平成20年度地下水の水質測定結果について

1 調査の概要

県は、国、岡山市及び倉敷市と協力して、県下の35地点で地下水の水質調査(概況調査)を行うとともに、過去に汚染が確認された9地点の継続監視(定期モニタリング調査)を実施した。

測定地点の内訳

水域区分	岡山県	国土交通省	岡山市	倉敷市	計
概況調査	1 9	4	6	6	3 5
定期モニタリング調査	1	1	3	4	9

2 測定結果の概要

(1) 概況調査

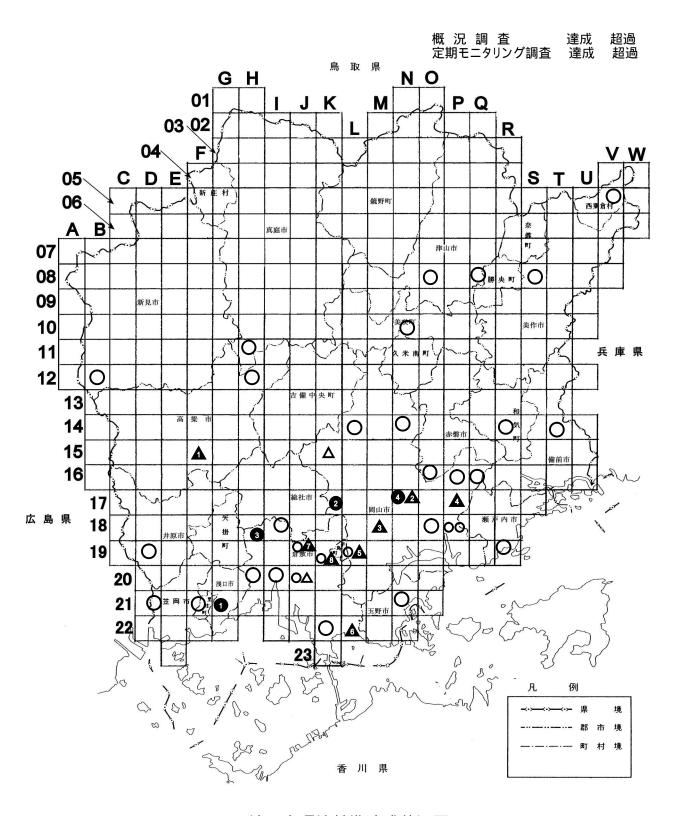
35地点のうち4地点で環境基準を達成しなかった。達成しなかった項目は、「硝酸性窒素及び亜硝酸性窒素」、「ふっ素」及び「鉛」で、周辺調査の結果、硝酸性窒素及び亜硝酸性窒素については施肥や畜産排水又は生活排水の影響と推定された。その他については現在調査中である。

(2) 定期モニタリング調査

9地点のうち8地点で環境基準を達成せず、汚染の継続が確認された。達成しなかった項目は、事業場由来のシス-1,2-ジクロロエチレン及びテトラクロロエチレン、自然由来のひ素及びふっ素、生活排水由来の硝酸性窒素及び亜硝酸性窒素であった。

3 今後の対応

引き続き関係機関が協力して水質測定を行うとともに、知見の収集に努める。



地下水環境基準達成状況図

概況調査の測定結果 (単位:mg/l)

							環				境				基			準				項				目				
番号	調査地点	用途	測定機関	カ ド ミ ウ ム	全 シ ア ン	金 日	六 価 ク ロ ム	ひ 素 0.01	総 水 銀	ア ル キ ル 水 銀	P C B	ジ ク ロ メ タ ン	四 塩 化 炭 素 0.002	1 ・ 2 ジ ク ロ ロ エ タ ン	1 · 1 ジクロロエチレン 0.02	シス 1・2 ジクロロエチレン 0.04	1・1・1 トリクロロエタン 1	1 ・ 1 ・ 2 トリクロロエタン	トリクロロエチレン	テトラクロロエチレン 0.01	1 ・3 ジクロロプロペン	チ ウ ラ ム	シ マ ジ ン	チ オ ベ ン カ ル ブ	ベ ン ぜ ン	セレン	硝酸性窒素及び亜硝酸性窒素 10	ふ っ 素	ほ う 素	要監視項目
1		生活用水	岡山県	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.11	0.25	N.D.	
2	瀬戸内市牛窓町牛窓	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.0	0.33	0.14	
3	備前市吉永町福光	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.3	0.09	0.04	
4	赤磐市穂崎	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.2	0.43	N.D.	
5	和気町藤野	一般飲用	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.09	0.20	N.D.	
6	総社市富原	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	4.0	0.11	N.D.	
7	早島町早島	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	5.7	N.D.	0.03	
8	笠岡市押撫	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.81	N.D.	N.D.	
9	井原市北山町	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.8	0.10	N.D.	
10	浅口市鴨方町六条院西	一般飲用	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	15	N.D.	N.D.	A 19
11	里庄町新庄	生活用水	11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.03	0.51	N.D.	全マンガン 0.50 ウラン 0.0032
12	高梁市有漢町有漢	一般飲用	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	4.5	0.09	N.D.	
13	新見市哲西町大竹	一般飲用	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.8	N.D.	N.D.	
14	津山市鉄砲町	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.7	0.11	N.D.	1
15	美咲町越尾	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	4.8	N.D.	N.D.	
16	真庭市下中津井	一般飲用	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.9	N.D.	N.D.	
17	美作市余野	一般飲用	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.0	N.D.	N.D.	
18	勝央町植月北	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	4.4	N.D.	N.D.	
19	西粟倉村長尾	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.95	0.13	N.D.	

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(注)地下水環境基準値を測定項目下欄に示す。 N.D.は不検出であることを示す。 環境基準値または指針値を超えている検体値は太字(太枠)で示す。

概況調査の測定結果 (単位:mg/l)

1.70	九明五少炽龙湖木						環				境				基			準	!			項				目			,	2 · · · · · g/ · · /
番号	調査地点	用途	測定機関	カ ド ミ ウ ム	全 シ ア ン	鉛	六 価 ク ロ ム	ひ 素 0.01	総 水 銀	ア ル キ ル 水 銀	P C B	ジ ク ロ ロ メ タ ン	四 塩 化 炭 素 0.002	1 ・ 2 ジ ク ロ ロ エ タ ン	1・1 ジクロロエチレン 0.02	シス 1・2 ジクロロエチレン 0.04	1・1・1・リクロロエタン	1	ト リ ク ロ エ チ レ ン	テトラクロロエチレン 0.01	1・3 ジクロロプロペン	チウラム	シ マ ジ ン	チ オ ベ ン カ ル ブ	ベ ン ゼ ン	セ レ ン	硝酸性窒素及び亜硝酸性窒素 10	ふ っ 素	ほう 素 1	要監視項目
20		その他	国交省	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.03	0.0	'	
21	岡山市金岡東町	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.			
22	岡山市藤原西町	その他	"	N.D.	N.D.	0.011	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.04	0.22	N.D.	
23	倉敷市安江	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.70	0.14	N.D.	
24	岡山市立田	生活用水	岡山市	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.99	N.D.	
25	岡山市苔山	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.30	0.30	N.D.	
26	岡山市海吉	その他	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.1	0.17	0.07	
27	岡山市瀬戸町大井	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	4.8	0.10	0.09	
28	岡山市瀬戸町大内	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.1	0.18	N.D.	
29	岡山市建部町小倉	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2.1	0.11	N.D.	
30	倉敷市羽島	生活用水	倉敷市	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.52	0.30	0.06	
31	倉敷市福井	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.12	0.17	
32	詹敷市児島味野	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3.0	0.07	0.11	
33	倉敷市玉島八島	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.82	0.24	N.D.	
34	倉敷市連島町西之浦	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	6.3	0.28	0.06	
35	倉敷市真備町下二万	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	12	0.12	N.D.	

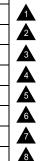
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(注)地下水環境基準値を測定項目下欄に示す。 N.D.は不検出であることを示す。 環境基準値または指針値を超えている検体値は太字(太枠)で示す。

							環				境				基			準				項				目				
番号	調査地点	用途	測定機関	カドミウム	全 シ ア ン	소 파	六価クロム	ひ 素	総水	アルキル水銀	P C B	ジクロロメタン	四塩化炭素	1 ・2 ジクロロエタン	1・1 ジクロロエチレン	シス 1・2 ジクロロエチレン	1・1・1 トリクロロエタン	1・1・2 トリクロロエタン	トリクロロエチレン	テトラクロロエチレン	1・3 ジクロロプロペン	チウラム	シマジン	チォベンカルブ	ベンゼン	セレン	硝酸性窒素及び亜硝酸性窒素	ふっ素	ほ う 素	要監視項目
				0.01	N.D.	0.01	0.05	0.01	0.0005	N.D.	N.D.	0.02	0.002	0.004	0.02	0.04	1	0.006	0.03	0.01	0.002	0.006	0.003	0.02	0.01	0.01	10	0.8	1	
1	高梁市成羽町成羽	生活用水	岡山県									N.D.	N.D.	N.D.	N.D.	0.019	N.D.	N.D.	0.008	N.D.	N.D.				N.D.					
	(P) N (P) N (P) N (P)	工作的	H									N.D.	N.D.	N.D.	N.D.	0.052	N.D.	N.D.	0.021	N.D.	N.D.				N.D.					
2	岡山市藤原西町	その他	国交省	N.D.	N.D.	0.005	N.D.	0.054	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.18	N.D.	
3	岡山市野田	工業用水	岡山市					0.031																						
4	岡山市西隆寺	生活用水	"																								19			
5	岡山市箕島	生活用水	"																								12			
6	倉敷市児島唐琴	生活用水	倉敷市									N.D.	N.D.	N.D.	N.D.	0.008	N.D.	N.D.	0.004	0.10	N.D.				N.D.					
7	倉敷市沖	生活用水	"									N.D.	N.D.	N.D.	N.D.	0.008	N.D.	N.D.	0.005	0.033	N.D.				N.D.					
8	倉敷市中帯江	生活用水	"					0.006																				1.8		
9	倉敷市中島	生活用水	"									N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.003	N.D.	N.D.				N.D.					





(参考)地下水測定項目について

環境基準項目

環境基準で定めている人の健康の保護に係る項目

カドミウム、全シアン、鉛、六価クロム、砒素、総水銀、アルキル水銀、ポリ塩化ビフェニル、ジクロロメタン、四塩化炭素、1,2-ジクロロエタン、1,1-ジクロロエチレン、シス-1,2-ジクロロエチレン、1,1,1-トリクロロエタン、1,1,2-トリクロロエタン、トリクロロエチレン、テトラクロロエチレン、1,3-ジクロロプロペン、チウラム、シマジン、チオベンカルブ、ベンゼン、セレン、硝酸性窒素及び亜硝酸性窒素、ふっ素、ほう素(以上26項目)

要監視項目

人の健康の保護に関連する物質ではあるが、現時点では直ちに環境基準 項目とせず引き続き知見の集積に努めるべき項目

クロロホルム、トランス - 1,2 - ジクロロエチレン、1,2 - ジクロロプロパン、p - ジクロロベンゼン、イソキサチオン、ダイアジノン、フェニトロチオン、イソプロチオラン、オキシン銅、クロロタロニル、プロピザミド、E P N、ジクロルボス、フェノブカルブ、イプロベンホス、クロルニトロフェン、トルエン、キシレン、フタル酸ジエチルヘキシル、ニッケル、モリブデン、アンチモン、塩化ビニルモノマー、エピクロロヒドリン、1・4 - ジオキサン、全マンガン及びウラン (以上27項目)