

LLC "INTERPROJECT GMBH"

E O L +

Edition 5.23

Calculation

Of the pollutant substances dispersion into atmosphere for

Project «CONSTRUCTION OF THE DUCK FARM ON THE TERRITORY OF THE EVMYNKA VILLAGE COUNCIL OF THE KOZELETSKYI DISTRICT IN THE CHERNIGIV REGION»

Perspective

BOOK 1

Arch. №

KYIV - 2 0 14

Executors list:

Chief engineer of the project

Nerekov V.

Engineer-designer

Sapura O.

Task for calculation.

Calculation is made via EOL+, edition 5.23.

TABLE 1. Production sites list.

Production site code	Name of the production site
1	CONSTRUCTION OF THE DUCK FARM ON THE TERRITORY OF THE EVMYNKA VILLAGE COUNCIL OF THE KOZELETSKYI DISTRICT IN THE CHERNIGIV REGION

Task for calculation.

Substance code	Name of the substance	MAC, mg/m ³	Class of danger	Orderly subsidence coefficient	Capacity of the pollutants emission t/annum	
					g/s	t/annum
1	Metallic mercury	0,003	1	1	0,00001688	0,0002736
2	Nitrogen dioxide	0,2	3	1	1,0284	16,616
3	Ammonia	0,2	4	1	0,6944	19,80217704
4	Nitrogen oxide	0,4	3	1	0,001688	0,02736
5	Hydrogen sulfide	0,008	2	1	0,005184	0,16368168
6	Carbon monoxide	5,0	4	1	3,806424	61,50616472
7	Methane	50,0	ESLE	1	2,612392	6,847192
8	Phenol	0,01	2	1	0,244576	0,04262088
9	Dimethyl	0,08	4	1	0,01224	0,38682592
10	Monomethylamin	0,004	2	1	0,007896	3,55625168

11	Solid suspended undifferentiated by the composition particles	0,5	3	1	1,8312	43,6747768
Total					10,24441688	152,6233243

Necessity of the emission control at the site by the substance calculation

Table 3.6

N	Code of the substance	Name of the substance	Average height m	Emission by enterprise		MAC mg/m ³	M/MAC/N if N>10 M/MAC if N <10	Notes
				g/s	t/annum			
1	2	3	4	5	6	7	8	9
1	183	Metallic mercury	10,0	0,00000211	0,00003420	0,003	0,0007	
2	301	Nitrogen dioxide	10,0	0,12855000	2,07700000	0,2	0,64	Control
3	303	Ammonia	10,0	0,08680000	2,47527213	0,2	0,43	Control
4	304	Nitrogen oxide	10,0	0,00021100	0,00342000	0,4	0,00053	
5	333	Hydrogen sulfide	10,0	0,00064800	0,02046021	0,008	0,081	
6	337	Carbon monoxide	10,0	0,47580300	7,68827059	5,0	0,095	
7	410	Methane	10,0	0,32654900	0,85589900	50,0	0,0065	
8	1071	Phenol	10,0	0,03057200	0,00532761	0,01	3,0572	Control
9	1707	Dimethyl	10,0	0,00153000	0,04835324	0,08	0,019	
10	1849	Monomethylamin	10,0	0,00098700	0,44453146	0,004	0,25	Control
11	3000	Solid suspended undifferentiated by the composition particles	10,0	0,22890000	5,45934710	0,5	0,46	Control

Coefficient of the expediency of the EOM dispersion calculation

Table 3.1

N	Name of the pollutant substance	Expediency of the dispersion calculation /yes or no/ M/MAC > F
1	2	3
1	Metallic mercury	No
2	Nitrogen dioxide	Yes
3	Ammonia	Yes
4	Nitrogen oxide	No
5	Hydrogen sulfide	No
6	Carbon monoxide	No

7		Methane	No
8		Phenol	Yes
9		Dimethyl	No
10		Monomethylamin	Yes
11	Solid suspended undifferentiated by the composition particles		Yes

Task for calculation.

TABLE 4. Parameters of the calculation sites.

N	Coord. Center		Length, m	Width, m	Net step		Angle of rotation of site in respect of OX axis of the general coordinate system degrees	Feture Of the zone
	X, m	Y, m			OX axis, m	OY axis, m		
1	450	250	2000	2000	50	50	0	0

TABLE 5. Task for calculation.

Name of the city	Wind speed, m/s					Wind speed, shares (Umc)					Step busting of the dangerous directions of wind	Fixed wind direction	Amount of the biggest	Max concentration	Feature of the background calculation	
	1	2	3	4	5	1	2	3	4	5						
Evmynka	0.5					0.5	1	1.5			10		Add.	5	10	1

TABLE 1. Meteorological conditions description and geographical reference

Code of the city	Name of the city	Average air temperature		Marginal wind speed, m/s	Regional coefficient of the strat. Apmosphere	Angle between N direction and OX axis, degrees	Square of the city, km ²	Necessary concentration level in point (in shares MAC)
		Warmest day of the month degrees C	Coldest day of the month degrees C					
1	Evmynka	18.7	-7.1	3.8	180	0	40	1

TABLE 7. Description of the background concentration distribution (U – wind speed m/s)

Code of the city	Code of the substance	Task of the background	Coordination of the monitor point		Conc. (in shares MAC) if $U \leq 2$	Concentration (in shares MAC) if $2 < U < U^*$ by the directions								
			X, m	Y, m		N	NE	E	SE	S	SW	W	NW	
1	301	a			0.1									
1	303	a			0.1									
1	337	a			0.08									
1	410	a			0.1									
1	3000	a			0.1									

TABLE 3. Sources of hazardous substances emission description

Code of the city	Code of the production site	Code of the source	Name of the source	Code of the model or angle between the OX axis and the length of the source	Relief coeff.	Coord. Of the point or beginning of the linear source or center of the symmetry of the site		Coord. Of the end of the linear or length and width of the site or point with rectangular mouth		Height of the source, m	Diameter of the point or site 2 nd type or speed of emission PHVS (Wo) for linear, (for site. 1 st type - 0)	Expense of PHVS, (for site 1 st type - 0)	Temperature of PHVS (degrees C)	Class of the danger
						X1, m	Y1, m	X2, m	Y2, m					
1	1	1	Hatchery	444	1	500	280	0	0	7	0.5	3.8	20	2
1	1	2	Hatchery	444	1	450	279	0	0	7	0.5	3.8	20	2
1	1	3	Hatchery	444	1	445	280	0	0	7	0.5	3.8	20	2
1	1	4	Hatchery	444	1	443	280	0	0	7	0.5	3.8	20	2
1	1	5	Hatchery	444	1	420	280	0	0	7	0.5	3.8	20	2
1	1	6	Hatchery	444	1	500	279	0	0	7	0.5	3.8	20	2
1	1	7	Hatchery	444	1	450	260	0	0	7	0.5	3.8	20	2
1	1	8	Hatchery	444	1	450	250	0	0	7	0.5	3.8	20	2
1	1	9	Hatchery	444	1	455	249	0	0	7	0.5	3.8	20	2
1	1	10	Hatchery	444	1	440	265	0	0	7	0.5	3.8	20	2
1	1	11	Hopper for fodder	444	1	480	260	0	0	7	0.5	3.8	20	2
1	1	12	Hopper for fodder	444	1	450	260	0	0	7	0.5	3.8	20	2
1	1	13	Hopper for fodder	444	1	445	260	0	0	7	0.5	3.8	20	2
1	1	14	Hopper for fodder	444	1	435	260	0	0	7	0.5	3.8	20	2
1	1	15	Hopper for fodder	444	1	430	260	0	0	7	0.5	3.8	20	2

1	1	16	Hopper for fodder	444	1	435	250	0	0	7	0.5	3.8	20	2
1	1	17	Hopper for fodder	444	1	445	250	0	0	7	0.5	3.8	20	2
1	1	18	Hopper for fodder	444	1	450	250	0	0	7	0.5	3.8	20	2
1	1	19	Hopper for fodder	444	1	480	250	0	0	7	0.5	3.8	20	2
1	1	20	Hopper for fodder	444	1	435	250	0	0	7	0.5	3.8	20	2

TABLE 4. Characteristics of the composition of the emission

Code of the city	Code of the production site.	Code of the source	Code substance	Total emission t/annum	Orderly subsidence coeff.	Max emission (g/s) at the wind speed								
						0.5 m/c	1 m/s	2 m/s	4 m/s	6 m/s	8 m/s	10 m/s	12 m/s	14 m/s
1	1	1	183	3.42E-6	1	2.11E-7								
1	1	1	301	0.2077	1	0.012855								
1	1	1	303	0.27373248	1	0.00868								
1	1	1	304	0.000342	1	2.11E-5								
1	1	1	333	0.002270592	1	7.2E-5								
1	1	1	337	0.854	1	0.052859								
1	1	1	410	0.000211	1	0.03041								
1	1	1	1071	0.000567648	1	1.8E-5								
1	1	1	1707	0.005298048	1	0.000168								
1	1	1	1849	0.002869776	1	9.1E-5								
1	1	1	3000	0.4162752	1	0.0132								
1	1	2	183	3.42E-6	1	2.11E-7								
1	1	2	301	0.2077	1	0.012855								
1	1	2	303	0.27373248	1	0.00868								
1	1	2	304	0.000342	1	2.11E-5								
1	1	2	333	0.002270592	1	7.2E-5								
1	1	2	337	0.854	1	0.052859								
1	1	2	410	0.000211	1	0.03041								
1	1	2	1071	0.000567648	1	1.8E-5								
1	1	2	1707	0.005298048	1	0.000168								
1	1	2	1849	0.002869776	1	9.1E-5								
1	1	2	3000	0.4162752	1	0.0132								
1	1	3	183	3.42E-6	1	2.11E-7								
1	1	3	301	0.2077	1	0.012855								
1	1	3	303	0.27373248	1	0.00868								
1	1	3	304	0.000342	1	2.11E-5								

1	1	3	333	0.002276813	1	7.2E-5													
1	1	3	337	0.854	1	0.052859													
1	1	3	410	0.000211	1	0.03041													
1	1	3	1071	0.000567648	1	1.8E-5													
1	1	3	1707	0.005312563	1	0.000168													
1	1	3	1849	0.002869776	1	9.1E-5													
1	1	3	3000		1	0.0132													
1	1	4	183	3.42E-6	1	2.11E-7													
1	1	4	301	0.2077	1	0.012855													
1	1	4	303	0.274482432	1	0.00868													
1	1	4	304	0.000342	1	2.11E-5													
1	1	4	333	0.002270592	1	7.2E-5													
1	1	4	337	0.854	1	0.052859													
1	1	4	410	0.000211	1	0.03041													
1	1	4	1071	0.000569203	1	1.8E-5													
1	1	4	1707	0.005312563	1	0.000168													
1	1	4	1849	0.002869776	1	9.1E-5													
1	1	4	3000		1	0.0132													
1	1	5	183	3.42E-6	1	2.11E-7													
1	1	5	301	0.2077	1	0.012855													
1	1	5	303	0.274482432	1	0.00868													
1	1	5	304	0.000342	1	2.11E-5													
1	1	5	333	0.002276813	1	7.2E-5													
1	1	5	337	0.854	1	0.052859													
1	1	5	410	0.000211	1	0.03041													
1	1	5	1071	0.000569203	1	1.8E-5													
1	1	5	1707	0.005312563	1	0.000168													
1	1	5	1849	0.002869776	1	9.1E-5													
1	1	5	3000	0.4162752	1	0.0132													
1	1	6	183	3.42E-6	1	2.11E-7													
1	1	6	301	0.2077	1	0.012855													
1	1	6	303	0.27373248	1	0.00868													
1	1	6	304	0.000342	1	2.11E-5													
1	1	6	333	0.002276813	1	7.2E-5													
1	1	6	337	0.854	1	0.052859													
1	1	6	410	0.000211	1	0.03041													
1	1	6	1071	0.000569203	1	1.8E-5													
1	1	6	1707	0.005312563	1	0.000168													
1	1	6	1849	0.002869776	1	9.1E-5													
1	1	6	3000		1	0.0132													
1	1	7	183	3.42E-6	1	2.11E-7													

1	1	7	301	0.2077	1	0.012855													
1	1	7	303	0.27373248	1	0.00868													
1	1	7	304	0.000342	1	2.11E-5													
1	1	7	333	0.002270592	1	7.2E-5													
1	1	7	337	0.854	1	0.052859													
1	1	7	410	0.000211	1	0.03041													
1	1	7	1071	0.000569203	1	1.8E-5													
1	1	7	1707	0.005312563	1	0.000168													
1	1	7	1849	0.002869776	1	0.000168													
1	1	7	3000	0.0132	1	0.0132													
1	1	8	183	3.42E-6	1	2.11E-7													
1	1	8	301	0.2077	1	0.012855													
1	1	8	303	0.274482432	1	0.00868													
1	1	8	304	0.000342	1	2.11E-5													
1	1	8	333	0.002270592	1	7.2E-5													
1	1	8	337	0.854	1	0.052859													
1	1	8	410	0.000211	1	0.03041													
1	1	8	1071	0.000567648	1	1.8E-5													
1	1	8	1707	0.005312563	1	0.000168													
1	1	8	1849	0.002869776	1	9.1E-5													
1	1	8	3000	0.4162752	1	0.0132													
1	1	9	183	3.42E-6	1	2.11E-7													
1	1	9	301	0.2077	1	0.012855													
1	1	9	303	0.274482432	1	0.00868													
1	1	9	304	0.000342	1	2.11E-5													
1	1	9	337	0.002270592	1	7.2E-5													
1	1	9	410	0.854	1	0.052859													
1	1	9	1071	0.000211	1	0.03041													
1	1	9	1707	0.000569203	1	1.8E-5													
1	1	9	1849	0.005298048	1	9.1E-5													
1	1	9	3000	0.4162752	1	0.0132													
1	1	10	183	3.42E-6	1	2.11E-7													
1	1	10	301	0.2077	1	0.012855													
1	1	10	303	0.00868	1	0.00868													
1	1	10	304	0.000342	1	2.11E-5													
1	1	10	333	0.002276813	1	7.2E-5													
1	1	10	337	0.854	1	0.052859													
1	1	10	410	0.000211	1	0.03041													
1	1	10	1071	0.000569203	1	1.8E-5													
1	1	10	1707	0.005312563	1	0.000168													
1	1	10	1849	0.4162752	1	9.1E-5													

1	1	10	3000	0.30558384	1	0.0132									
1	1	11	3000	0.30558384	1	0.00969									
1	1	12	3000	0.30558384	1	0.00969									
1	1	13	3000	0.30558384	1	0.00969									
1	1	14	3000	0.30558384	1	0.00969									
1	1	15	3000	0.30558384	1	0.00969									
1	1	16	3000	0.30558384	1	0.00969									
1	1	17	3000	0.306421056	1	0.00969									
1	1	18	3000	0.306421056	1	0.00969									
1	1	19	3000	0.306421056	1	0.00969									
1	1	20	3000	0.306421056	1	0.00969									

Substance 301 (Nitrogen dioxide)

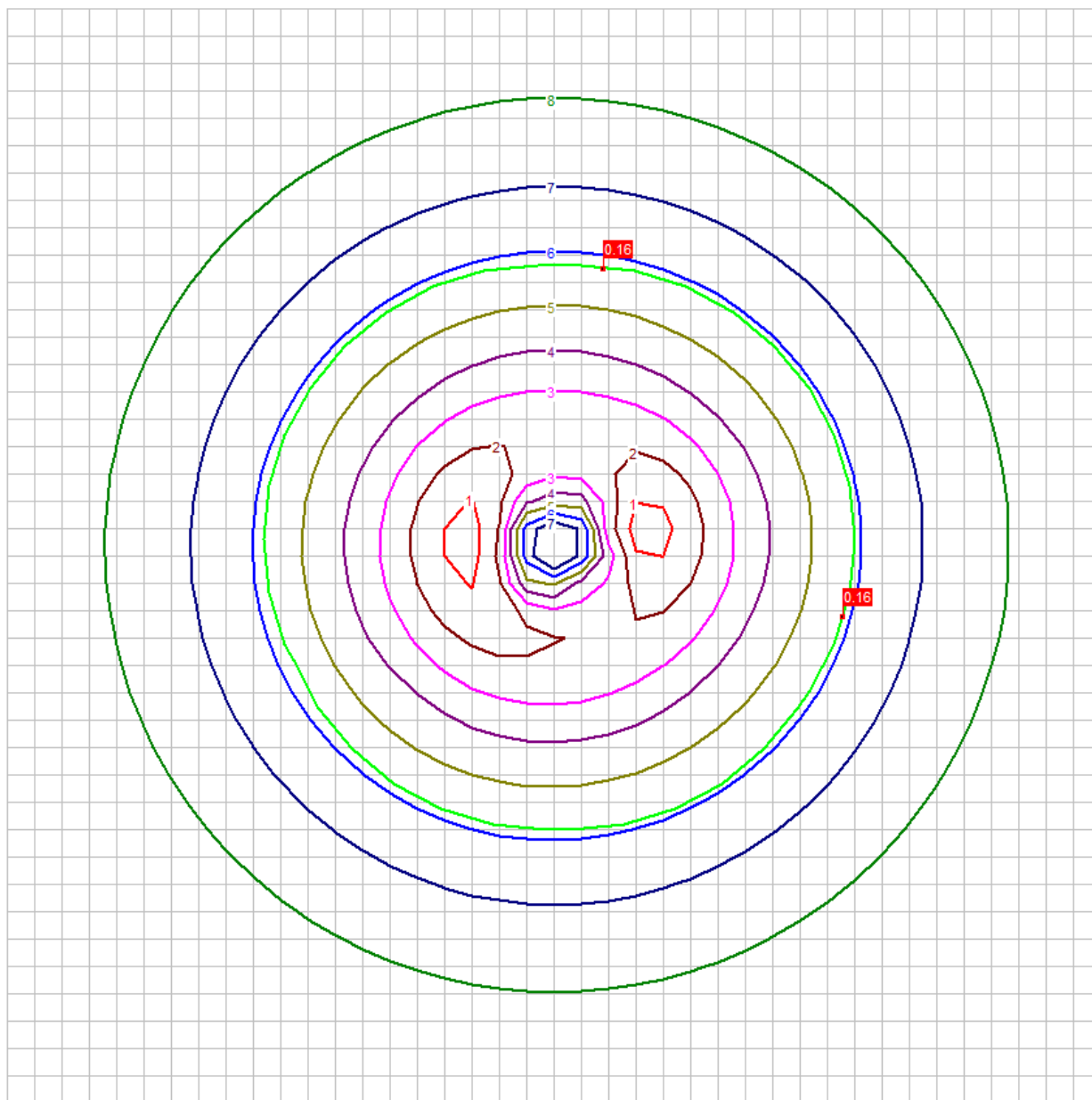
Calculation site 1

Points of the most concentration and list of the sources with the biggest contribution

Concentration in the point in shares MAC	X axis, m	Y axis, m	Wind direction degrees	Wind speed m/s	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %
0.23	600	300	168.36	1.80	10	11.02	6	10.90	1	10.89	7	10.57	2	10.49
0.23	300	300	10.86	1.80	5	11.33	4	11.00	3	10.93	10	10.91	2	10.88
0.23	300	250	352.59	1.80	10	11.49	7	10.68	2	10.67	3	10.41	6	10.37
0.22	650	300	171.30	1.80	6	11.52	1	11.48	10	10.25	2	10.13	7	10.10
0.22	300	200	335.68	1.80	10	11.70	7	11.19	2	10.70	3	10.26	4	10.12
0.22	300	350	27.20	1.80	4	11.58	3	11.49	5	11.37	2	11.30	10	10.56
0.22	650	250	185.92	1.80	2	10.47	10	10.40	3	10.34	4	10.32	6	10.30
0.22	250	250	354.38	1.80	10	10.97	7	10.40	2	10.40	4	10.34	3	10.34
0.22	250	300	8.26	1.80	5	11.32	10	10.72	4	10.66	3	10.60	2	10.53
0.22	600	350	151.12	1.80	10	11.22	7	11.13	2	10.82	3	10.26	4	10.09

Азоту діоксид. Розрахунок виконано 21.01.2014 о 18:38 програмою Еол-Плюс, версія 5.23

1250.0



- 1 - 0.22 ГДК
- 2 - 0.21 ГДК
- 3 - 0.20 ГДК
- 4 - 0.18 ГДК
- 5 - 0.17 ГДК
- 6 - 0.16 ГДК
- 7 - 0.15 ГДК
- 8 - 0.13 ГДК
- 9 - 0.12 ГДК

-750.0

-550.0

1450.0

Substance 303 (Ammonia)

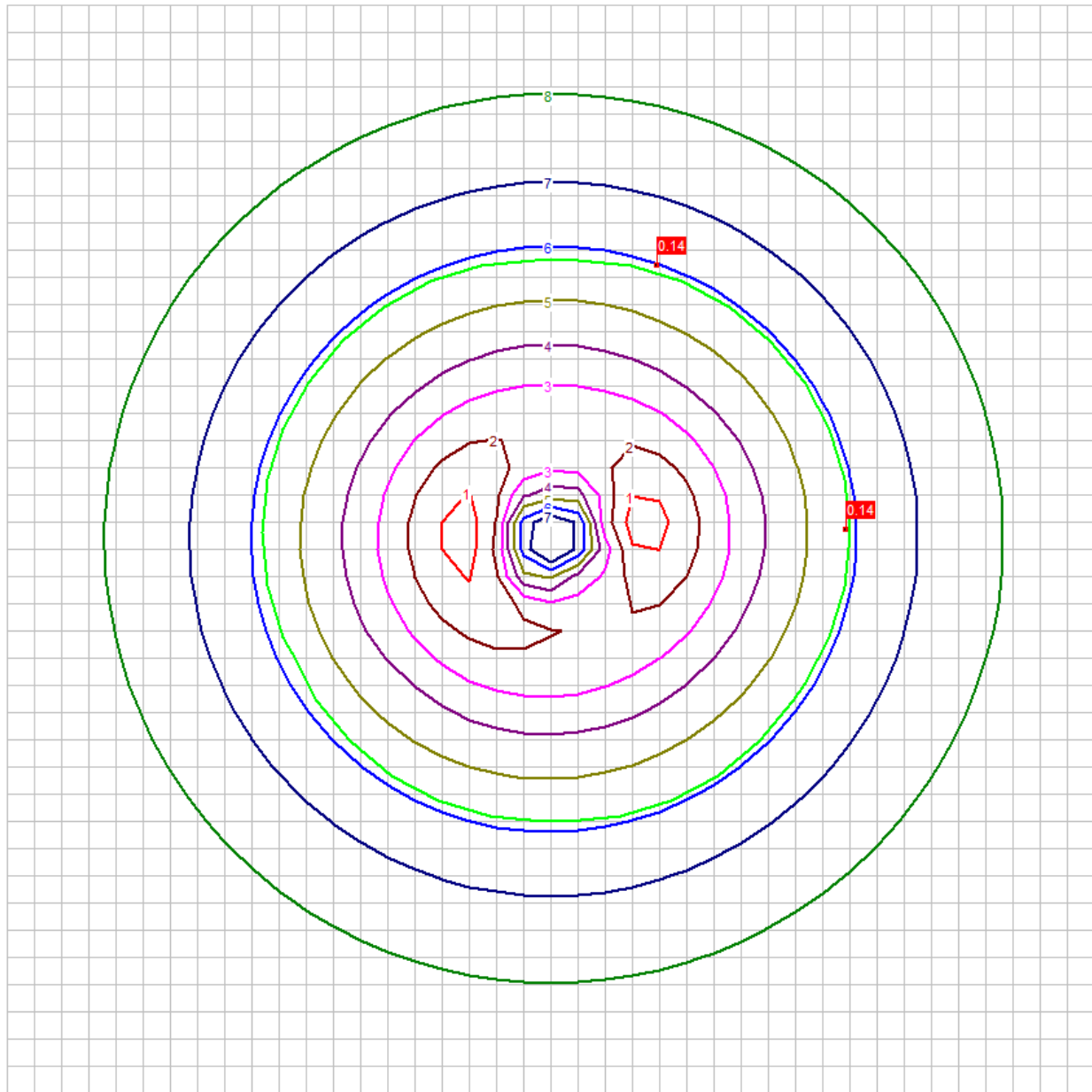
Calculation site 1

Points of the most concentration and list of the sources with the biggest contribution

Concentration in the point in shares MAC	X axis, m	Y axis, m	Wind direction degrees	Wind speed m/c	Code of the source	Contribution n %	Code of the source	Contribution n %	Code of the source	Contribution n %	Code of the source	Contribution n %	Code of the source	Contribution n %
0.19	600	300	168.36	1.80	10	11.02	6	10.90	1	10.89	7	10.57	2	10.49
0.18	300	300	10.86	1.80	5	11.33	4	11.00	3	10.93	10	10.91	2	10.88
0.18	300	250	352.59	1.80	10	11.49	7	10.68	2	10.67	3	10.41	6	10.37
0.18	650	300	171.30	1.80	6	11.52	1	11.48	10	10.25	2	10.13	7	10.10
0.18	300	200	335.68	1.80	10	11.70	7	11.19	2	10.70	3	10.26	4	10.12
0.18	300	350	27.20	1.80	4	11.58	3	11.49	5	11.37	2	11.30	10	10.56
0.18	650	250	185.92	1.80	2	10.47	10	10.40	3	10.34	4	10.32	6	10.30
0.18	250	250	354.38	1.80	10	10.97	7	10.40	2	10.40	4	10.34	3	10.34
0.18	250	300	8.26	1.80	5	11.32	10	10.72	4	10.66	3	10.60	2	10.53
0.18	600	350	151.12	1.80	10	11.22	7	11.13	2	10.82	3	10.26	4	10.09

Аміак. Розрахунок виконано 21.01.2014 о 18:38 програмою Еол-Плюс, версія 5.23

1250.0



- 1 - 0.18 ГДК
- 2 - 0.17 ГДК
- 3 - 0.16 ГДК
- 4 - 0.16 ГДК
- 5 - 0.15 ГДК
- 6 - 0.14 ГДК
- 7 - 0.13 ГДК
- 8 - 0.12 ГДК
- 9 - 0.12 ГДК

-750.0

-550.0

1450.0

Substance 1071 (Phenol)

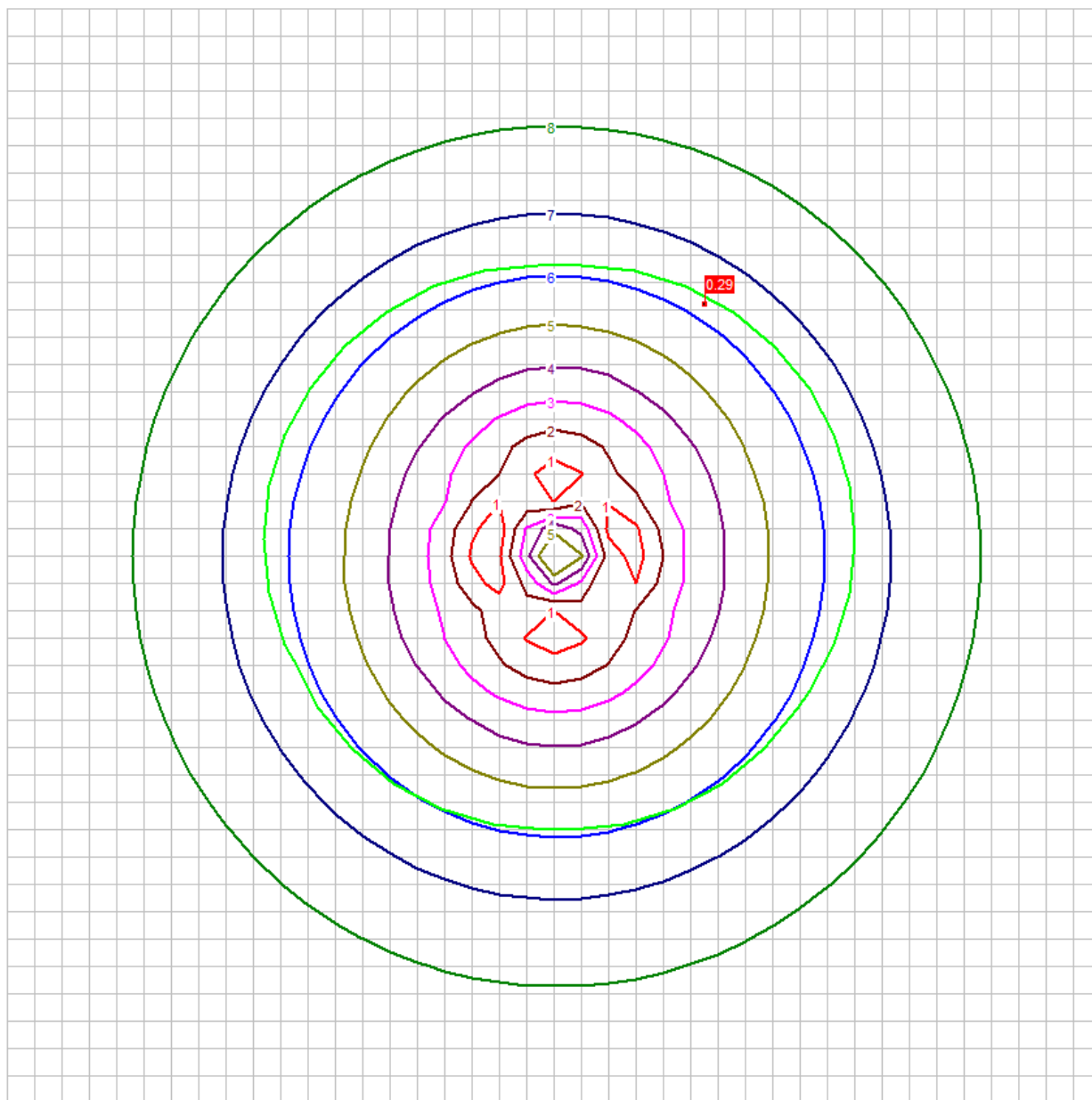
Calculation site 1

Points of the most concentration and list of the sources with the biggest contribution

Concentration in the point in shares MAC	X axis, m	Y axis, m	Wind direction degrees	Wind speed m/c	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %
0.68	450	100	271.78	1.80	9	99.61	8	0.058	7	0.057	2	0.055	3	0.052
0.68	450	400	87.66	1.80	9	99.66	7	0.058	2	0.058	8	0.057	3	0.052
0.68	350	300	25.80	1.80	9	99.74	8	0.058	7	0.053	10	0.050	5	0.028
0.68	600	250	177.95	1.80	9	99.74	8	0.058	7	0.049	10	0.043	5	0.027
0.67	350	200	336.31	1.80	9	99.73	8	0.057	6	0.053	1	0.052	7	0.044
0.66	550	300	152.53	1.80	9	99.74	8	0.059	7	0.050	6	0.037	10	0.035
0.66	550	200	206.55	1.80	9	99.68	8	0.060	10	0.056	7	0.054	5	0.052
0.66	500	100	255.28	1.80	9	99.60	7	0.057	2	0.057	8	0.056	3	0.055
0.66	600	300	158.36	1.80	9	99.72	8	0.057	7	0.047	10	0.037	6	0.034
0.66	300	250	2.59	1.80	9	99.72	8	0.059	7	0.049	10	0.041	6	0.029

Фенол. Розрахунок виконано 21.01.2014 о 18:38 програмою Еол-Плюс, версія 5.23

1250.0



- 1 - 0.65 ГДК
- 2 - 0.58 ГДК
- 3 - 0.51 ГДК
- 4 - 0.45 ГДК
- 5 - 0.38 ГДК
- 6 - 0.31 ГДК
- 7 - 0.25 ГДК
- 8 - 0.18 ГДК
- 9 - 0.11 ГДК

-750.0

-550.0

1450.0

счовина 1849 (Monomethylamin)

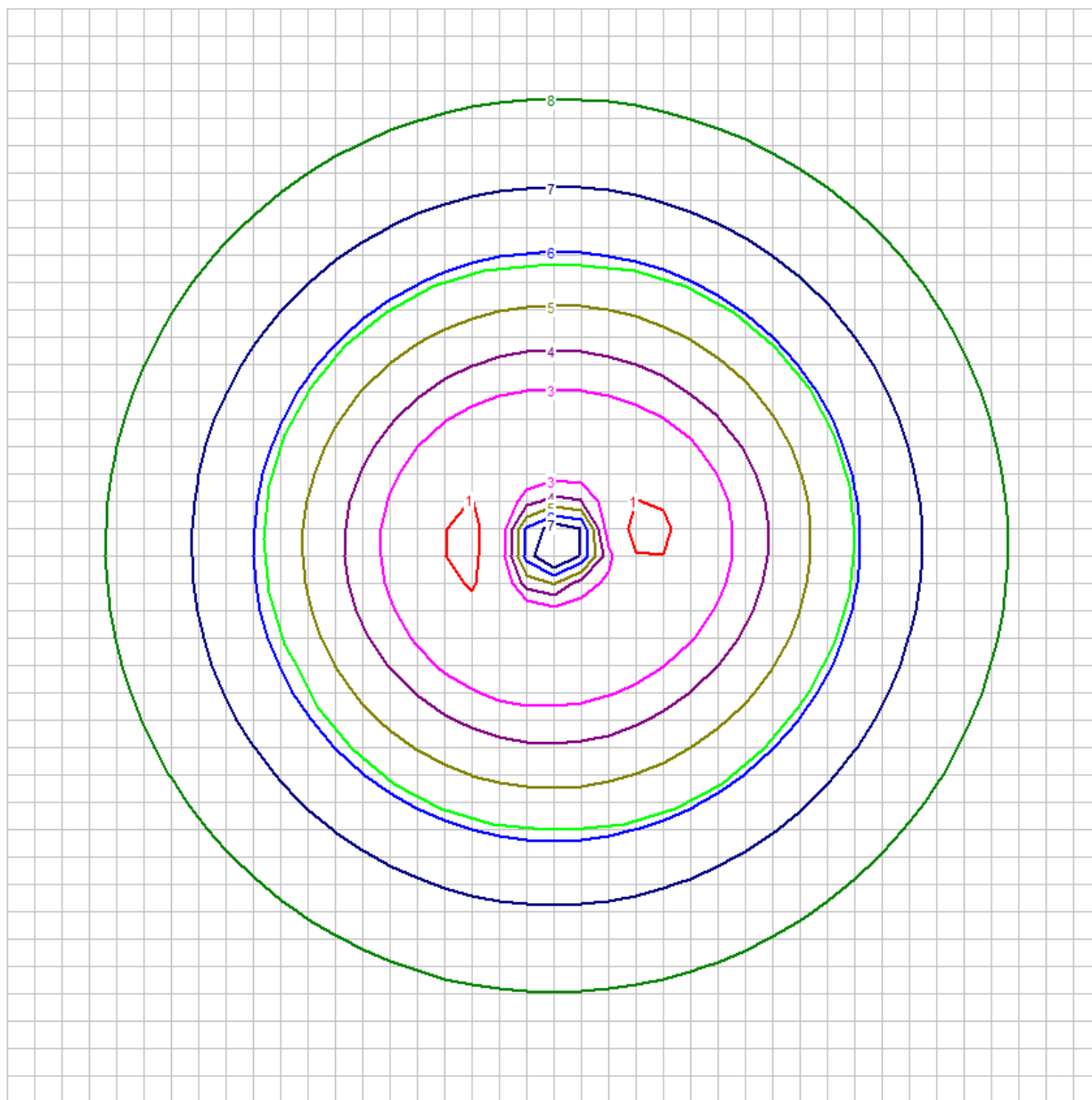
Calculation site 1

Points of the most concentration and list of the sources with the biggest contribution

Concentration in the point in shares MAC	X axis, m	Y axis, m	Wind direction degrees	Wind speed m/c	Code of the source	Contribution n %	Code of the source	Contribution n %	Code of the source	Contribution n %	Code of the source	Contribution n %	Code of the source	Contribution n %
0.049	600	300	168.36	1.80	7	17.92	10	10.12	6	10.01	1	10.00	2	9.63
0.048	300	300	10.86	1.80	7	17.55	5	10.42	4	10.12	3	10.05	10	10.03
0.048	300	250	352.59	1.80	7	18.09	10	10.54	2	9.78	3	9.55	6	9.51
0.048	650	300	171.30	1.80	7	17.17	6	10.62	1	10.58	10	9.45	2	9.33
0.047	300	200	335.68	1.80	7	18.87	10	10.69	2	9.78	3	9.38	4	9.24
0.047	300	350	27.20	1.80	7	17.78	4	10.63	3	10.55	5	10.44	2	10.38
0.047	600	350	151.12	1.80	7	18.79	10	10.25	2	9.89	3	9.38	4	9.22
0.046	650	250	185.92	1.80	7	17.47	2	9.63	10	9.57	3	9.51	4	9.49
0.046	250	250	354.38	1.80	7	17.64	10	10.08	2	9.56	4	9.51	3	9.50
0.046	250	300	8.26	1.80	7	17.38	5	10.42	10	9.86	4	9.81	3	9.75

Монометиламін. Розрахунок виконано 21.01.2014 о 18:38 програмою Еол-Плюс, версія 5.23

1250.0



- 1 - 0.047 ГДК
- 2 - 0.042 ГДК
- 3 - 0.037 ГДК
- 4 - 0.032 ГДК
- 5 - 0.028 ГДК
- 6 - 0.023 ГДК
- 7 - 0.018 ГДК
- 8 - 0.013 ГДК
- 9 - 0.0087 ГДК

-750.0

-550.0

1450.0

Substance 3000 (Solid suspended undifferentiated by the composition particles)

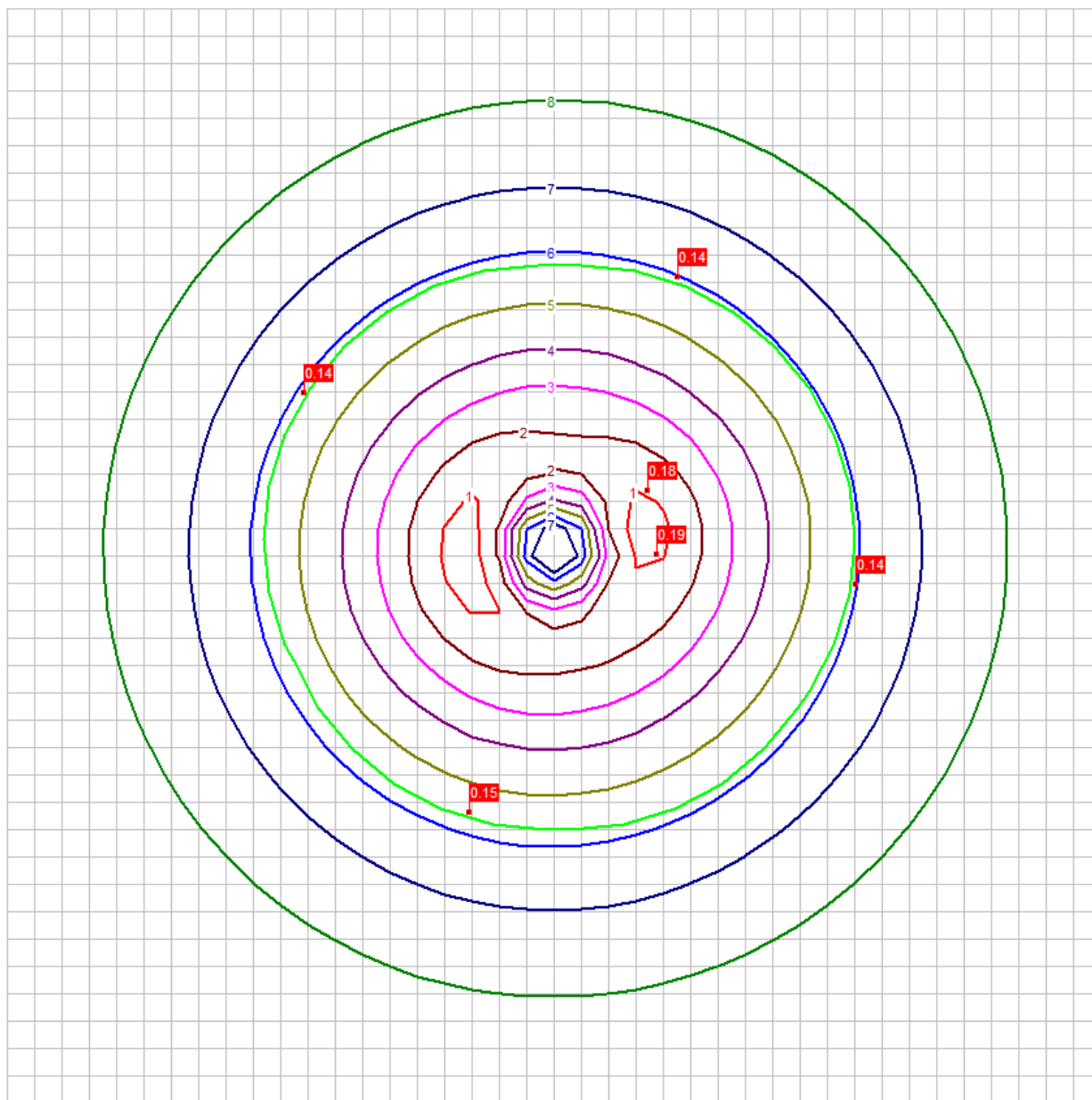
Calculation site 1

Points of the most concentration and list of the sources with the biggest contribution

Concentration in the point in shares MAC	X axis, m	Y axis, m	Wind direction degrees	Wind speed m/c	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %	Code of the source	Contribution %
0.19	600	300	165.83	1.80	7	6.47	10	6.28	6	6.13	1	6.03	8	5.85
0.19	300	250	355.26	1.80	10	6.56	7	6.52	8	5.80	9	5.64	6	5.57
0.19	300	200	337.60	1.80	7	6.45	10	6.33	8	5.97	1	5.81	6	5.81
0.19	300	300	13.83	1.80	10	6.68	7	6.52	5	5.98	9	5.83	8	5.82
0.19	600	350	149.45	1.80	7	6.45	10	6.16	1	6.07	8	6.06	6	5.96
0.19	650	300	169.31	1.80	6	6.47	1	6.40	7	6.10	10	5.95	8	5.73
0.19	300	350	29.92	1.80	5	6.87	10	6.58	7	6.47	4	6.18	3	6.08
0.19	250	250	356.43	1.80	10	6.29	7	6.18	8	5.79	9	5.67	2	5.48
0.19	600	250	184.86	1.80	7	6.77	10	6.68	8	5.99	9	5.91	5	5.73
0.19	300	150	323.45	1.80	7	6.41	8	6.20	10	6.19	9	5.90	2	5.70

Тверді суспендовані частинки недиференційовані за складом. Розрахунок виконано 21.01.2014 о 18:38 програмою Еол-Плюс, версія 5.23

1250.0



- 1 - 0.19 ГДК
- 2 - 0.18 ГДК
- 3 - 0.17 ГДК
- 4 - 0.16 ГДК
- 5 - 0.15 ГДК
- 6 - 0.14 ГДК
- 7 - 0.13 ГДК
- 8 - 0.12 ГДК
- 9 - 0.12 ГДК

-750.0

-550.0

1450.0