char type specifying name of the fault

Field details

FieldDescription

- ***Lat*** – Latitude of the faults
- ***Long*** – Longitude of the faults

optional:

- ***Name*** – Name of the fault or fault zone

FieldType

- ***Lat*** – 124
- ***Long*** – 134

optional:

- ***Name*** – 3

FieldUnit

- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Name*** – char

Files associated with format:

- *GDF_USCB_main_faults [Faults]*
- *GDF_USCB_all_faults [Faults]*

Fields	Name	Lat	Long
1	'KŁODNICKI...	*37x1 double*	*37x1 double*
2	'KŁODNICKI...	*18x1 double*	*18x1 double*
3	'KŁODNICKI...	[50.2334;50....	[18.9095;18....
4	'KŁODNICKI...	[50.2315;50....	[19.0089;19....
5	'KŁODNICKI...	*14x1 double*	*14x1 double*
6	'KŁODNICKI...	[50.2388;50....	[18.9588;18....
7	'KŁODNICKI...	*30x1 double*	*30x1 double*
8	'BZIE-CZEC...	*14x1 double*	*14x1 double*
9	'BZIE-CZEC...	[49.9376;49....	[18.6561;18....
10	'BZIE-CZEC...	*12x1 double*	*12x1 double*

FLOWBACK BOTTOMHOLE PRESSURE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Flowback_bottomhole_pressure*** – vector of real numbers containing the flowback bottomhole pressure

Field details

FieldDescription

- **Date** – Time of flowback bottomhole pressure
- ***Flowback_bottomhole_pressure*** – Flowback bottomhole pressure

FieldType

- **Date** – 5
- ***Flowback_bottomhole_pressure*** – 34

FieldUnit

- **Date** – datenum
- ***Flowback_bottomhole_pressure*** – MPa

Files associated with format:

- *GDF_PREESEHALL_Flowback_Bottomhole_Pressure [Flowback Bottomhole Pressure]*

Field	Value
Date	*7726x1 double*
Flowback_bottomhole_pressure	*7726x1 double*

FLOWBACK RATE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Flowback_rate*** – vector of real numbers containing the flowback rate

Field details

FieldDescription

- **Date** – Time of flowback rate
- ***Flowback_rate*** – Flowback rate

FieldType

- **Date** – 5
- ***Flowback_rate*** – 14

FieldUnit

- **Date** – datenum
- ***Flowback_rate*** – m^3/min

Files associated with format:

- *GDF_PREESEHALL_Flowback_Rate [Flowback Rate]*

Field	Value
Date	*7726x1 double*
Flowback_rate	*7726x1 double*

FLOWBACK VOLUME

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Flowback_volume*** – vector of real numbers containing the flowback volume

Field details

FieldDescription

- **Date** – Time of flowback volume
- ***Flowback_volume*** – Flowback volume

FieldType

- **Date** – 5
- ***Flowback_volume*** – 44

FieldUnit

- **Date** – datenum
- ***Flowback_volume*** – m^3

Files associated with format:

- *GDF_PREESEHALL_Flowback_Volume [Flowback Volume]*

FRACKING PROCESS PARAMETERS

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Maximum_pressure*** –vector of real numbers specifying maximum obtained pressure
- ***Total_proppant*** – vector of real numbers specifying total amount of proppant
- ***Maximum_proppant_concentration*** – vector of real numbers specifying maximum concentration of proppant
- ***Total_volume_of_slickwater*** – vector of real numbers specifying total volume of slickwater
- ***Total_volume_of_injected_fluid*** – vector of real numbers specifying total volume of injected fluids (proppant, slickwater, HCl etc.)

optional:

- ***Perforation_number*** – vector of real numbers specifying number of perforations
- ***Mesh_100*** –vector of real numbers specifying amount of proppant with size 100 mesh
- ***Mesh_40_70*** – vector of real numbers specifying amount of proppant with size 40/70 mesh
- ***ISP_40_70*** – vector of real numbers specifying amount of Intermediate Strength Proppant with size 40/70 mesh
- ***Resinated_40_70*** – vector of real numbers specifying amount of resinated proppant with size 40/70 mesh
- ***Sinterball_30_60*** – vector of real numbers specifying amount of Sinterball proppant with size 30/60 mesh
- ***NRT_20_40*** – vector of real numbers specifying amount of Non-Radioactive Tracers proppant with size 20/40 mesh
- ***Carbolite_30_50*** – vector of real numbers specifying amount of Carbolite proppant with size 30/50 mesh
- ***Slickwater_pump_down*** – vector of real numbers specifying volume of slickwater during pump down
- ***Slickwater_main_operation***– vector of real numbers specifying volume of slickwater during main fracking operation
- ***Linear_gel*** – vector of real numbers specifying volume of linear gel
- ***HCL*** – vector of real numbers specifying volume of HCl

Field details

FieldDescription

- ***Date*** – 'Time of fracking stage'
- ***Maximum_pressure*** –'Maximum pressure obtained during fracking stage'
- ***Total_proppant*** – 'Total amount of proppant'
- ***Maximum_proppant_concentration*** – 'Maximum proppant concentration'
- ***Total_volume_of_slickwater*** – 'Total volume of slickwater'
- ***Total_volume_of_injected_fluid*** – 'Total volume of injected fluid'

optional:

- ***Perforation_number*** – 'Number of perforations performed at the particular fracking stage'
- ***Mesh_100*** –'Concentration of proppant with size 100 mesh'
- ***Mesh_40_70*** – 'Concentration of proppant with size 40/70 mesh'
- ***ISP_40_70*** – 'Concentration of Intermediate Strength Proppant with size 40/70 mesh'
- ***Resinated_40_70*** – 'Concentration of Resinated Proppant with size 40/70 mesh'

- ***Sinterball_30_60*** – 'Concentration of SinterBall Proppant with size 30/60 mesh'
- ***NRT_20_40*** – 'Concentration of Non-Radioactive Tracers proppant with size 20/40 mesh'
- ***Carbolite_30_50*** – 'Concentration of Carbolite Proppant with size 30/50 mesh'
- ***Slickwater_pump_down*** – 'Slickwater volume during pump down'
- ***Slickwater_main_operation***– 'Slickwater volume during fracking main operation'
- ***Linear_gel*** – 'Volume of linear gel'
- ***HCL*** – 'Volume of HCL'

FieldType

- ***Date*** – 5
- ***Maximum_pressure*** –143
- ***Total_proppant*** – 143
- ***Maximum_proppant_concentration*** – 143
- ***Total_volume_of_slickwater*** – 143
- ***Total_volume_of_injected_fluid*** – 143

optional:

- ***Perforation_number*** – 143
- ***Mesh_100*** –143
- ***Mesh_40_70*** – 143
- ***ISP_40_70*** – 143
- ***Resinated_40_70*** – 143
- ***Sinterball_30_60*** – 143
- ***NRT_20_40*** – 143
- ***Carbolite_30_50*** – 143
- ***Slickwater_pump_down*** – 143
- ***Slickwater_main_operation***– 143
- ***Linear_gel*** –143
- ***HCL*** – 143

FieldUnit

- ***Date*** – datenum
- ***Maximum_pressure*** –bar
- ***Total_proppant*** – ton
- ***Maximum_proppant_concentration*** – kg/m^3
- ***Total_volume_of_slickwater*** – m^3
- ***Total_volume_of_injected_fluid*** – m^3

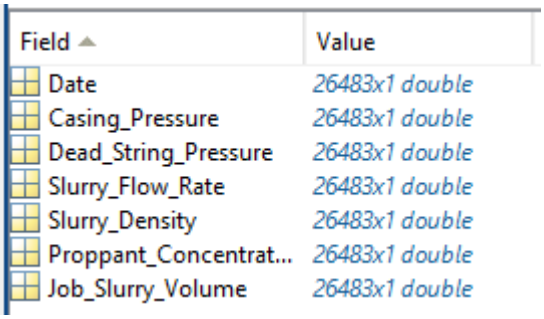
optional:

- ***Perforation_number*** – dimensionless
- ***Mesh_100*** –ton
- ***Mesh_40_70*** – ton
- ***ISP_40_70*** – ton
- ***Resinated_40_70*** – ton
- ***Sinterball_30_60*** – ton
- ***NRT_20_40*** – ton
- ***Carbolite_30_50*** – ton
- ***Slickwater_pump_down*** – m^3
- ***Slickwater_main_operation***– m^3
- ***Linear_gel*** –m^3
- ***HCL*** – m^3

Files associated with format:

GDF_Wysin_Fracking_process_parameters_2H [Fracking Process Parameters]

GDF_Wysin_Fracking_process_parameters_3H [Fracking Process Parameters]



GEOAREA

Data details

'd' structure contains fields:

- ***Lat*** – array of real numbers containing vectors of latitude coordinate [in column]
- ***Long*** – array of real numbers containing vectors of longitude coordinate [in column]

Field details

FieldDescription

- ***Lat*** – Latitude of the… (USCB boundary)
- ***Long*** – Longitude of the… (USCB boundary)

FieldType

- ***Lat*** – 124
- ***Long*** – 134

FieldUnit

- ***Lat*** – deg
- ***Long*** – deg

Files associated with format:

- *GDF_USCB_boundary_of_USCB [Geoarea]*

Fields	Lat	Long
1	33x1 double	33x1 double
2	65x1 double	65x1 double
3	15x1 double	15x1 double
4	23x1 double	23x1 double
5	21x1 double	21x1 double
6	13x1 double	13x1 double
7	17x1 double	17x1 double
8	830x1 double	830x1 double
9	[49.8901;49....	[19.5208;19....
10	20x1 double	20x1 double

GEOPOLYGON 3D

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying name of 3-D polygon
- ***Lat*** – vector of real numbers specifying latitude of 3-D polygon
- ***Long*** – vector of real numbers specifying longitude of 3-D polygon
- ***Elevation*** – vector of real numbers containing elevation above sea of 3-D polygon

Field details

FieldDescription

- ***Name*** – Name of 3-D polygon
- ***Lat*** – Latitude of 3-D polygon
- ***Long*** – Longitude of 3-D polygon
- ***Elevation*** – Elevation of 3-D polygon in meters above sea level

FieldType

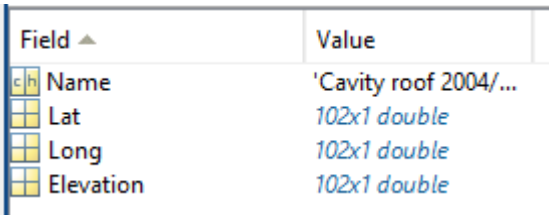
- ***Name*** – 3
- ***Lat*** – 24
- ***Long*** – 14
- ***Elevation*** – 21

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg
- ***Elevation*** – m

Files associated with format:

- *GDF_GISOS_cavity_roof_geopolygon_3D*



GNSS STATIONS

Data details

'd' structure contains fields:

- ***Station_codename***– vector of char type specifying code name of the measurement device
- ***Lat***– vector of real numbers specifying latitude of logger
- ***Long***– vector of real numbers specifying longitude of logger

optional:

- ***Description***– vector of char type specifying description of the logger
- ***Elevation***– vector of real numbers containing elevation above sea level of the logger
- ***Depth***– vector of real numbers specifying depth of the logger
- ***Sensor_type***– vector of char type specifying type or name of the logger
- ***Sample_rate***– vector of char type specifying sample rate of the measurements
- ***Parameter_unit***– vector of char type specifying measurements parameter information
- ***Start***– vector of real numbers containing 'matlab' time of start operation of the logger
- ***End***– vector of real numbers containing 'matlab' time of end operation of the logger

Field details

FieldDescription

- ***Station_codename***– Code name of the station
- ***Lat***– Latitude of the station
- ***Long***– Longitude of the station

optional:

- ***Description***– Description of the station
- ***Elevation***– Elevation of the station
- ***Depth***– Depth of the station
- ***Sensor_type***– Type of the sensor
- ***Sample_rate***– Sample rate
- ***Parameter_unit***– Unit of the parameter
- ***Start***– Start time of data recording
- ***End***– End time of data recording

FieldType

- ***Station_codename***– 3
- ***Lat***– 124
- ***Long***–134

optional:

- ***Description***– 3
- ***Elevation***– 134
- ***Depth***– 114
- ***Sensor_type***– 3
- ***Sample_rate***– 3
- ***Parameter_unit***– 3
- ***Start***– 5
- ***End***– 5

FieldUnit

- ***Station_codename***– char
- ***Lat***– deg
- ***Long***– deg

optional:

- ***Description***– char
- ***Elevation***– m
- ***Depth***– km
- ***Sensor_type***– char
- ***Sample_rate***– char
- ***Parameter_unit***– char
- ***Start***– datenum
- ***End***– datenum

Files associated with format:

- *GDF_MUSE1_GNSS_Stations.mat*

d

1x86 struct with 5 fields

Fields	Station_codename	Description	Lat	Long	Elevation
1	'901'	'Station0901'	50.3988	18.6265	267.5027
2	'902'	'Station0902'	50.2477	19.0433	301.8621
3	'903'	'Station0903'	50.0463	18.6933	302.8699
4	'904'	'Station0904'	50.2716	19.0263	327.8208
5	'905'	'Station0905'	50.0625	18.4672	339.0840

GRAVITY MONITORING

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying profile name gravity measurement
- ***Lat*** – vector of real numbers specifying latitude of station/measurement point
- ***Long*** – vector of real numbers specifying longitude of station/measurement point
- ***Residual_gravity_anomaly*** – vector of real numbers containing Residual gravity anomaly values
- ***Bouguer_gravity*** – vector of real numbers containing Bouger gravity values
- ***Station_codename*** – vector of char type specifying code name of station/measurement point

Field details

FieldDescription

- ***Name*** – Profile name of gravity measurement
- ***Lat*** – Latitude of station/measurement point
- ***Long*** – Longitude of station/measurement point
- ***Residual_gravity_anomaly*** – Residual gravity anomaly
- ***Bouguer_gravity*** – Bouger gravity
- ***Station_codename*** – Code name of the station/measurement point

FieldType

- ***Name*** – 3
- ***Lat*** – 124

- ***Long*** – 134
- ***Residual_gravity_anomaly*** – 13
- ***Bouguer_gravity*** – 13
- ***Station_codename*** – 3

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg
- ***Elevation*** – mGal
- ***Bouguer_gravity*** – mGal
- ***Station_codename*** – char

Files associated with format:

- *GDF_Northwich_gravity_monitoring*

Fields	Name	Lat	Long	Residual_gravity_anomaly	Station_codename
1	'2002'	51x1 double	51x1 double	51x1 double	51x1 cell
2	'2003'	61x1 double	61x1 double	61x1 double	61x1 cell
3	'2004'	108x1 double	108x1 double	108x1 double	108x1 cell
4	'2006'	47x1 double	47x1 double	47x1 double	47x1 cell
5	'2009'	51x1 double	51x1 double	51x1 double	51x1 cell
6	'2010'	57x1 double	57x1 double	57x1 double	57x1 cell
7	'2011'	63x1 double	63x1 double	63x1 double	63x1 cell

GRAVITY STATIONS

Data details

'd' structure contains fields:

- ***Station_codename***– vector of char type specifying code name of the measurement device
- ***Lat***– vector of real numbers specifying latitude of logger
- ***Long***– vector of real numbers specifying longitude of logger

optional:

- ***Description***– vector of char type specifying description of the logger
- ***Elevation*** – vector of real numbers containing elevation above sea level of the logger
- ***Depth*** – vector of real numbers specifying depth of the logger
- ***Sensor_type***– vector of char type specifying type or name of the logger
- ***Sample_rate***– vector of char type specifying sample rate of the measurements
- ***Parameter_unit***– vector of char type specifying measurements parameter information
- ***Start***– vector of real numbers containing 'matlab' time of start operation of the logger
- ***End***– vector of real numbers containing 'matlab' time of end operation of the logger

Field details

FieldDescription

- ***Station_codename***– Code name of the station
- ***Lat***– Latitude of the station
- ***Long***– Longitude of the station

optional:

- ***Description***– Description of the station
- ***Elevation*** – Elevation of the station
- ***Depth*** – Depth of the station
- ***Sensor_type***– Type of the sensor
- ***Sample_rate***– Sample rate
- ***Parameter_unit***– Unit of the parameter
- ***Start***– Start time of data recording
- ***End***– End time of data recording

FieldType

- ***Station_codename***– 3
- ***Lat***– 124
- ***Long***–134

optional:

- ***Description***– 3
- ***Elevation*** – 4
- ***Depth*** – 114
- ***Sensor_type***– 3
- ***Sample_rate***– 3
- ***Parameter_unit***– 3
- ***Start***– 5
- ***End***– 5

FieldUnit

- ***Station_codename***– char
- ***Lat***– deg
- ***Long***– deg

optional:

- ***Description***– char
- ***Elevation*** – m
- ***Depth*** – km
- ***Sensor_type***– char
- ***Sample_rate***– char
- ***Parameter_unit***– char
- ***Start***– datenum
- ***End***– datenum

Files associated with format:

- *GDF_PREESALL_MINE_gravity_stations*

Fields	Station_codename	Lat	Long
1	'BW64_gravity_000_100'	53.9045	-2.9817
2	'BW64_gravity_000_090'	53.9044	-2.9817
3	'BW64_gravity_000_080'	53.9043	-2.9817
4	'BW64_gravity_000_040'	53.9040	-2.9817
5	'BW64_gravity_000_060'	53.9041	-2.9817
6	'BW64_gravity_000_070'	53.9042	-2.9817

GROUND WATER LEVEL

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Station_codename 1'*** – vector of real numbers containing the ground water level for a specified station/place 1' [m above sea level]
- ***Station_codename 2'*** – vector of real numbers containing the ground water level for a specified station/place 2' [m above sea level]
- ***…***
- ***Station_codename n'*** – vector of real numbers containing the ground water level for a specified station/place n' [m above sea level]

Field details

FieldDescription

- ***Date*** – Time of measurement
- ***Station_codename 1'*** – ground water level above sea level measured for a specified station/place 1'
- ***Station_codename 2'*** – ground water level above sea level measured for a specified station/place 2'
- ***…***
- ***Station_codename n'*** – ground water level above sea level measured for a specified station/place n'

FieldType

- ***Date*** – 5
- ***Station_codename 1'*** – 32

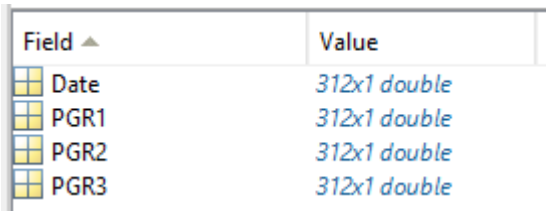
- ***Station_codename 2'*** – 32
- ***...***
- ***Station_codename n'*** – 32

FieldUnit

- ***Date*** – datenum
- ***Station_codename 1'*** – m
- ***Station_codename 2'*** – m
- ***...***
- ***Station_codename n'*** – m

Files associated with format:

- *GDF_GISOS_piezo_ground_water_level*
- *GDF_GISOS_cavity_ground_water_level*



Field	Value
Date	312x1 double
PGR1	312x1 double
PGR2	312x1 double
PGR3	312x1 double

INJECTION RATE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Injection_rate*** – vector of real numbers containing the injection rate measured at a defined point

Field details

FieldDescription

- **Date** – Time of fluid injection
- **Injection_rate** – Injection rate

FieldType

- **Date** – 5
- **Injection_rate** – 24 [34, 134]

FieldUnit

- **Date** – datenum
- **Injection_rate** – m^3/min [l/s]

Files associated with format:

- *GDF_GS_Injection_Rate [Injection Rate]*
- *GDF_PREESEHALL_Injection_Rate [Injection Rate]*
- *GDF_TG_daily_inj_rate_prati_9 [Injection Rate]*
- *GDF_TG_daily_inj_rate_prati_9_29 [Injection Rate]*
- *GDF_TG_daily_inj_rate_prati_29 [Injection Rate]*
- *GDF_TG_inj_rate_prati_9 [Injection Rate]*
- *GDF_TG_inj_rate_prati_9_29 [Injection Rate]*
- *GDF_TG_inj_rate_prati_29 [Injection Rate]*

Field	Value
Date	7726x1 double
Injection_rate	7726x1 double

INJECTION RATE MULTI

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***'Well number 1'*** – vector of real numbers containing the injection rate measured for a specified well no. 1
- **'Well number 2'** – vector of real numbers containing the injection rate measured for a specified well no. 2
- ...
- **'Well number n'** – vector of real numbers containing the injection rate measured for a specified well no. n

Field details

FieldDescription

- **Date** – Time of fluid injection
- ***'Well number 1'*** – Injection rate measured for a specified well no. 1
- **'Well number 2'** – Injection rate measured for a specified well no. 2
- ...
- **'Well number n'** – Injection rate measured for a specified well no. n

FieldType

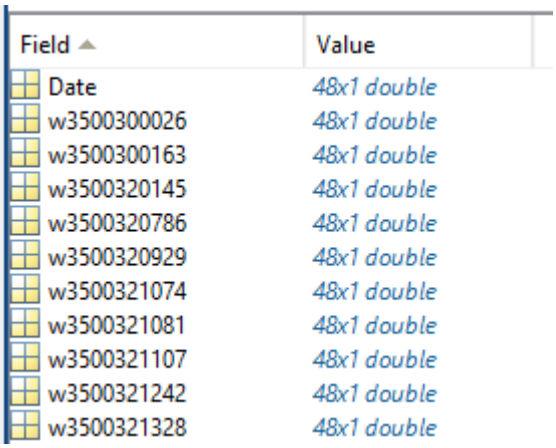
- **Date** – 5
- **'Well number 1'** – 24 [34, 134]
- **'Well number 2'** – 24 [34, 134]
- ...
- **'Well number n'** – 24 [34, 134]

FieldUnit

- **Date** – datenum
- **'Well number 1'** – m^3/s
- **'Well number 2'** – m^3/s
- ...
- **'Well number n'** – m^3/s

Files associated with format:

- GDF_OK_Injection_rate_multi.mat *[Injection Rate Multi]*



Field	Value
Date	48x1 double
w3500300026	48x1 double
w3500300163	48x1 double
w3500320145	48x1 double
w3500320786	48x1 double
w3500320929	48x1 double
w3500321074	48x1 double
w3500321081	48x1 double
w3500321107	48x1 double
w3500321242	48x1 double
w3500321328	48x1 double

INJECTION VOLUME

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Injection_volume*** – vector of real numbers containing the volume of injected fluid

Field details

FieldDescription

- **Date** – Time of injected volume

- ***Injection_volume*** – Injected volume

FieldType

- **Date** – 5
- ***Injection_volume*** – 54

FieldUnit

- **Date** – datenum
- ***Injection_volume*** – m^3

Files associated with format:

- *GDF_PREESEHALL_Injection_Volume [Injection Volume]*

Field	Value
Date	*11x1 double*
Injection_volume	*11x1 double*

INJECTION VOLUME MULTI

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- **'Well number 1'** – vector of real numbers containing the volume of injected fluid for a specified well no. 1
- **'Well number 2'** – vector of real numbers containing the volume of injected fluid for a specified well no. 2
- ...
- **'Well number n'** – vector of real numbers containing the volume of injected fluid for a specified well no. n

Field details

FieldDescription

- **Date** – Time of injected volume
- **'Well number 1'** – Injected volume for a specified well no. 1
- **'Well number 2'** – Injected volume for a specified well no. 2
- ...
- **'Well number n'** – Injected volumefor a specified well no. n

FieldType

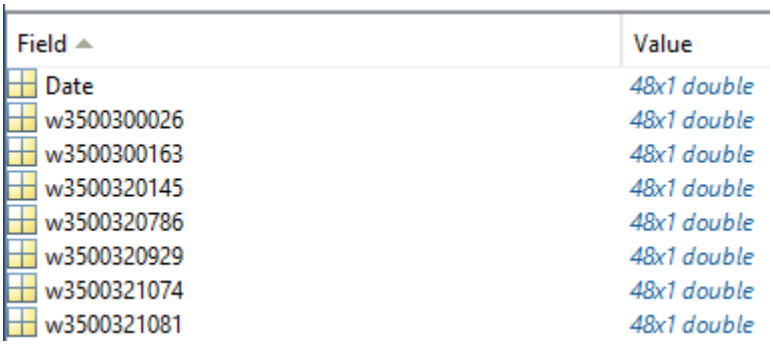
- **Date** – 5
- **'Well number 1'** – 54
- **'Well number 2'** – 54
- ...
- **'Well number n'** – 54

FieldUnit

- **Date** – datenum
- **'Well number 1'** – m^3
- **'Well number 2'** – m^3
- ...
- **'Well number n'** – m^3
-

Files associated with format:

- GDF_OK_Injection_volume_multi.mat *[Injection Volume Multi]*



Field	Value
Date	48x1 double
w3500300026	48x1 double
w3500300163	48x1 double
w3500320145	48x1 double
w3500320786	48x1 double
w3500320929	48x1 double
w3500321074	48x1 double
w3500321081	48x1 double

INSITU DEFORMATION

Data details

'd' structure contains fields:

- ***Station_codename*** – variable of char type specifying code name of the measurement device
- ***Lat*** – variable of real numbers specifying latitude of logger
- ***Long*** – variable of real numbers specifying longitude of logger
- ***Date –*** vector containing measurement date for each station
- ***DefZ*** – vector containing vertical deformation for each station

optional:

- ***DefX –*** vector containing horizontal deformation in X direction for each station
- ***DefY–*** vector containing horizontal deformation in Y direction for each station
- ***Depth*** – vector of real numbers specifying depth of logger
- ***Elevation*** – vector of real numbers containing elevation in meters above sea level

Field details

FieldDescription

- ***Station_codename*** – Code name of the station of measurement (e.g. target points for GPS, tacheometer and anchored borehole extensometer)
- ***Lat*** – Initial latitude of station/measurement point
- ***Long*** – Initial longitude of station/measurement point
- ***Date*** – Date of measurement for each station
- ***DefZ*** – Measurement of deformation in vertical direction relative to initial station position (describe convention, e.g. downward negative; upward positive)

optional:

- ***DefX –*** Measurement of horizontal deformation in X direction relative to initial station position (describe convention, e.g. positive towards East)
- ***DefY –*** Measurement of horizontal deformation in Y direction relative to initial station position (describe convention, e.g. positive towards North)
- ***Depth*** – Depth of each station from surface
- ***Elevation*** – Elevation of each station in meters above sea level

FieldType

- ***Station_codename*** – 3
- ***Lat*** – 24
- ***Long*** – 14
- ***Date*** – 5
- ***DefZ –*** 1

optional:

- ***DefIX –*** 1
- ***DefIY –*** 1
- ***Depth*** – 14
- ***Elevation*** – 1

FieldUnit

- ***Station_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg

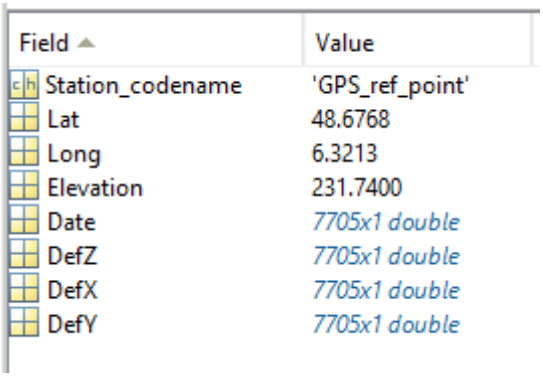
- ***Date –*** datenum
- ***DefZ –*** m

optional:

- ***DeflX –*** m
- ***DeflY –*** m
- ***Depth –*** km
- ***Elevation*** – m

Files associated with format:

GDF_GISOS_GPS_insitu_deformation.mat



INSITU TEMPERATURE

Data details

'd' structure contains fields:

- ***Date*** – variable of char type specifying measurement time
- ***Sensor_1*** – vector of real numbers containing rock temperature measured by sensor 1
- ***…***
- ***Sensor_n*** – vector containing rock temperature measured by sensor n

Field details

FieldDescription

- ***Date*** – Time of temperature measurement
- ***Sensor_1*** – Rock temperature measurement by sensor_1
- ***…***
- ***Sensor_n*** – Rock temperature measurement by sensor_n

FieldType

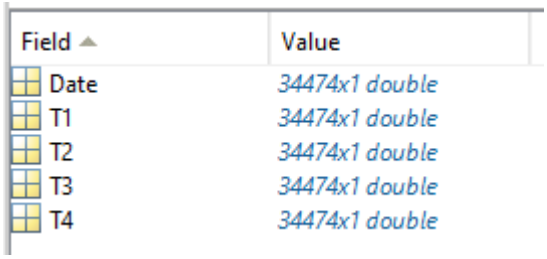
- ***Date*** – 5
- ***Sensor_1*** – 22
- ***…***
- ***Sensor_n*** – 22

FieldUnit

- ***Date*** –datenum
- ***Sensor_1*** – Celcious deg
- ***…***
- ***Sensor_n*** – Celcious deg

Files associated with format:

- *GDF_STARFISH_insitu_temperature*



Field	Value
Date	34474x1 double
T1	34474x1 double
T2	34474x1 double
T3	34474x1 double
T4	34474x1 double

INSITU TEMPERATURE STATIONS

Data details

'd' structure contains fields:

- ***Station_codename*** – vector of char type specifying code name of the logger
- ***Lat*** – vector of real numbers specifying latitude of the logger
- ***Long*** – vector of real numbers specifying longitude of the logger

optional:

- ***Description*** – vector of char type specifying description of the logger
- ***Elevation*** – vector of real numbers containing elevation above sea level of the logger
- ***Depth*** – vector of real numbers specifying depth of the logger
- ***Sensor_type*** – vector of char type specifying type or name of the logger
- ***Sample_rate*** – vector of char type specifying sample rate of the measurements
- ***Parameter_unit*** – vector of char type specifying measurements parameter information
- ***Start*** – vector of real numbers containing 'matlab' time of start operation of the logger
- ***End*** – vector of real numbers containing 'matlab' time of end operation of the logger
- ***X*** – vector of real numbers containing local X coordinate of the logger
- ***Y*** – vector of real numbers containing local Y coordinate of the logger
- ***Z*** – vector of real numbers containing local Z coordinate of the logger

Field details

FieldDescription

- ***Station_codename*** – Code name of the station
- ***Lat*** – Latitude of the station
- ***Long*** – Longitude of the station

optional:

- ***Description*** – Description of the station
- ***Elevation*** – Elevation of the station
- ***Depth*** – Depth of the station
- ***Sensor_type*** – Type of the sensor
- ***Sample_rate*** – Sample rate
- ***Parameter_unit*** – Unit of the parameter
- ***Start*** – Start time of data recording
- ***End*** – End time of data recording
- ***X*** – Local X coordinate of the station
- ***Y*** – Local Y coordinate of the station
- ***Z*** – Local Z coordinate of the station

FieldType

- ***Station_codename*** – 3
- ***Lat*** – 124
- ***Long*** –134

optional:

- ***Description*** – 3
- ***Elevation*** – 4
- ***Depth*** – 114
- ***Sensor_type*** – 3
- ***Sample_rate*** – 3
- ***Parameter_unit*** – 3
- ***Start*** – 5
- ***End*** – 5
- ***X*** – 12

- ***Y*** – 12
- ***Z*** – 12

FieldUnit

- ***Station_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Description*** – char
- ***Elevation*** – m
- ***Depth*** – km
- ***Sensor_type*** – char
- ***Sample_rate*** – char
- ***Parameter_unit*** – char
- ***Start*** – datenum
- ***End*** – datenum
- ***X*** – m
- ***Y*** – m
- ***Z*** – m

Files associated with format:

- *GDF_STARFISH_insitu_temperature_stations*

Fields	Station_codename	Description	Lat	Long	Elevation	Sensor_type	Sample_rate	Parameter_unit	Start	End	X	Y	Z
1	'T1'	'Rock tempera...	48.6316	6.3176	76.0510	'PT100'	'12/h'	'Temperature: [Cel...	7.3570e+05	7.3602e+05	2.2140	1.9050	0.020
2	'T2'	'Rock tempera...	48.6316	6.3176	75.8310	'PT100'	'12/h'	'Temperature: [Cel...	7.3570e+05	7.3602e+05	2.2170	1.8970	0.240
3	'T3'	'Rock tempera...	48.6316	6.3176	75.6310	'PT100'	'12/h'	'Temperature: [Cel...	7.3570e+05	7.3602e+05	2.2190	1.8900	0.440
4	'T4'	'Rock tempera...	48.6316	6.3176	75.2710	'PT100'	'12/h'	'Temperature: [Cel...	7.3570e+05	7.3602e+05	2.2240	1.8770	0.800

INTERVAL VELOCITY MODEL

Data details

'd' structure contains fields:

- ***Depth***– vector of real numbers containing the depth of measured velocity
- ***V_int***– vector of real numbers containing the interval velocity information

Optional:

- ***TWT***– vector of real numbers containing two-way-time information

Field details

FieldDescription

- ***Depth*** – Depth of measured velocity (depth of the layer)
- ***V_int***– Interval velocity information

Optional:

- ***TWT***– Two-way-time information

FieldType

- ***Depth***– 20
- ***V_int***– 12

Optional:

- ***TWT***– 20

FieldUnit

- ***Depth***– m
- ***V_int***– m/s

Optional:

- ***TWT***– ms

Files associated with format:

- *GDF_ST_GALLEN_Interval_velocity_model_TWT.mat*

MECHANICAL DATA

Data details

'd' structure contains fields:

- ***Time –*** vector of real numbers specifying measurement time since the beginning of the experiment.

optional:

- ***AE_Rate –*** vector of real numbers containing the number of Acoustic Emission occurrence with time.
- ***Axial_Stress –*** vector of real numbers containing measurements of stress in axial direction
- ***Confining_Pressure –*** vector of real numbers containing measurements of stress uniform in horizontal direction
- ***Injection_Rate –*** vector of real numbers containing the injection rate
- ***Injection_Volume –*** vector of real numbers containing the volume of injected fluid
- ***Pore_Pressure –*** vector of real numbers containing measurements of pore pressure during the experiment
- ***Effective_Normal_Stress –*** vector of real numbers containing estimates of effective normal stress on the saw-cut fault plane
- ***Shear_Stress –*** vector of real numbers containing shear stress on the saw-cut fault plane
- ***Fault_Slip –*** vector of real numbers containing measurements of fault slip on the saw-cut fault plane
- ***Fault_Slip_Velocity –*** vector of real numbers containing measurements of fault slip velocity
- ***Vertical_Strain_Gauge_1 –*** vector of real numbers containing strain measurements in vertical Z direction of strain gauge 1
- ***Vertical_Strain_Gauge_2*** – vector of real numbers containing strain measurements in vertical Z direction of strain gauge 2
- ***Vertical_Strain_Gauge_3*** – vector of real numbers containing strain measurements in vertical Z direction of strain gauge 3
- ***Horizontal_Strain_Gauge_1*** – vector of real numbers containing strain measurements in horizontal direction of strain gauge 1
- ***Horizontal_Strain_Gauge_2*** – vector of real numbers containing strain measurements in horizontal direction of strain gauge 2
- ***Horizontal_Strain_Gauge_3*** – vector of real numbers containing strain measurements in horizontal direction of strain gauge 3

Field details

FieldDescription

- ***Time –*** Time since the beginning of the experiment.

optional:

- ***AE Rate -*** Acoustic Emission Rate with time.
- ***Axial_Stress -*** Axial Stress measured using an internal load cell with an accuracy of +/- 0.05 MPa
- ***Confining_Pressure -*** Uniform horizontal stress measured using an internal load cell
- ***Injection_Rate -*** Fluid Injection Rate
- ***Injection_Volume –*** Volume of Injected Fluid
- ***Pore_Pressure -*** Pore Pressure measured with the system Quizix 6000
- ***Effective_Normal_Stress*** - Effective Normal Stress results from normal stress acting on the saw-cut fault plane minus pore pressure
- ***Shear_Stress*** - Shear Stress resolved on the saw-cut fault plane
- ***Fault_Slip*** – Fault Slip determined from total axial displacement minus deformation of the loading frame and rock matrix
- ***Fault_Slip_Velocity*** – Measured Fault Slip Velocity
- ***Vertical_Strain_Gauge_1*** – Data of vertical strain gauge No. 1
- ***Vertical_Strain_Gauge_2*** – Data of vertical strain gauge No. 2
- ***Vertical_Strain_Gauge_3*** – Data of vertical strain gauge No. 3
- ***Horizontal_Strain_Gauge_1*** – Data of horizontal strain gauge No. 1
- ***Horizontal_Strain_Gauge_2*** – Data of horizontal strain gauge No. 2
- ***Horizontal_Strain_Gauge_3*** – Data of horizontal strain gauge No. 3

FieldType

- ***Time*** – 47, 412

optional:

- ***AE_Rate*** – 36
- ***Axial_Stress*** – 36
- ***Confining_Pressure*** – 36

- ***Injection_Rate*** – 14
- ***Injection_Volume*** – 26
- ***Pore_Pressure*** – 26
- ***Effective_Normal_Stress*** – 26
- ***Shear_Stress*** – 26
- ***Fault_Slip*** – 16
- ***Fault_Slip_Velocity*** – 16
- ***Vertical_Strain_Gauge_1*** – 110
- ***Vertical_Strain_Gauge_2*** – 110
- ***Vertical_Strain_Gauge_3*** – 110
- ***Horizontal_Strain_Gauge_1*** – 110
- ***Horizontal_Strain_Gauge_2*** – 110
- ***Horizontal_Strain_Gauge_3*** – 110

FieldUnit

- ***Time*** – s

optional:

- ***AE_Rate*** – Hz
- ***Axial_Stress*** – MPa
- ***Confining_Pressure*** – MPa
- ***Injection_Rate*** – ml/min
- ***Injection_Volume*** – ml
- ***Pore_Pressure*** – MPa
- ***Effective_Normal_Stress*** – MPa
- ***Shear_Stress*** – MPa
- ***Fault_Slip*** – mm
- ***Fault_Slip_Velocity*** – mm/s
- ***Vertical_Strain_Gauge_1*** – m/m
- ***Vertical_Strain_Gauge_2*** – m/m
- ***Vertical_Strain_Gauge_3*** – m/m
- ***Horizontal_Strain_Gauge_1*** – m/m
- ***Horizontal_Strain_Gauge_2*** – m/m
- ***Horizontal_Strain_Gauge_3*** – m/m

Files associated with format:

- *GDF_Mechanical_Data*

Fields	Time	AE_Rate	Axial_Stress	Confining_Pressure	Injection_Rate	Injection_Volume	Pore_Pressure	Effective_Normal_Stress	Shear_Stress	Fault_Slip	Fault_Slip_Velocity	Vertical_Strain_Gauge_1	Vertical_Strain_Gauge_
1	6.7001e+03	0.2807	64.4932	35.0117	0.0043	83.6023	24.9983	18.1603	13.0076	1.3759	0.0069	0.0069	0.007
2	6.7328e+03	0.2425	64.4188	35.0149	-0.0022	83.6124	24.9935	12.1603	13.0078	1.3759	3.6000e-05	0.0069	0.007
3	6.7122e+03	0.2425	64.4188	35.0149	-0.0065	83.6124	24.9935	12.1603	13.0078	1.3759	-2.0000e-05	0.0069	0.007
4	6.9901e+03	20.7090	60.4032	35.0117	0.4149	83.6023	24.9983	15.1603	11.0076	1.4029	0.0015	0.0071	0.008

MINE AREA

Data details

'd' structure contains fields:

- ***Name*** – vector of char type containing the name of mine area
- ***Lat*** – array of real numbers containing vectors of latitude coordinate [in column]
- ***Long*** – array of real numbers containing vectors of longitude coordinate [in column]

Field details

FieldDescription

- ***Name*** – Mine name
- ***Lat*** – Latitude of the mine boundary
- ***Long*** – Longitude of the mine boundary

FieldType

- ***Name*** – 3
- ***Lat*** – 124

- ***Long*** – 134

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg

Files associated with format:

- *GDF_LGCD_mine_areas [Mine Area]*
- *GDF_USCB_closed_mines_areas [Mine Area]*
- *GDF_USCB_Experimental_Mine_Barbara_mine_area [Mine Area]*
- *GDF_USCB_Jastrzebska_Spolka_Weglowa_SA_mines_areas [Mine Area]*
- *GDF_USCB_Katowicki_Holding_Weglowy_SA_mines_areas [Mine Area]*
- *GDF_USCB_Kompania_Weglowa_SA_mines_areas [Mine Area]*
- *GDF_USCB_KWK_Bobrek_Centrum_mine_area [Mine Area]*
- *GDF_USCB_NWR_KARBONIA_Sp_z_oo_mine_area [Mine Area]*
- *GDF_USCB_coal_mine_areas_in_USCB [Mine Area]*
- *GDF_USCB_Poludniowy_Koncern_Weglowy_SA_mines_areas [Mine Area]*
- *GDF_USCB_ZG_EKO_Plus_Sp_z_oo_mine_area [Mine Area]*
- *GDF_USCB_ZG_SILTECH_Sp_z_oo_mine_area [Mine Area]*

Fields	Name	Lat	Long
1	'KWK Morci...	29x1 double	29x1 double
2	'KWK 1 Maja'	25x1 double	25x1 double
3	'KWK Żory'	17x1 double	17x1 double
4	'KWK Czecz...	20x1 double	20x1 double
5	'KWK Siersza'	11x1 double	11x1 double
6	'KWK Jan K...	35x1 double	35x1 double
7	'KWK Niwk...	39x1 double	39x1 double
8	'KWK Kato...	31x1 double	31x1 double
9	'KWK Kleofas'	46x1 double	46x1 double
10	'KWK Poręb...	53x1 double	53x1 double

MINING FRONT ADVANCE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Lat*** – array of real numbers containing vectors of latitude coordinate [in row]
- ***Long*** – array of real numbers containing vectors of longitude [in row]
- ***Elevation*** – array of real numbers containing vectors of elevation in meters above sea level [in row]

Field details

FieldDescription

- ***Date*** – Time of front advance
- ***Lat*** – Latitude of mining front
- ***Long*** – Longitude of mining front
- ***Elevation*** – Elevation of mining front [meters above sea level]

FieldType

- ***Date*** – 5
- ***Lat*** – 124
- ***Long*** – 134
- ***Elevation*** – 144

FieldUnit

- ***Date*** – datenum
- ***Lat*** – deg
- ***Long*** – deg
- ***Elevation*** – m

Files associated with format:

- *GDF_BOBREK_mining_front_advance_EPSG4326 [Mining Front Advance]*

Fields	Date	Lat	Long	Elevation
1	733875	[50.3606,50....	[18.8670,18....	[-424.7240,-...
2	733894	[50.3606,50....	[18.8670,18....	[-424.9511,-...
3	733925	[50.3600,50....	[18.8670,18....	[-430.4034,-...
4	733955	[50.3594,50....	[18.8670,18....	[-436.5860,-...
5	733986	[50.3586,50....	[18.8670,18....	[-443.2721,-...
6	734017	[50.3577,50....	[18.8670,18....	[-441.1157,-...
7	734047	[50.3569,50....	[18.8670,18....	[-438.8029,-...
8	734078	[50.3561,50....	[18.8670,18....	[-438.5847,-...
9	734108	[50.3553,50....	[18.8670,18....	[-438.9048,-...
10	734139	[50.3547,50....	[18.8670,18....	[-437.9233,-...

MINING POLYGON ADVANCE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Lat*** – array of real numbers containing vectors of latitude coordinate [in row]
- ***Long*** – array of real numbers containing vectors of longitude coordinate [in row]
- ***Elevation*** – array of real numbers containing vectors of elevation in meters above sea level [in row]

Field details

FieldDescription

- ***Date*** – Time of mining polygon advance
- ***Lat*** – Latitude of mining polygon
- ***Long*** – Longitude of mining polygon
- ***Elevation*** – Elevation of mining polygon [meters above sea level]

FieldType

- ***Date*** – 5
- ***Lat*** – 124
- ***Long*** – 134
- ***Elevation*** – 144

FieldUnit

- ***Date*** – datenum
- ***Lat*** – deg
- ***Long*** – deg
- ***Elevation*** – m

Files associated with format:

- *GDF_BOBREK_mining_polygon_advance_EPSG4326 [Mining Polygon Advance]*

Fields	Date	Lat	Long	Elevation
1	734412	[63.6558,63....	[26.0380,26....	[-1.1395e+0...
2	734412	*1x12 double*	*1x12 double*	*1x12 double*
3	734412	[63.6561,63....	[26.0393,26....	[-1.0165e+0...
4	734443	*1x18 double*	*1x18 double*	*1x18 double*
5	734443	[63.6553,63....	[26.0372,26....	[-1.1925e+0...
6	734473	*1x16 double*	*1x16 double*	*1x16 double*
7	734504	*1x14 double*	*1x14 double*	*1x14 double*
8	734535	[63.6554,63....	[26.0397,26....	[-1.0605e+0...
9	734535	*1x18 double*	*1x18 double*	*1x18 double*
10	734563	*1x12 double*	*1x12 double*	*1x12 double*

NATURAL GAS PRODUCTION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Amsweer*** – vector of real numbers specifying gas production of Amsweer cluster
- ***Bierum*** – vector of real numbers specifying gas production of Bierum cluster
- ***De_Eeker*** – vector of real numbers specifying gas production of De Eeker cluster
- ***De_Paauwen*** – vector of real numbers specifying gas production of De Paauwen cluster
- ***Eemskanaal*** – vector of real numbers specifying gas production of Eemskanaal cluster
- ***Kooipolder*** – vector of real numbers specifying gas production of Kooipolder cluster
- ***Leermens*** – vector of real numbers specifying gas production of Leermens cluster
- ***Oudeweg*** – vector of real numbers specifying gas production of Oudeweg cluster
- ***Overschild*** – vector of real numbers specifying gas production of Overschild cluster
- ***Schaapbulten*** – vector of real numbers specifying gas production of Schaapbulten cluster
- ***Scheemderzwaag*** – vector of real numbers specifying gas production of Scheemderzwaag cluster
- ***Siddeburen*** – vector of real numbers specifying gas production of Siddeburen cluster
- ***Slochteren*** – vector of real numbers specifying gas production of Slochteren cluster
- ***Spitsbergen*** – vector of real numbers specifying gas production of Spitsbergen cluster
- ***Ten_Post*** – vector of real numbers specifying gas production of Ten Post cluster
- ***Tjuchem*** – vector of real numbers specifying gas production of Tjuchem cluster
- ***Tusschenklappen*** – vector of real numbers specifying gas production of Tusschenklappen cluster
- ***t_Zandt*** – vector of real numbers specifying gas production of t Zandt cluster
- ***Zuiderpolder*** – vector of real numbers specifying gas production of Zuiderpolder cluster
- ***Zuiderveen*** – vector of real numbers specifying gas production of Zuiderveen cluster

Field details

FieldDescription

- ***Date*** – Date
- ***Amsweer*** – Amsweer
- ***Bierum*** – Bierum
- ***De_Eeker*** – De Eeker
- ***De_Paauwen*** – De Paauwen
- ***Eemskanaal*** – Eemskanaal
- ***Kooipolder*** – Kooipolder
- ***Leermens*** – Leermens
- ***Oudeweg*** – Oudeweg
- ***Overschild*** – Overschild
- ***Schaapbulten*** – Schaapbulten
- ***Scheemderzwaag*** – Scheemderzwaag
- ***Siddeburen*** – Siddeburen
- ***Slochteren*** – Slochteren
- ***Spitsbergen*** – Spitsbergen
- ***Ten_Post*** – Ten Post
- ***Tjuchem*** – Tjuchem
- ***Tusschenklappen*** – Tusschenklappen
- ***t_Zandt*** – t Zandt

- ***Zuiderpolder*** – Zuiderpolder
- ***Zuiderveen*** – Zuiderveen

FieldType

- ***Date*** – 5
- ***Amsweer*** – 12
- ***Bierum*** – 12
- ***De_Eeker*** – 12
- ***De_Paauwen*** – 12
- ***Eemskanaal*** – 12
- ***Kooipolder*** – 12
- ***Leermens*** – 12
- ***Oudeweg*** – 12
- ***Overschild*** – 12
- ***Schaapbulten*** – 12
- ***Scheemderzwaag*** – 12
- ***Siddeburen*** – 12
- ***Slochteren*** – 12
- ***Spitsbergen*** – 12
- ***Ten_Post*** – 12
- ***Tjuchem*** – 12
- ***Tusschenklappen*** – 12
- ***t_Zandt*** – 12
- ***Zuiderpolder*** – 12
- ***Zuiderveen*** – 12

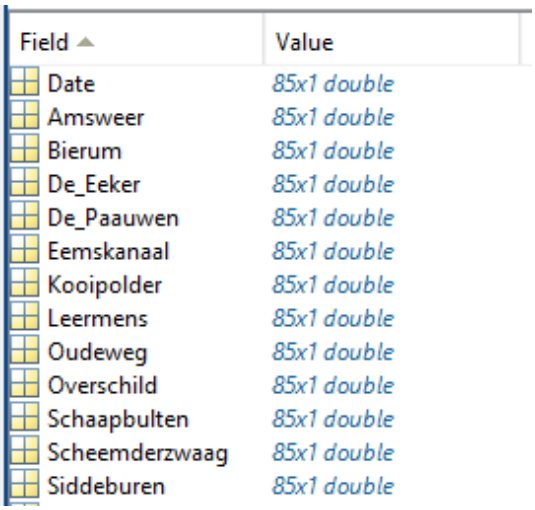
FieldUnit

- ***Date*** – datenum
- ***Amsweer*** – mln Nm^3
- ***Bierum*** – mln Nm^3
- ***De_Eeker*** – mln Nm^3
- ***De_Paauwen*** – mln Nm^3
- ***Eemskanaal*** – mln Nm^3
- ***Kooipolder*** – mln Nm^3
- ***Leermens*** – mln Nm^3
- ***Oudeweg*** – mln Nm^3
- ***Overschild*** – mln Nm^3
- ***Schaapbulten*** – mln Nm^3
- ***Scheemderzwaag*** – mln Nm^3
- ***Siddeburen*** – mln Nm^3
- ***Slochteren*** – mln Nm^3
- ***Spitsbergen*** – mln Nm^3
- ***Ten_Post*** – mln Nm^3
- ***Tjuchem*** – mln Nm^3
- ***Tusschenklappen*** – mln Nm^3
- ***t_Zandt*** – mln Nm^3
- ***Zuiderpolder*** – mln Nm^3
- ***Zuiderveen*** – mln Nm^3

Files associated with format:

GDF_GRONINGEN_natural_gas_production_monthly [Natural Gas Production]

GDF_GRONINGEN_natural_gas_production_yearly [Natural Gas Production]



Field	Value
Date	85x1 double
Amsweer	85x1 double
Bierum	85x1 double
De_Eeker	85x1 double
De_Paauwen	85x1 double
Eemskanaal	85x1 double
Kooipolder	85x1 double
Leermens	85x1 double
Oudeweg	85x1 double
Overschild	85x1 double
Schaapbulten	85x1 double
Scheemderzwaag	85x1 double
Siddeburen	85x1 double

OIL PRODUCTION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Name_1*** – vector of real numbers specifying oil production of Name_1
- ***Name_2***– vector of real numbers specifying oil production of Name_2
- ***...*** – vector of real numbers specifying oil production of ...
- ***Name_N*** – vector of real numbers specifying oil production of Name_N

Field details

FieldDescription

- ***Date*** – Time of oil production
- ***Name_1*** – Oil Production
- ***Name_2*** – Oil Production
- ***...*** – Oil Production
- ***Name_N*** – Oil Production

FieldType

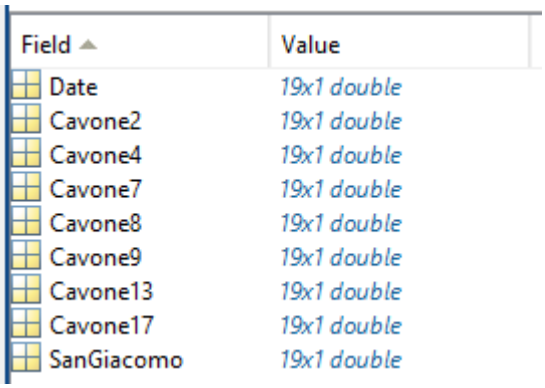
- ***Date*** – 5
- ***Name_1*** – 4
- ***Name_2*** – 4
- ***...*** – 4
- ***Name_N*** – 4

FieldUnit

- ***Date*** – datenum
- ***Name_1*** – m^3
- ***Name_2*** – m^3
- ***...*** – m^3
- ***Name_N*** – m^3

Files associated with format:

GDF_EMILIA_ROMAGNA_oil_production_monthly [Oil Production]



Field	Value
Date	19x1 double
Cavone2	19x1 double
Cavone4	19x1 double
Cavone7	19x1 double
Cavone8	19x1 double
Cavone9	19x1 double
Cavone13	19x1 double
Cavone17	19x1 double
SanGiacomo	19x1 double

PERIODIC GEODETIC MEASUREMENTS

Data details

'd' structure contains fields:

- ***Station_codename***– variable of char type specifying code name of the station/measurement point
- ***Date***– vector of real numbers specifying 'matlab' time
- ***Lat***– variable of real numbers specifying latitude of the station/measurement point
- ***Long***– variable of real numbers specifying longitude of the station/measurement point
- ***Elevation***– variable of real numbers containing elevation in meters above sea level of the station/measurement point
- ***Def_Up***– vector containing geodetic measurements for each station/ measurement point
- ***Def_North***– vector containing geodetic measurements for each station/ measurement point
- ***Def_East***– vector containing geodetic measurements for each station/ measurement point

Optional:

- ***Description*** – variable of char type specifying description of the station/ measurement point
- ***Up_error***– vector containing error in determining the coordinate 'Up' values
- ***North_error***– vector containing error in determining the coordinate 'North' values
- ***East_error***– vector containing error in determining the coordinate 'East' values

Field details

FieldDescription

- ***Station_codename***– code name of the GNSS measurement device
- ***Date***– time of measurement for each GNSS station
- ***Lat***– latitude of the station/ measurement point
- ***Long***– longitude of the station/ measurement point
- ***Elevation***– height of each GNSS station/ measurement point
- ***Def_Up***– vertical deformation for each station
- ***Def_North***– horizontal deformation in „North" direction for each station
- ***Def_East***– horizontal deformation in „East" direction for each station

Optional:

- ***Description*** – description of the GNSS measurement device
- ***Up_error***– error in determining the coordinate „Up" in the topocentric system
- ***North_error***– error in determining the coordinate „North" in the topocentric system
- ***East_error***– error in determining the coordinate „East" in the topocentric system

FieldType

- ***Station_codename***– 3
- ***Date***– 5
- ***Lat***– 124
- ***Long***– 134
- ***Elevation***– 32
- ***Def_Up***– 114
- ***Def_North***– 114
- ***Def_East***– 114

Optional:

- ***Description*** – 3
- ***Up_error***– 14
- ***North_error***– 14
- ***East_error***– 14

FieldUnit

- ***Station_codename***– char
- ***Date***– datenum
- ***Lat***– deg
- ***Long***– deg
- ***Elevation***– m
- ***Def_Up***– m
- ***Def_North***– m
- ***Def_East***– m

Optional:

- ***Description*** – char
- ***Up_error***– m
- ***North_error***– m
- ***East_error***– m

Files associated with format:

- *GDF_MUSE1_Deformation_Monitoring_System_GNSS_campaign.mat*

d

1x86 struct with 12 fields

Fields	Station_codename	Description	Lat	Long	Elevation	Date	Def_Up	Def_North	Def_East	Up_error	North_error	East_error
1	'0901'	'Station0901'	50.3988	18.6265	267.5027	[7.3717e+05...	[0;0.1301;0.0124]	[0;0.0097;0.05...	[0;-0.0290;-...	[0.0834;0.11...	[0.0344;0.0363;...	[0.0699;0.032...
2	'0902'	'Station0902'	50.2477	19.0433	301.8621	[7.3717e+05...	[0;-0.0267;-0.0228...	[0;0.0056;0.01...	[0;0.0115;0....	[0.0190;0.01...	[0.0066;0.0059;...	[0.0049;0.004...
3	'0903'	'Station0903'	50.0463	18.6933	302.8699	[7.3716e+05...	[0;-0.0377;-0.0618...	[0;0.0312;0.04...	[0;-0.0744;-...	[0.1677;0.05...	[0.0782;0.0199;...	[0.0810;0.009...
4	'0904'	'Station0904'	50.2716	19.0263	327.8208	[7.3717e+05...	[0;-0.4366;-0.5035...	[0;0.0108;0.02...	[0;0.0730;0....	[0.1496;0.09...	[0.0529;0.0193;...	[0.0908;0.011...
5	'0905'	'Station0905'	50.0625	18.4672	339.0840	[7.3716e+05...	[0;0.0149;-0.0376;...	[0;0.4716;0.53...	[0;-0.5853;-...	[0.0629;0.05...	[0.0178;0.0166;...	[0.0162;0.014...
6	'0906'	'Station0906'	50.1277	19.1264	299.8203	[7.3717e+05...	[0;0.0430;0.0407]	[0;0.0019;8.20...	[0;0.0153;0....	[0.1488;0.05...	[0.0395;0.0157;...	[0.1111;0.010...

PERIODIC GRAVIMETRIC MEASUREMENTS

Data details

'd' structure contains fields:

- ***Station_codename***– variable of char type specifying code name of the station/measurement point
- ***Date***– vector of real numbers specifying 'matlab' time
- ***Lat***– variable of real numbers specifying latitude of the station/measurement point
- ***Long***– variable of real numbers specifying longitude of the station/measurement point
- ***Elevation***– variable of real numbers containing elevation in meters above sea level of the station/measurement point
- ***Gravity***– vector containing gravitational measuremenst for each station/ measurement point

Optional:

- ***Gradient***– vector containing vertical gradient of gravitational measuremensts for each station/ measurement point
- ***T_U***– vector of total uncertainty values
- ***StdErr***– vector containing standard error values

Field details

FieldDescription

- ***Station_codename***– code name of the station
- ***Date***– date of measurement
- ***Lat***– latitude of the station
- ***Long***– longitude of the station
- ***Elevation***– elevation of the station
- ***Gravity***– gravitational acceleration (absolute/relative)

Optional:

- ***Gradient***– vertical gradient of gravitational acceleration

- ***T_U***– total uncertainty
- ***StdErr***– standard error of measurement

FieldType

- ***Station_codename***– 3
- ***Date***– 5
- ***Lat***– 124
- ***Long***– 134
- ***Elevation***– 32
- ***Gravity***– 196

Optional:

- ***Gradient***– 23
- ***T_U***– 11
- ***StdErr***– 21

FieldUnit

- ***Station_codename***– char
- ***Date***– datenum
- ***Lat***– deg
- ***Long***– deg
- ***Elevation***– m
- ***Gravity***– µGal

Optional:

- ***Gradient***– µGal/m
- ***T_U***– µGal
- ***StdErr***– µGal

Files associated with format:

- *GDF_MUSE1_Relative_Gravity.mat*
- *GDF_MUSE1_Absolute_Gravity.mat*

d

1x96 struct with 7 fields

Fields	Station_codename	Date	Lat	Long	Elevation	Gravity	StdErr
1	'M101'	[737028;737175;737393;737569;737765]	50.2704	19.0256	281.4200	[9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08;981048423]	[5.1000;4.8000;6.4000;3.9000;6.2000]
2	'M102'	[737028;737175;737393;737569;737765]	50.3355	19.0700	283.5410	[9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08]	[2.6000;5.2000;5.2000;1.8000;9.7000]
3	'M103'	[737028;737175;737393;737569;737765]	50.2915	19.0717	256.0740	[9.8106e+08;9.8106e+08;9.8106e+08;9.8106e+08;9.8106e+08]	[8.5000;1.7000;12.6000;6.2000;13]
4	'M104'	[737028;737175;737393;737569;737765]	50.2481	19.0784	276.2990	[9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08]	[5.8000;1.3000;3.2000;0.9000;4.2000]
5	'M105'	[737028;737175;737393;737569;737765]	50.2056	19.0762	297.2250	[9.8104e+08;9.8104e+08;9.8104e+08;9.8104e+08;9.8104e+08]	[5.3000;4.9000;3.1000;2.8000;13.2000]
6	'M106'	[737028;737175;737393;737569;737765]	50.2300	19.1631	243.7220	[9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08;9.8105e+08]	[6.2000;7.7000;7.3000;6.6000;14.5000]

POWER PLANT POSITION

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying code name of the power plant
- ***Lat*** – vector of real numbers specifying latitude of the power plant
- ***Long*** – vector of real numbers specifying longitude of the power plant
- ***ID*** – vector of char type specifying ID of the power plant

Field details

FieldDescription

- ***Name*** – Name of the power plant
- ***Lat*** – Latitude of the power plant
- ***Long*** – Longitude of the power plant
- ***ID*** – ID of the power plant

FieldType

- ***Name*** – 3
- ***Lat*** – 124
- ***Long*** – 134

- ***ID*** – 3

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg
- ***ID*** – char

Files associated with format:

- *GDF_TG_powerplants_position [Powerplant Position]*

Fields	Name	Lat	Long	ID
1	'CALPINE_G...	38.8048	-122.8071	'U5-6'
2	'GEYSERS_7...	38.8144	-122.8006	'U7-8'
3	'GEYSERS_9...	38.7957	-122.7653	'U9-10'
4	'CALPINE_G...	38.8265	-122.7986	'U11'
5	'CALPINE_G...	38.8049	-122.7833	'U12'
6	'CALPINE_G...	38.7701	-122.7278	'U13'
7	'CALPINE_G...	38.7857	-122.7816	'U14'
8	'GEOTHER...	38.7513	-122.7188	'U1'
9	'CALPINE_G...	38.8239	-122.7810	'U17'
10	'CALPINE_G...	38.7684	-122.7460	'U18'

PRODUCTION CLUSTER POSITION

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying name of the production cluster
- ***Lat*** – vector of real numbers specifying latitude of the production cluster
- ***Long*** – vector of real numbers specifying longitude of the production cluster

optional:

- ***Abbreviation*** – vector of char type specifying abbreviation of the production cluster name
- ***X*** – vector of real numbers specifying X coordinate of the production cluster EPSG:28992
- ***Y*** – vector of real numbers specifying Y coordinate of the production cluster EPSG: 28992
- ***ID*** – vector of integer number type specifying ID of the production cluster

Field details

FieldDescription

- ***Name*** – Name of the production cluster
- ***Lat*** – Latitude of the production cluster
- ***Long*** – Longitude of the production cluster

optional:

- ***Abbreviation*** – Abbreviation of the production cluster name
- ***X*** – X coordinate of the production cluster EPSG: 28992
- ***Y*** – Y coordinate of the production cluster EPSG: 28992
- ***ID*** – ID of the production cluster

FieldType

- ***Name*** – 3
- ***Lat*** – 124
- ***Long*** – 134

optional:

- ***Abbreviation*** – 3

- ***X*** – 4
- ***Y*** – 4
- ***ID*** – 2

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Abbreviation*** – char
- ***X*** – m
- ***Y*** – m
- ***ID*** – char

Files associated with format:

- *GDF_GRONINGEN_production_cluster_position [Production Cluster Position]*

Fields	Name	Lat	Long	Abbreviation	X	Y	ID
1	'Amsweer'	53.3000	6.9050	'AMR'	2.5619e+05	5.9146e+05	1
2	'Bierum'	53.3736	6.8863	'BIR'	2.5477e+05	5.9962e+05	2
3	'De Eeker'	53.1721	6.9527	'EKR'	2.5968e+05	5.7729e+05	4
4	'De Paauwen'	53.2732	6.7516	'PAU'	2.4602e+05	5.8827e+05	9
5	'Eemskanaal'	53.2387	6.6843	'EKL'	2.4160e+05	5.8435e+05	3
6	'Kooipolder'	53.2074	6.7624	'KPD'	2.4688e+05	5.8096e+05	5
7	'Leermens'	53.3509	6.8139	'LRM'	2.5000e+05	5.9700e+05	6
8	'Oudeweg'	53.2474	6.9021	'OWG'	2.5612e+05	5.8560e+05	8
9	'Overschild'	53.2957	6.8203	'OVS'	2.5055e+05	5.9086e+05	7
10	'Schaapbult...	53.2717	6.9253	'SCB'	2.5761e+05	5.8834e+05	11

PROPPANT CONCENTRATION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Proppant_concentration*** – vector of real numbers specifying concentration of proppant

Field details

FieldDescription

- ***Date*** – Time of measurement
- ***Proppant_concentration*** – Proppant concentration

FieldType

- ***Date*** – 5
- ***Proppant_concentration*** – 54

FieldUnit

- ***Date*** – datenum
- ***Proppant_concentration*** – kg/m^3

Files associated with format:

- *GDF_PREESEHALL_Proppant_Concentration [Proppant Concentration]*

Field	Value
Date	*7726x1 double*
Proppant_concentration	*7726x1 double*

RADON 222 CONCENTRATION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers specifying 'matlab' time
- ***Radon222*** – vector of real numbers specifying concentration of Radon 222

Field details

FieldDescription

- ***Date*** – Time of measurement
- ***Radon222*** – Radon 222

FieldType

- ***Date*** – 5
- ***Radon222*** – 34

FieldUnit

- ***Date*** – datenum
- ***Radon222*** – Bq/m^3

Files associated with format:

- *GDF_WYSIN_radon222 [Radon 222 Concentration]*

RAY TRACING ANGLES

Data details

'd' structure contains fields:

- ***Epicentral_distance*** – vector of real numbers containing distance from event to point
- ***Depth*** – vector of real numbers containing depth below elevation
- ***Vp*** – vector of real numbers containing velocity of P wave
- ***Distance*** – vector of real numbers containing ray path distance
- ***Take_off_angle*** – vector of real numbers containing take-off angle
- ***Incidence_angle*** – vector of real numbers containing incidence angle

Field details

FieldDescription

- ***Epicentral_distance*** – Distance from event to point
- ***Depth*** – Depth below elevation
- ***Vp*** – Velocity of P wave
- ***Distance*** – Raypath distance
- ***Take_off_angle*** – Take-off angle
- ***Incidence_angle*** – Incidence angle

FieldType

- ***Epicentral_distance*** – 24
- ***Depth*** – 34
- ***Vp*** – 14
- ***Distance*** – 24
- ***Take_off_angle*** – 34
- ***Incidence_angle*** – 24

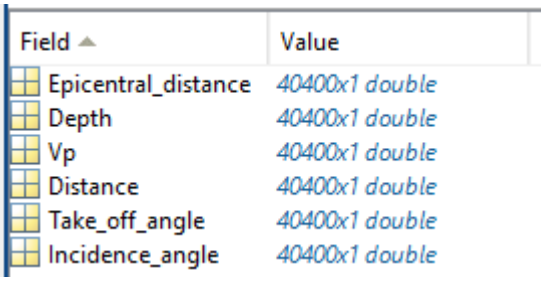
FieldUnit

- ***Epicentral_distance*** – m

- ***Depth*** – m
- ***Vp*** – m/s
- ***Distance*** – m
- ***Take_off_angle*** – angle
- ***Incidence_angle*** – angle

Files associated with format:

- *GDF_BOBREK_ray_tracing_table [Ray Tracing Angles]*
- *GDF_CZORSZTYN_ray_tracing_table [Ray Tracing Angles]*
- *GDF_GS_ray_tracing_table [Ray Tracing Angles]*
- *GDF_LGCD_ray_tracing_table [Ray Tracing Angles]*
- *GDF_SONG_TRANH_ray_tracing_table [Ray Tracing Angles]*
- *GDF_USCB_ray_tracing_table [Ray Tracing Angles]*



RESERVOIR PRESSURE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Reservoir_pressure*** – vector of real numbers containing the reservoir pressure

Field details

FieldDescription

- **Date** – Time of fluid injection
- ***Reservoir_pressure*** – Reservoir pressure

FieldType

- **Date** – 5
- ***Reservoir_pressure*** – 34

FieldUnit

- **Date** – datenum
- ***Reservoir_pressure*** – MPa

Files associated with format:

GDF_LACQ_reservoir_pressure

ROCK TEMPERATURE

Data details

'd' structure contains fields:

- ***Name***– vector of char type specifying name of the well where the measurement took place

- ***Elevation***– array of real numbers containing vectors of elevation values
- ***Temperature***– array of real numbers containing vectors of rock temperature values

Optional:

- ***Depth***– array of real numbers containing vectors of depth values

Field details

FieldDescription

- ***Name*** – Code name of the well where the measurement took place
- ***Elevation***– Elevation in metres above sea level of the rock temperature measurement
- ***Temperature***– Rock temperature

Optional:

- ***Depth*** – Depth of the rock temperature measurement

FieldType

- ***Name***– 3
- ***Elevation***– 4
- ***Temperature***– 22

Optional:

- ***Depth*** – 4

FieldUnit

- ***Name***– char
- ***Elevation***– m
- ***Temperature***– Celsius deg

Optional:

- ***Depth***– m

Files associated with format:

- *GDF_CARBFIX_Rock_Temperature.mat*

SEISMIC STATIONS

If the inventory.xml file is not available for specific seismic network, then GDF file can be used to plot the locations of the seismic stations and create the table with information and parameters of seismic networks.

Data details

'd' structure contains fields:

- ***Station_codename*** – vector of char type specifying code name of the logger
- ***Lat*** – vector of real numbers specifying latitude of the logger
- ***Long*** – vector of real numbers specifying longitude of the logger

optional:

- ***Description*** – vector of char type specifying description of the logger
- ***Elevation*** – vector of real numbers containing elevation above sea level of the logger
- ***Depth*** – vector of real numbers specifying depth of the logger
- ***Sensor_type*** – vector of char type specifying type or name of the logger
- ***Sample_rate*** – vector of char type specifying sample rate of the measurements
- ***Parameter_unit*** – vector of char type specifying measurements parameter information
- ***Start*** – vector of real numbers containing 'matlab' time of start operation of the logger
- ***End*** – vector of real numbers containing 'matlab' time of end operation of the logger

Field details

FieldDescription

- ***Station_codename*** – Code name of the station
- ***Lat*** – Latitude of the station
- ***Long*** – Longitude of the station

- *optional:*
- ***Description*** – Description of the station

- ***Elevation*** – Elevation of the station
- ***Depth-*** Depth of the station

- ***Sensor_type*** – Type of the sensor
- ***Sample_rate*** – Sample rate
- ***Parameter_unit*** – Unit of the parameter
- ***Start*** – Start time of data recording
- ***End*** – End time of data recording

FieldType

- ***Station_codename*** – 3
- ***Lat*** – 124
- ***Long*** –134

optional:

- ***Description*** – 3
- ***Elevation*** – 4
- ***Depth*** – 114
- ***Sensor_type*** – 3
- ***Sample_rate*** – 3
- ***Parameter_unit*** – 3
- ***Start*** – 5
- ***End*** – 5

FieldUnit

- ***Station_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Description*** – char
- ***Elevation*** – m
- ***Depth*** – km
- ***Sensor_type*** – char
- ***Sample_rate*** – char
- ***Parameter_unit*** – char
- ***Start*** – datenum
- ***End*** – datenum

Files associated with format:

- *GDF_GISOS_NC_stations*
- *GDF_STARFISH_NC_stations*
- *GDF_TG_NC_stations*

Fields	Station_codename	Description	Lat	Long	Elevation	Sensor_type	Sample_rate	Parameter_unit	Start	End
1	'LANF'	'Langenberg'	48.9805	7.8056	503	'3-c, seis, 1-c a...	'-'	'-'	727199	73049
2	'SRBF'	'Surbourg'	48.9158	7.8527	201	'3-c accel, 1-c, ...	'-'	'-'	727199	73194
3	'HOFF'	'Hoffen'	48.9413	7.9645	150	'3-c accel, 1-c, ...	'-'	'-'	727199	73194
4	'AUF'	'AufdemSee'	48.9330	7.8034	196	'3-c, seis(Valise)'	'-'	'-'	728186	72822
5	'SCH'	'Schoenenbg'	48.9534	7.9234	170	'3-c, seis(Valise)'	'-'	'-'	728186	72822
6	'KHLa'	'Kuhlendorf'	48.9180	7.9234	172	'3-c, seis(Valise)'	'-'	'-'	728186	72821
7	'KHLb'	'Kuhlendorf'	48.9146	7.9200	179	'3-c, seis(Valise)'	'-'	'-'	728213	72822
8	'1a'	'1a'	48.9360	7.8656	150	'1-c, seis (Tele...	'-'	'-'	728131	72816
9	'1b'	'1b'	48.9364	7.8642	154	'1-c, seis (Tele...	'-'	'-'	728160	72818
10	'1c'	'1c'	48.9565	7.8694	202	'1-c, seis (Tele...	'-'	'-'	728183	72822
11	'2'''	'2'''	48.9377	7.8581	175	'1-c, seis (Tele...	'-'	'-'	728131	72822
12	'3a'	'3a'	48.9394	7.8655	156	'1-c, seis (Tele...	'-'	'-'	728131	72818

SHALLOW GROUNDWATER TEMPERATURE

Data details

'd' structure contains fields:

- ***Name***– vector of char type specifying name of the well where the measurement took place
- ***Depth***– array of real numbers containing vectors of depth values
- ***Temperature***– array of real numbers containing vectors of shallow groundwater temperature values

optional:

- ***Elevation*** – array of real numbers containing vectors of elevation values

Field details

FieldDescription

- ***Name*** – Code name of the well where the measurement took place
- ***Depth***– Depth of the shallow groundwater temperature measurement
- ***Temperature***– Shallow groundwater temperature

Optional:

- ***Elevation***– Elevation in metres above sea level of the shallow groundwater temperature measurement

FieldType

- ***Name***– 3
- ***Depth***– 4
- ***Temperature***– 22

optional:

- ***Elevation***– 4

FieldUnit

- ***Name***– char
- ***Depth***– m
- ***Temperature***– Celsius deg

optional:

- ***Elevation***– m

Files associated with format:

- *GFD_CARBFIX_shallow_groundwater_temperature_KH_02.mat*
- *GDF_CARBFIX_shallow_groundwater_temperature_KH_05.mat*

Fields	Name	Depth	Temperature
1	'KH-02 (19.09.2018)'	*14x1 double*	*14x1 double*
2	'KH-02 (20.09.2018)'	*14x1 double*	*14x1 double*

SHALLOW VELOCITY PROFILE

Data details

'd' structure contains fields:

- ***Name*** – vector of char type specifying code name of the measurement point
- ***Lat*** – vector of real numbers specifying latitude of the measurement point
- ***Long*** – vector of real numbers specifying longitude of the measurement point
- ***Depth*** – array of real numbers containing vectors of depth values [in column]
- ***Vs*** – array of real numbers containing vectors of velocity of S wave values [in column]

optional:

- ***Vp*** – array of real numbers containing vectors of velocity of P wave values [in column]

Field details

FieldDescription

- ***Name*** – Code name of the measurement point
- ***Lat*** – Latitude of the measurement point
- ***Long*** – Longitude of the measurement point
- ***Depth*** – Depth of measured velocity
- ***Vs*** – Velocity of S wave measured at different depths

optional:

- ***Vp*** – Velocity of P wave measured at different depths

FieldType

- ***Name*** – 3
- ***Lat*** – 1
- ***Long*** – 1
- ***Depth*** – 4
- ***Vs*** – 4

optional:

- ***Vp*** – 4

FieldUnit

- ***Name*** – char
- ***Lat*** – deg
- ***Long*** – deg
- ***Depth*** – m
- ***Vs*** – m/s

optional:

- ***Vp*** – m/s

Files associated with format:

- *GDF_MUSE1_shallow_velocity_profile_1*

SHEAR WAVE VELOCITY

Data details

'd' structure contains fields:

- ***Lat*** – vector of real numbers containing Latitude
- ***Long*** – vector of real numbers containing Longitude
- ***Elevation*** – vector of real numbers containing elevation above sea level
- ***Vs30*** – vector of real numbers containing shear wave velocities

Field details

FieldDescription

- ***Lat*** – Latitude of the station
- ***Long*** – Longitude of the station
- ***Elevation*** – Elevation of the station
- ***Vs30*** – 30-meter shear wave velocitiy

FieldType

- ***Lat*** – 124
- ***Long*** – 134
- ***Elevation*** – 144
- ***Vs30*** – 30

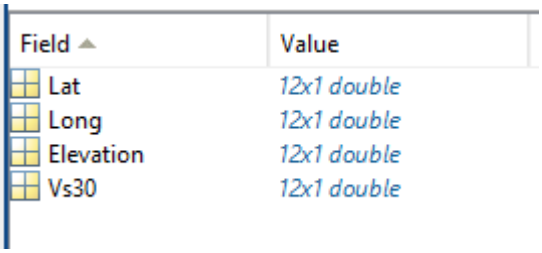
FieldUnit

- ***Lat*** – deg

- **Long** – deg
- ***Elevation*** – m
- ***Vs30*** – m/s

Files associated with format:

- *GDF_USCB_Vs30 [Shear Wave Velocity]*



SHORELINE

Data details

'd' structure contains fields:

- ***Lat*** – vector of real numbers containing latitude
- ***Long*** – vector of real numbers containing longitude

Field details

FieldDescription

- ***Lat*** – Latitude coordinate of the shoreline
- ***Long*** – Longitude coordinate of the shoreline

FieldType

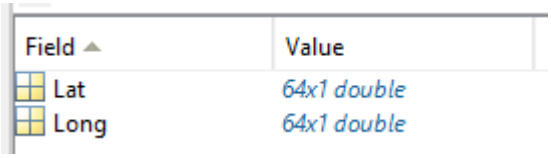
- ***Lat*** – 124
- ***Long*** – 134

FieldUnit

- ***Lat*** – deg
- ***Long*** – deg

Files associated with format:

- *GDF_CZORSZTYN_reservoir_shoreline [Shoreline]*
- *GDF_LGCD_Zelazny_Most_reservoir_shoreline [Shoreline]*
- *GDF_SONG_TRANH_reservoir_shoreline [Shoreline]*



STEAM PRODUCTION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Steam_production*** – vector of real numbers containing steam production

Field details

FieldDescription

- **Date** – Time of steam production
- **Steam_production** – Steam production

FieldType

- **Date** – 5
- **Steam_production** – 6

FieldUnit

- **Date** – datenum
- **Steam_production** – ton

Files associated with format:

- *GDF_TG_total_steam_production [Steam Production]*
- *GDF_TG_total_steam_production_yearly [Steam Production]*

STRAIN GAUGE MEASUREMENT

Data details

'd' structure contains fields:

- ***Station_codename*** – variable of char type specifying code name of the measurement device
- ***Lat*** – variable of real number specifying latitude of logger
- ***Long*** – variable of real number specifying longitude of logger
- ***Date –*** vector containing measurement date for each station

At least one Strain field:

- ***StrainX*** – vector containing strain according X direction gauge orientation for each station
- ***StrainY*** – vector containing strain according Y direction gauge orientation for each station
- ***StrainZ*** – vector containing strain according Z direction gauge orientation for each station

optional:

- ***Depth*** – vector of real numbers specifying depth of logger
- ***Elevation*** – vector of real numbers containing elevation in meters above sea level
- ***X*** – variable of real number specifying X coordinate of logger
- ***Y*** – variable of real number specifying Y coordiante of logger
- ***Z*** – variable of real number specifying Z coordiante of logger

Field details

FieldDescription

- ***Station_codename*** – Code name of the station of measurement (e.g. target points for GPS, tacheometer and anchored borehole extensometer)
- ***Lat*** – Latitude of station/measurement point
- ***Long***– Longitude of station/measurement point
- ***Date*** – Date of measurement for each station

optional:

- ***StrainX*** – Measurement of strain according X direction gauge orientation (describe convention, e.g. positive towards East)
- ***StrainY*** – Measurement of strain according Y direction gauge orientation (describe convention, e.g. positive towards North)
- ***StrainZ*** – Measurement of strain according Z direction gauge orientation (describe convention, e.g. downward negative; upward positive)
- ***Depth*** – Depth of each station from surface
- ***Elevation*** – Elevation of each station in meters above sea level

FieldType

- ***Station_codename*** – 3
- ***Lat*** – 24
- ***Long*** – 14
- ***Date*** – 5

optional:

- ***StrainX*** – 1
- ***StrainY*** – 1
- ***StrainZ*** – 1

- ***Depth*** – 14
- ***Elevation*** – 2

FieldUnit

- ***Station_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg
- ***Date –*** datenum

optional:

- ***StrainX*** – microstrain
- ***StrainY*** – microstrain
- ***StrainZ*** – microstrain
- ***Depth*** – km
- ***Elevation*** – m

Files associated with format:

- *GDF_STARFISH_strain_gauge_measurement*

Fields	Station_codename	Lat	Long	Elevation	X	Y	Z	Date	StrainZ
1	'G01_Z'	48.6316	6.3176	76.0310	2.2150	1.9050	0.0400	34478x1 do...	34478x1 do...
2	'G02_Z'	48.6316	6.3176	76.0010	2.2150	1.9040	0.0700	34478x1 do...	34478x1 do...
3	'G03_Z'	48.6316	6.3176	75.9310	2.2160	1.9010	0.1400	34478x1 do...	34478x1 do...
4	'G04_Z'	48.6316	6.3176	75.9010	2.2160	1.9000	0.1700	34478x1 do...	34478x1 do...
5	'G05_Z'	48.6316	6.3176	75.7310	2.2180	1.8930	0.3400	34478x1 do...	34478x1 do...
6	'G06_Z'	48.6316	6.3176	76.0710	2.6950	1.8500	0	34478x1 do...	34478x1 do...
7	'G07_Z'	48.6316	6.3176	76.0710	2.7150	1.8400	0	34478x1 do...	34478x1 do...
8	'G08_Z'	48.6316	6.3176	76.0710	3.1150	1.8450	0	34478x1 do...	34478x1 do...
9	'G09_Z'	48.6316	6.3176	76.0710	3.1300	1.8500	0	34478x1 do...	34478x1 do...
10	'G10_Z'	48.6316	6.3176	76.0710	3.9150	1.8360	0	34478x1 do...	34478x1 do...
11	'G11_Z'	48.6316	6.3176	76.0710	3.9350	1.8250	0	34478x1 do...	34478x1 do...

STRESS DATA

Data details

'd' structure contains fields:

- ***XX_Stress –*** real numbers specifying modelled stress in XX direction (from stress tensor)
- ***YY_Stress –*** real numbers specifying modelled stress in YY direction (from stress tensor)
- ***ZZ_Stress –*** real numbers specifying modelled stress in ZZ direction (from stress tensor)
- ***XY_Stress –*** real numbers specifying modelled stress in XY direction (from stress tensor)
- ***YZ_Stress –*** real numbers specifying modelled stress in YZ direction (from stress tensor)
- ***ZX_Stress –*** real numbers specifying modelled stress in ZX direction (from stress tensor)

optional:

- ***X*** – real numbers specifying X coordinate of the numerical model
- ***Y*** – real numbers specifying Y coordinate of the numerical model
- ***Z*** – real numbers specifying Z coordinate of the numerical model
- ***Delta_CFS –*** real numbers containing estimates of the change of Coulomb Failure Stress
- ***SHmax –*** real numbers containing estimates of maximum horizontal stress
- ***Azmiuth_of_SHmax –*** real numbers of azimuth of maximum horizontal stress
- ***Shmin –*** real numbers of minimum horizontal stress
- ***Sv –*** real numbers of vertical stress

Field details

FieldDescription

- ***XX_Stress –*** Modelled stress in XX direction, compressive negative
- ***YY_Stress –*** Modelled stress in YY direction, compressive negative
- ***ZZ_Stress –*** Modelled stress in ZZ direction, compressive negative
- ***XY_Stress –*** Modelled stress in XY direction, compressive negative
- ***YZ_Stress –*** Modelled stress in YZ direction, compressive negative

- ***ZX_Stress –*** Modelled stress in ZX direction, compressive negative

optional:

- ***X*** – X coordinate (easting)
- ***Y*** – Y coordinate (northing)
- ***Z*** – Z coordinate (depth)
- ***Delta_CFS*** – Change of Coulomb Failure Stress
- ***SHmax*** – Maximum horizontal stress
- ***Azmiuth_of_SHmax*** – Azimuth of maximum horizontal stress
- ***Shmin*** – Minimum horizontal stress
- ***Sv*** – Vertical stress

FieldType

- ***XX_Stress*** – 252
- ***YY_Stress*** – 252
- ***ZZ_Stress*** – 252
- ***XY_Stress*** – 252
- ***YZ_Stress*** – 252
- ***ZX_Stress*** – 252

optional:

- ***X*** – 252
- ***Y*** – 252
- ***Z*** – 252
- ***Delta_CFS*** – 15
- ***SHmax*** – 14
- ***Azmiuth_of_SHmax*** – 13
- ***Shmin*** – 14
- ***Sv*** – 14

FieldUnit

- ***XX_Stress*** – Pa
- ***YY_Stress*** – Pa
- ***ZZ_Stress*** – Pa
- ***XY_Stress*** – Pa
- ***YZ_Stress*** – Pa
- ***ZX_Stress*** – Pa

optional:

- ***X*** – m
- ***Y*** – m
- ***Z*** – m
- ***Delta_CFS*** – MPa
- ***SHmax*** – MPa
- ***Azmiuth_of_SHmax*** – deg
- ***Shmin*** – MPa
- ***Sv*** – MPa

Files associated with format:

- *GDF_JAGUARS_Stress_Data*

Fields	XX_Stress	YY_Stress	ZZ_Stress	XY_Stress	YZ_Stress	ZX_Stress	X	Y	Z	Delta_CFS	SHmax	Azmiuth_of_SHmax	Shmin	Sv
1	4.2600e+04	-3.1346e+04	-3.6751e+03	-68144900	-83855000	-100362000	14510700	515347	343955	1.5453	92.5012	149.2180	59.4986	101.846(
2	4.2604e+04	-3.1346e+04	-3.6751e+03	-68489600	-84077600	-101585000	13966100	461103	366072	1.2884	92.2782	149.5860	60.2891	101.585(
3	4.2658e+04	-3.1346e+04	-3.6751e+03	-68144900	-83855000	-100362000	14510700	515347	6.9208e+04	-0.8001	92.5012	153.4870	59.4986	100.295(
4	4.2600e+04	-3.1346e+04	-3.6751e+03	-68144900	-83855000	-100362000	14510700	515347	-119538	-1.0916	92.5012	149.2180	61.1232	100.653(

VELOCITY MODEL

Data details

'd' structure contains fields:

- ***Depth*** – vector of real numbers containing the depth of measured velocity (depth of the layer)
- ***Vp*** – vector of real numbers containing the velocity of P wave
- ***Vs*** – vector of real numbers containing the velocity of S wave

optional:

- ***Density*** – vector of real numbers containing density of the rocks in measured layer
- **Qp** – vector of real numbers containing the Q factor of P wave in measured layer
- **Qs** – vector of real numbers containing the Q factor of S wave in measured layer

Field details

FieldDescription

- ***Depth*** – Depth
- ***Vp*** – Velocity of P wave
- ***Vs*** – Velocity of S wave

optional:

- ***Density*** – Density of the rocks
- **Qp** – Q factor of P wave
- **Qs** – Q factor of S wave

FieldType

- ***Depth*** – 34 [20]
- ***Vp*** – 14 [12]
- ***Vs*** – 14 [12]

optional:

- ***Density*** – 14 [12]
- ***Qp*** – 30
- ***Qs*** – 30

FieldUnit

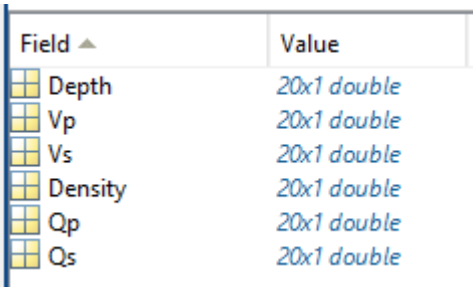
- ***Depth*** – km
- ***Vp*** – km/s
- ***Vs*** – km/s

optional:

- ***Density*** – g/cm^3
- ***Qp*** – dimensionless
- ***Qs*** – dimensionless

Files associated with format:

- *GDF_BOBREK_1D_velocity_model [Velocity Model]*
- *GDF_CZORSZTYN_1D_velocity_model [Velocity Model]*
- *GDF_GS_1D_velocity_model [Velocity Model]*
- *GDF_LGCD_1D_velocity_model [Velocity Model]*
- *GDF_SONG_TRANH_1D_velocity_model [Velocity Model]*
- *GDF_USCB_1D_velocity_model [Velocity Model]*
- *GDF_PREESEHALL_1D_Velocity_Structure [Velocity Model]*



WATER HEIGHT

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Water_height_min***– vector of real numbers containing the minimum water height measured at a defined point

- ***Water_height_max***– vector of real numbers containing the maximum water height measured at a defined point
- ***Water_height_mean***– vector of real numbers containing the mean water height measured at a defined point

Field details

FieldDescription

- **Date** – Date of water height measure
- **Water_height_min** – Minimum water height
- **Water_height_max** – Maximum water height
- **Water_height_mean** – Mean water height

FieldType

- **Date** – 5
- **Water_height_min** – 23
- **Water_height_max** – 23
- **Water_height_mean** – 23

FieldUnit

- **Date** – datenum
- **Water_height_min** – m
- **Water_height_max** – m
- **Water_height_mean** – m

Files associated with format:

- *GDF_Monteynard_Water_Height*

WATER LEVEL

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Water_level*** – vector of real numbers containing the water level measured at a defined point [m above sea level]

Field details

FieldDescription

- **Date** – Date of water level measure
- **Water_level** – Water level above sea level

FieldType

- **Date** – 5
- **Water_level** – 32

FieldUnit

- **Date** – datenum
- **Water_level** – m

Files associated with format:

- *GDF_CZORSZTYN_Water_Level [Water Level]*
- *GDF_SONG_TRANH_Water_Level [Water Level]*

Field	Value
Date	8036x1 double
Water_level	8036x1 double

WATER PRODUCTION

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Water_production*** – vector of real numbers containing water production

Field details

FieldDescription

- **Date** – Time of water production
- **Water_production** – Water production

FieldType

- **Date** – 5
- **Water_production** – 4

FieldUnit

- **Date** – datenum
- **Water_production** – m^3

Files associated with format:

- *GDF_EmiliaRomagna_water_production [Water Production]*

Field	Value
Date	379x1 double
Water_production	379x1 double

WATER STATIONS

Data details

'd' structure contains fields:

- ***Station_codename*** – vector of char type specifying code name of the measurement device
- ***Lat*** – vector of real numbers specifying latitude of logger
- ***Long*** – vector of real numbers specifying longitude of logger

optional:

- ***Description*** – vector of char type specifying description of the logger
- ***Elevation*** – vector of real numbers containing elevation above sea level of the logger
- ***Depth*** – vector of real numbers specifying depth of the logger
- ***Sensor_type*** – vector of char type specifying type or name of the logger
- ***Sample_rate*** – vector of char type specifying sample rate of the measurements
- ***Parameter_unit*** – vector of char type specifying measurements parameter information
- ***Start*** – vector of real numbers containing 'matlab' time of start operation of the logger
- ***End*** – vector of real numbers containing 'matlab' time of end operation of the logger

Field details

FieldDescription

- ***Station_codename*** – Code name of the station
- ***Lat*** – Latitude of the station
- ***Long*** – Longitude of the station

optional:

- ***Description*** – Description of the station
- ***Elevation*** – Elevation of the station
- ***Depth*** – Depth of the station
- ***Sensor_type*** – Type of the sensor
- ***Sample_rate*** – Sample rate
- ***Parameter_unit*** – Unit of the parameter
- ***Start*** – Start time of data recording
- ***End*** – End time of data recording

FieldType

- ***Station_codename*** – 3
- ***Lat*** – 124
- ***Long*** –134

optional:

- ***Description*** – 3
- ***Elevation*** – 4
- ***Depth*** – 114
- ***Sensor_type*** – 3
- ***Sample_rate*** – 3
- ***Parameter_unit*** – 3
- ***Start*** – 5
- ***End*** – 5

FieldUnit

- ***Station_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Description*** – char
- ***Elevation*** – m
- ***Depth*** – km
- ***Sensor_type*** – char
- ***Sample_rate*** – char
- ***Parameter_unit*** – char
- ***Start*** – datenum
- ***End*** – datenum

Files associated with format:

- *GDF_LUBOCINO_water_stations [Water Stations]*
- *GDF_WYSIN_water_level_loggers_location [Water Stations]*

Fields	Station_codename	Description	Lat	Long	Depth	Sensor_type	Sample_rate	Parameter_unit	Start	End
1	'L9'	'Water monito...	54.7262	18.1418	0.0924	'SLANDI Photo...	'3 times in 1969...	'PHYSICAL WATE...	719468	73480
2	'L10'	'Water monito...	54.7229	18.1364	0.0850	'SLANDI Photo...	'2 times in 2011'	'PHYSICAL WATE...	734674	73480
3	'L11'	'Water monito...	54.7173	18.1391	0.0885	'SLANDI Photo...	'5 times in 2011...	'PHYSICAL WATE...	734674	73569
4	'L13'	'Water monito...	54.7251	18.1533	0.1028	'SLANDI Photo...	'3 times in 2012...	'PHYSICAL WATE...	735222	73569
5	'K1'	'Water monito...	54.7383	18.1466	0.1058	'SLANDI Photo...	'4 times in 1983...	'PHYSICAL WATE...	724638	73569
6	'T1'	'Water monito...	54.7134	18.1240	0.0100	'SLANDI Photo...	'4 times in 1993...	'PHYSICAL WATE...	728050	73569
7	'P-0'	'Water monito...	54.7197	18.1471	0.1049	'SLANDI Photo...	'4 times in 2012...	'PHYSICAL WATE...	728255	73569
8	'P-1a'	'Water monito...	54.7200	18.1464	0.1025	'SLANDI Photo...	'4 times in 2012...	'PHYSICAL WATE...	735204	73569
9	'P-2'	'Water monito...	54.7200	18.1463	0.1025	'SLANDI Photo...	'4 times in 2012...	'PHYSICAL WATE...	728255	73569
10	'L12'	'Water monito...	54.7229	18.1376	NaN	'SLANDI Photo...	'2 times in 2011'	'PHYSICAL WATE...	734674	73480

WATER VOLUME

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Water_volume*** – vector of real numbers containing the water volume measured at a defined point [mln m^3]

Field details

FieldDescription

- ***Date*** – Date of water volume measure
- ***Water_volume*** – Water volume

FieldType

- ***Date*** – 5
- ***Water_volume*** – 32

FieldUnit

- ***Date*** – datenum
- ***Water_volume*** – mln m^3

Files associated with format:

- *GDF_CZORSZTYN_Water_Volume [Water Volume]*

WELL PATH

Data details

'd' structure contains fields:

- ***Lat*** –vector of real numbers specifying latitude
- ***Long*** –vector of real numbers specifying longitude
- ***Elevation*** – vector of real numbers containing elevation in meters above sea level

optional:

- ***Depth*** – vector of real numbers specifying depth of the logger
- ***Well_codename*** – vector of char type specifying name of the well
- ***Azimuth*** – vector of real numbers specifying current azimuth of the well
- ***Dip*** – vector of real numbers specifying current dip of the well
- ***Length_point*** – vector of real numbers specifying distance in the pipe from the surface

Field details

FieldDescription

- ***Lat*** – Latitude of the borehole`s trajectory
- ***Long*** – Longitude of the borehole`s trajectory
- ***Elevation*** – Elevation of the borehole`s trajectory

optional:

- ***Depth –*** Depth of the borehole`s trajectory
- ***Well_codename*** – Code name of the well
- ***Azimuth*** – Current azimuth of the well
- ***Dip*** – Current dip of the well
- ***Length_point*** – Distance in the pipe from the surface

FieldType

- ***Lat*** – 124
- ***Long*** – 134
- ***Elevation*** – 144

optional:

- ***Depth*** - *114*
- ***Well_codename*** – 3
- ***Azimuth*** – 4
- ***Dip*** – 4
- ***Length_point*** – 4

FieldUnit

- ***Lat*** – deg

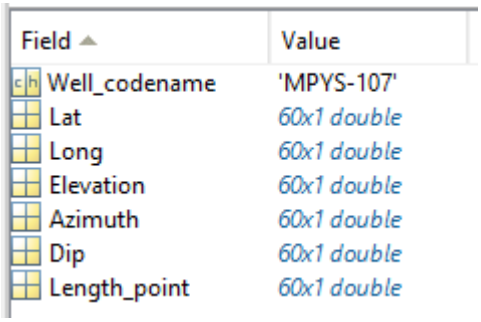
- ***Long*** – deg
- ***Elevation*** – m

optional:

- ***Depth*** - *km*
- ***Well_codename*** – char
- ***Azimuth*** – deg
- ***Dip*** – deg
- ***Length_point*** – m

Files associated with format:

- *GDF_GS_Trajectory_of_GS3_borehole [Well Path]*
- *GDF_GS_Trajectory_of_GS4_borehole [Well Path]*
- *GDF_PREESEHALL_Well_Trajectory [Well Path]*
- *GDF_PYHASALMI_Well_path… [Well Path]*
- *GDF_WYSIN_hydrological_well_path… [Well Path]*



WELL POSITION

Data details

'd' structure contains fields:

- ***Well_codename*** – vector of char type specifying code name of the station
- ***Lat*** – vector of real numbers specifying latitude of the well
- ***Long*** – vector of real numbers specifying longitude of the well

optional:

- ***Depth*** – vector of real numbers specifying depth of the well
- ***Operator_name*** – vector of char type specifying operator name of the well
- ***Well_number*** – vector of char type specifying well number
- ***Lease_name*** – vector of char type specifying lease name
- ***Year_drilling*** – vector of real numbers specifying year of well drilling
- ***Well_type*** – vector of char type specifying type of well
- ***District*** – vector of real numbers specifying district
- ***Status*** – vector of char type specifying status
- ***Status_code*** – vector of char type specifying status code
- ***Section*** – vector of real numbers specifying section
- ***Township*** – vector of char type specifying township
- ***Range*** – vector of char type specifying range
- ***Base_meridian*** – vector of char type specifying base meridian
- ***Source_code*** – vector of char type specifying source code
- ***Well_name*** – vector of char type specifying well name
- ***Formation_code*** – vector of char type specifying formation code
- ***Formation_name*** – vector of char type specifying formation name
- ***Formation_bottom_depth*** – vector of real numbers specifying depth of the bottom of the formation
- ***Formation_top_depth*** – vector of real numbers specifying depth of the top of the formation

Field details

FieldDescription

- ***Well_codename*** – Code name of the well (…/description)
- ***Lat*** – Latitude of the well
- ***Long*** – Longitude of the well

optional:

- ***Depth*** – Depth of the well
- ***Operator_name*** – Well operator name
- ***Well_number*** – Well number
- ***Lease_name*** – Lease name
- ***Year_drilling*** – Year of drilling
- ***Well_type*** – Type od well (…/description)
- ***District*** – District (…/description)
- ***Status*** – Well status (…/description)
- ***Status_code*** – Well status code (…/description)
- ***Section*** – Section
- ***Township*** – Township
- ***Range*** – Range
- ***Base_meridian*** – Base meridian
- ***Source_code*** – Source code
- ***Well_name*** – Well name
- ***Formation_code*** – Code of the formation
- ***Formation_name*** – Name of the formation
- ***Formation_bottom_depth*** – Depth of the botton of the formation
- ***Formation_top_depth*** – Depth of the top of the formation

FieldType

- ***Well_codename*** – 3
- ***Lat*** – 124
- ***Long*** – 134

optional:

- ***Depth*** – 34
- ***Operator_name*** – 3
- ***Well_number*** – 3
- ***Lease_name*** – 3
- ***Year_drilling*** – 2
- ***Well_type*** – 3
- ***District*** – 2
- ***Status*** – 3
- ***Status_code*** – 3
- ***Section*** – 2
- ***Township*** – 3
- ***Range*** – 3
- ***Base_meridian*** – 3
- ***Source_code*** – 3
- ***Well_name*** – 3
- ***Formation_code*** – 3
- ***Formation_name*** – 3
- ***Formation_bottom_depth*** – 24
- ***Formation_top_depth*** – 24

FieldUnit

- ***Well_codename*** – char
- ***Lat*** – deg
- ***Long*** – deg

optional:

- ***Depth*** – km
- ***Operator_name*** – char
- ***Well_number*** – char
- ***Lease_name*** – char
- ***Year_drilling*** – year
- ***Well_type*** – char
- ***District*** – dimensionless
- ***Status*** – char
- ***Status_code*** – char
- ***Section*** – dimensionless
- ***Township*** – char
- ***Range*** – char
- ***Base_meridian*** – char
- ***Source_code*** – char

- ***Well_name*** – char
- ***Formation_code*** – char
- ***Formation_name*** – char
- ***Formation_bottom_depth*** – km
- ***Formation_top_depth*** – km

Files associated with format:

- *GDF_LUBOCINO_well_position [Well Position]*
- *GDF_TG_injection_wells_position [Well Position]*
- *GDF_TG_wells_data_for_California [Well Position]*
- *GDF_WYSIN_well_position [Well Position]*
- *GDF_OKLAHOMA_wells_position.mat [Well Position]*

Fields	Well_codename	Lat	Long	Depth	Operator_name	Well_name	Well_number	Well_type	Status_code	Formation_code	Formation_name	Formation_bottom_depth	Formation_top_depth
1	'3500300026'	36.9003	-98.2183	1.5277	'PHOENIX PETROC...	'SE EUREKA U...	'21'	'2Rln'	'AC'	'404CHRK'	'CHEROKEE'	1.5051	1.4999e+0
2	'3500300163'	36.8966	-98.1777	1.5423	'CHAMPLIN EXPL...	'CHRISTENSEN'	'1'	'2Rln'	'AC'	[]	'REDFORK'	1.5222	1.5191e+0
3	'3500320145'	36.5048	-98.4332	2.0422	'CONTINENTAL RE...	'SINGREE'	'1'	'2DCm'	'AC'	'405CGGV'	'COTTAGE GROVE'	1.7038	1.5697e+0
4	'3500320786'	36.8061	-98.3258	1.5993	'LINN OPERATING ...	'NE CHEROKE...	'85'	'2Rln'	'AC'	'404RDFK'	'RED FORK'	1.5758	1.5673e+0
5	'3500320929'	36.9628	-98.5196	1.9806	'CHAPARRAL ENE...	'R & H'	'1'	'2DNC'	'AC'	'169ABCK'	'ARBUCKLE'	1.9276	1.9257e+0
6	'3500321074'	36.8886	-98.3185	1.8081	'SANDRIDGE EXPL...	'VELMA'	'-17'	'2Rln'	'AC'	[]	'REDFORK'	1.5155	1.5112e+0
7	'3500321081'	36.8903	-98.1833	1.5600	'CHAMPLIN EXPL...	'HOLLAND'	'-19'	'2Rln'	'AC'	[]	'REDFORK'	1.5237	1.5197e+0
8	'3500321107'	36.8921	-98.1946	1.5197	'CHAMPLIN EXPL...	'GRAY'	'1A'	'2Rln'	'AC'	[]	'REDFORK'	1.5060	1.5027e+0
9	'3500321242'	36.5918	-98.4636	1.8907	'PARADIGM PETR...	'NORTH CAR...	'8'	'2Rln'	'AC'	'404RDFK'	'RED FORK'	1.8489	1.8462e+0
10	'3500321328'	36.6741	-98.5157	2.2317	'PRIDE ENERGY C...	'LESLIE'	'A-1'	'2DNC'	'AC'	'459PRMN'	'PERMIAN'	0.7955	780.288

WELLHEAD PRESSURE

Data details

'd' structure contains fields:

- ***Date*** – vector of real numbers containing 'matlab' time
- ***Wellhead_pressure*** – vector of real numbers containing the wellhead pressure

Field details

FieldDescription

- **Date** – Time of wellhead pressure
- ***Wellhead_pressure*** – Wellhead pressure

FieldType

- **Date** – 5
- **Wellhead_pressure –** 34

FieldUnit

- **Date** – datenum
- **Wellhead_pressure** – MPa

Files associated with format:

- *GDF_GS_Wellhead_Pressure [Wellhead Pressure]*
- *GDF_PREESEHALL_Wellhead_Pressure [Wellhead Pressure]*

Field	Value
Date	*7726x1 double*
Wellhead_pressure	*7726x1 double*

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