

DW 773 odc. w miejscowości: IWANOWICE DWORSKIE
 odcinek: 140 km 0+700 – 1+800
 lokalizacja otworu: odc. 140 km 0+800
 0,8 m od prawej krawędzi
 data wykonania otworu badawczego: luty/ marzec 2026

Ilość wykonanych sond: 8

Rodzaj i cechy materiałów konstrukcji drogowej

| Nawierzchnia drogowa | | | | | | | | | | | | | | | | | |
|----------------------|-----|--------------|--|--|-------------|----------------------------------|---------|------|---------|------|-------------|--|--|------------------|-------------------|------------------|------|
| | | | | informacje dodatkowe o warstwach nawierzchni | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj nawierzchni | | | | | | | | | | | | | | |
| 0-21 | 1 | 4,0 | warstwa bitumiczna 0/9,6 mm | brak związania między w-wą 1 i 2 w-wa porowata | | | | | | | | | | | | | |
| | 2 | 6,0 | warstwa bitumiczna 0/16 mm | brak związania między w-wą 2 i 3 w-wa porowata | | | | | | | | | | | | | |
| | 3 | 7,0 | warstwa bitumiczna 0/12,8 mm | | | | | | | | | | | | | | |
| | 4 | 2,0 | warstwa bitumiczna 0/12,8 mm | brak związania między w-wą 4 i 5 | | | | | | | | | | | | | |
| | 5 | 2,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj podbudowy | Informacje dodatkowe o podbudowie | | | | | | | | | | | | | |
| 21-32 | 1 | 11,0 | kruszywo łamane 0/63mm stabilizowane mechanicznie zaglinione | fr.<0,063 mm -20,5% | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj gruntu | analiza makroskopowa | | Podstawowe cechy fizyczne gruntu | | | | | | | | | | | |
| | | | | barwa | stan gruntu | W _N [%] | granice | | stopień | | uziarnienie | | | Ilość walczkowań | Wskaźnik piaskowy | fr.<0,063 mm [%] | |
| 32-200 | 1 | 8,0 | pył piaszczysty TP z 10% zawartością kruszywa wapiennego | tpl | brązowa | 9,5 | 23,6 | 8,6 | 15,0 | 0,06 | | | | | 0-1 | | 61,8 |
| | 2 | 160,0 | pył TT | tpl | żółta | 14,0 | 24,0 | 13,0 | 11,0 | 0,09 | | | | | 0-1 | | 80,0 |

Wyniki opracowań

Bożena Wcisło

Naczelnik Wydziału

ds. jakości Drog

mgr inż. Rafał Tomal

WYKONANEGO W ISTNIEJĄCEJ KONSTRUKCJI NAWIERZCHNI DROGOWEJ

DW 773 odc. w miejscowości POSKWIŃTÓW

odcinek: 140 km 0+700 – 1+800

lokalizacja otworu: odc. 140 km 1+055

0,7 m od prawej krawędzi

data wykonania otworu badawczego: luły/ marzec 2026

Ilość wykonanych sond: 8

nr otworu

Rodzaj i cechy materiałów konstrukcji drogowej

| Nawierzchnia drogowa | | | | | | | | | | | | | | | | | | | | |
|----------------------|-----|--------------|---|--|--|--|--------------------|--|--------------------|--|--------------------|--|----------------|--|--------------------|--|--------------------|--|--------------------|--|
| Przelot [cm] | | | Rodzaj nawierzchni | | informacje dodatkowe o warstwach nawierzchni | | | | | | | | | | | | | | | |
| 0-16 | Lp. | Grubość [cm] | | | | | | | | | | | | | | | | | | |
| | 1 | 4,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | | | | | |
| | 2 | 7,0 | warstwa bitumiczna 0/16 mm | | | | | | | | | | | | | | | | | |
| 0-16 | 3 | 5,0 | warstwa bitumiczna 0/16 mm | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | | | | | | | |
| Przelot [cm] | | | Rodzaj podbudowy | | Informacje dodatkowe o podbudowie | | | | | | | | | | | | | | | |
| 16-45 | Lp. | Grubość [cm] | | | | | | | | | | | | | | | | | | |
| | 1 | 14,0 | kruszywo łamane wapienne 0/63mm stabilizowane mechanicznie zaglinione | | | | | | | | | | | | | | | | | |
| | 2 | 15,0 | kruszywo łamane wapienne 0/80mm stabilizowane mechanicznie zaglinione | | | | | | | | | | | | | | | | | |
| 16-45 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | | | | | | | |
| Przelot [cm] | | | Rodzaj gruntu | | Podstawowe cechy fizyczne gruntu | | | | | | | | | | | | | | | |
| 45-200 | Lp. | Grubość [cm] | | | | | | | | | | | | | | | | | | |
| | 1 | 155,0 | grunt spoisty z zawartością części organicznych | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | analiza makroskopowa | | | | | | | | | | | | | | | | | |
| | | | barwa | | stan gruntu | | W _N [%] | | granicę | | stopień | | uziarnienie | | Ilość waleczkowań | | Wskaźnik piaskowy | | fr.<0,063 mm [%] | |
| | | | | | | | W _L [%] | | W _P [%] | | I _p [%] | | I _L | | F _Z [%] | | F _P [%] | | F _π [%] | |

DW 773 odc. w miejscowości POSKWITÓW

odcinek: 140 km 0+700 – 1+800

lokalizacja otworu: odc. 140 km 1+297

0,6 m od lewej krawędzi

data wykonania otworu badawczego: luty/ marzec 2026

Ilość wykonanych sond: 8

nr otworu

Rodzaj i cechy materiałów konstrukcji drogowej

III

| Nawierzchnia drogowa | | | | | | | | | | | | | | | | | | | | |
|--|-----|--|--------------|------|--|---------------------|--|-------------|----------------------------------|---------|-----|------|---------|--|-------------|--|-----|--------------------|-------------------|--|
| Przelot [cm] | | | Grubość [cm] | | Rodzaj nawierzchni | | informacje dodatkowe o warstwach nawierzchni | | | | | | | | | | | | | |
| 0-26,5 | Lp. | | 1 | 5,0 | warstwa bitumiczna | 0/9,6 mm | w-wa porowata | | | | | | | | | | | | | |
| | | | 2 | 6,5 | warstwa bitumiczna | 0/12,8 mm | brak związania między w-wą 2 i 3, 3 i 4 | | | | | | | | | | | | | |
| | | | 3 | 7,5 | warstwa bitumiczna | 0/16 mm | | | | | | | | | | | | | | |
| | | | 4 | 7,5 | warstwa bitumiczna | 0/25 mm | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | | | | | | | |
| Przelot [cm] | | | Grubość [cm] | | Rodzaj podbudowy | | Informacje dodatkowe o podbudowie | | | | | | | | | | | | | |
| 26,5-45 | Lp. | | 1 | 18,5 | kruszywo łamane 0/63mm stabilizowane mechanicznie zaglinione | fr.<0,063 mm -12,9% | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | | | | | | | |
| Przelot [cm] | | | Grubość [cm] | | Rodzaj gruntu | | analiza makroskopowa | | Podstawowe cechy fizyczne gruntu | | | | | | | | | | | |
| 45-100 | Lp. | | | | | | barwa | stan gruntu | W _N [%] | granicę | | | stopień | | uziarnienie | | | Ilość wałeczkoowań | Wskaźnik piaskowy | |
| | | | 1 | 55,0 | pył TT | tpl | brązowa | 15,5 | 23,5 | 14,3 | 9,2 | 0,12 | | | | | 0-1 | | 77,5 | |
| Wiercenie zakończono na głębokości 100 cm poniżej twarde podłoże | | | | | | | | | | | | | | | | | | | | |

Otwór wykonywał

Wyniki opracowań

Bartłomiej Dudzik

Bożena Wcisło

Naczelnik Wydziału

ds. Iakości Drob

mgr inż. Rafał Tomal

WYKONANEGO W ISTNIEJĄCEJ KONSTRUKCJI NAWIERZCHNI DROGOWEJ

DW 773 odc. w miejscowości POSKWIŹÓW

odcinek: 140 km 0+700 – 1+800

lokalizacja otworu: odc. 140 km 1+610

0,6 m od lewej krawędzi

data wykonania otworu badawczego: luży/ marzec 2026

Ilość wykonanych sond: 8

nr otworu

Rodzaj i cechy materiałów konstrukcji drogowej

| Nawierzchnia drogowa | | | | | | | | | | | | | | | | | |
|----------------------|-----|--------------|---|-------|-----------------------------------|--------------------|--------------------|--------------------|--------------------|----------------|----------------------------|--|--------------------|------------------|-------------------|------------------|------|
| | | | | | | | | | | | | informacje dodatkowe o warstwach nawierzchni | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj nawierzchni | | | | | | | | | | | | | | |
| 0-21 | 1 | 5,0 | warstwa bitumiczna 0/9,6 mm | | w-wa porowata | | | | | | powierzchniowe utwardzenie | | | | | | |
| | 2 | 4,0 | warstwa bitumiczna 0/12,8 mm | | | | | | | | | | | | | | |
| | 3 | 6,5 | warstwa bitumiczna 0/16 mm | | | | | | | | | | | | | | |
| | 4 | 1,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | | |
| | 5 | 4,5 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj podbudowy | | Informacje dodatkowe o podbudowie | | | | | | | | | | | | |
| 21-43 | 1 | 16,0 | kruszywo łamane diabazowe 0/90 mm stabilizowane mechanicznie | | fr.<0,063 mm -7,2% | | | | | | | | | | | | |
| | 2 | 6,0 | kruszywo łamane wapienne 0/31,5 mm stabilizowane mechanicznie | | fr.<0,063 mm -9,8% | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | | | | |
| analiza makroskopowa | | | | | Podstawowe cechy fizyczne gruntu | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj gruntu | barwa | stan gruntu | W _N [%] | granice | | stopień | | uziarnienie | | | Ilość walczkowań | Wskaźnik piaskowy | fr.<0,063 mm [%] | |
| | | | | | | | W _L [%] | W _p [%] | I _p [%] | I _L | F _Z [%] | F _p [%] | F _m [%] | | | | |
| 43-200 | 1 | 157,0 | pył TT | tpl | żółta | 17,5 | 22,6 | 16,2 | 6,4 | 0,20 | | | | | 0-1 | | 90,0 |

Otwór wykonywał

Bartłomiej Dudzik

Wyniki opracował

Bożena Wcisło

Naczelnik Wydziału
ds. Jakości Drog
Bożena Wcisło
mgr inż. Rafał Tomal

WYKONANEGO W ISTNIEJACEJ KONSTRUKCJI NAWIERZCHNI DROGOWEJ

DW 773 odc. w miejscowości POSKMITÓW
odcinek: 140 km 1+800 – 2+320 i km 2+495 – odc. 150 km 0+353
lokalizacja otworu: odc. 140 km 1+865
0,5 m od prawej krawędzi
data wykonania otworu badawczego: luty/ marzec 2026

Ilość wykonanych sond: 8

nr otworu

Rodzaj i cechy materiałów konstrukcji drogowej

| Nawierzchnia drogowa | | | | | | | | | | | | | | | | | | |
|----------------------|-----|--------------|--|----|-----------------------------------|-------------|----------------------------------|--------------------|--------------------|--|----------------|--------------------|--------------------|--------------------|--|-------------------|-------------------|------------------|
| Przelot [cm] | | | | | Rodzaj nawierzchni | | | | | informacje dodatkowe o warstwach nawierzchni | | | | | | | | |
| 0-14,5 | Lp. | Grubość [cm] | | | | | | | | | | | | | | | | |
| | 1 | 4,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | | | |
| | 2 | 3,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | | | |
| | 3 | 7,5 | warstwa bitumiczna 0/16 mm | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj podbudowy | | Informacje dodatkowe o podbudowie | | | | | | | | | | | | | |
| | 1 | 11,5 | kruszywo łamane 0/31,5 mm stabilizowane mechanicznie | | fr.<0,063 mm -4,0% | | | | | | | | | | | | | |
| | 2 | 5,0 | stara nawierzchnia | | | | | | | | | | | | | | | |
| | 3 | 9,0 | kruszywo łamane 0/63 mm stabilizowane mechanicznie | | fr.<0,063 mm -5,0% | | | | | | | | | | | | | |
| | 4 | 10,0 | mieszanka pyłu i kruszywa łamanego 0/25 | | fr.<0,063 mm -58,3% | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj gruntu | | analiza makroskopowa | | Podstawowe cechy fizyczne gruntu | | | | | | | | | | | |
| | 1 | 150,0 | pył | TT | barwa | stan gruntu | W _s [%] | granice | | | stopień | | uziarnienie | | | Ilość waleczkowań | Wskaźnik piaskowy | fr.<0,063 mm [%] |
| | | | | | | | | W _L [%] | W _p [%] | I _p [%] | I _L | F _z [%] | F _p [%] | F _π [%] | | | | |
| 50-200 | | | | | tpł | żółta | 16,8 | 24,0 | 15,2 | 8,8 | 0,18 | | | | | 0-1 | | 77,6 |

V

Otwór wykonywał

Bartłomiej Dudzik

Wyniki opracował

Bożena Wcisło

Naczelnik Wydziału ds. jakości Proba
mgr inż. Rafał Tomal

WYKONANEGO W ISTNIEJĄCEJ KONSTRUKCJI NAWIERZCHNI DROGOWEJ

DW 773 odc. w miejscowości POSKWITÓW

odcinek: 140 km 1+800 – 2+320 i km 2+495 – odc. 150 km 0+353

lokalizacja otworu: odc. 140 km 2+202

1,1 m od lewej krawędzi

data wykonania otworu badawczego: luty/ marzec 2026

Ilość wykonanych sond: 8

nr otworu

Rodzaj i cechy materiałów konstrukcji drogowej

| Nawierzchnia drogowa | | | | | | | | | | | | | | | | |
|----------------------|-----|--------------|---|-------|-----------------------------------|--------------------|--------------------|--------------------|--------------------|----------------|--------------------|--------------------|--------------------|------------------|-------------------|------------------|
| | | | informacje dodatkowe o warstwach nawierzchni | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj nawierzchni | | | | | | | | | | | | | |
| 0-12 | 1 | 5,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | | | |
| | 2 | 7,0 | warstwa bitumiczna 016 mm | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj podbudowy | | Informacje dodatkowe o podbudowie | | | | | | | | | | | |
| 12-55 | 1 | 10,0 | kruszywo łamane 0/31,5 mm stabilizowane mechanicznie | | fr.<0,063 mm -6,5% | | | | | | | | | | | |
| | 2 | 6,0 | stara nawierzchnia | | | | | | | | | | | | | |
| | 3 | 12,0 | kruszywo łamane 0/63 mm stabilizowane mechanicznie | | fr.<0,063 mm -7,2% | | | | | | | | | | | |
| | 4 | 15,0 | kruszywo łamane 0/70 mm stabilizowane mechanicznie wapienne | | fr.<0,063 mm -6,5% | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | | | |
| | | | analiza makroskopowa | | Podstawowe cechy fizyczne gruntu | | | | | | | | | | | |
| Przelot [cm] | Lp. | Grubość [cm] | Rodzaj gruntu | barwa | stan gruntu | W _N [%] | granice | | stopień | | uziarnienie | | | Ilość walczkowań | Wskaźnik piaskowy | fr.<0,063 mm [%] |
| | | | | | | | W _L [%] | W _P [%] | I _p [%] | I _L | F _Z [%] | F _P [%] | F _M [%] | | | |
| 55-200 | 1 | 145 | głina pyleasta G _П | tpl | szara | 21,0 | 32,5 | 18,5 | 14,0 | 0,18 | | | | | | 86,5 |

Otwór wykonywał

Bartłomiej Dudzik

Wyniki opracował

Bożena Weislo

Naczelnik Wydziału

ds. Jakości Dróg

mgr inż. Katarzyna

WYKONANEGO W ISTNIEJĄCEJ KONSTRUKCJI NAWIERZCHNI DROGOWEJ

DW 773 odc. w miejscowości POSKWIŹÓW

odcinek: 140 km 1+800 – 2+320 i km 2+495 – odc. 150 km 0+353

lokalizacja otworu: odc. 150 km 0+205

0,5 m od lewej krawędzi

data wykonania otworu badawczego: luty/ marzec 2026

Ilość wykonanych sond: 8

nr otworu

Rodzaj i cechy materiałów konstrukcji drogowej

| Nawierzchnia drogowa | | | | | | | | | | | | | | |
|----------------------|-----|--------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Przelot [cm] | | | Rodzaj nawierzchni | | | informacje dodatkowe o warstwach nawierzchni | | | | | | | | |
| 0-13 | Lp. | Grubość [cm] | | | | | | | | | | | | |
| | 1 | 5,0 | warstwa bitumiczna 0/9,6 mm | | | | | | | | | | | |
| | 2 | 8,0 | warstwa bitumiczna 0/12,8 mm | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Podbudowa | | | | | | | | | | | | | | |
| Przelot [cm] | | | Rodzaj podbudowy | | | Informacje dodatkowe o podbudowie | | | | | | | | |
| 11,5-46 | Lp. | Grubość [cm] | | | | | | | | | | | | |
| | 1 | 12,5 | kruszywo łamane 0/31,5 mm stabilizowane mechanicznie | | | | | | | | | | | |
| | 2 | 4,0 | stara nawierzchnia | | | | | | | | | | | |
| | 3 | 9,0 | kruszywo łamane 0/63 mm stabilizowane mechanicznie | | | | | | | | | | | |
| | 4 | 9,0 | mieszanka pyłu i kruszywa łamanego 0/25 mm | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Podłoże gruntowe | | | | | | | | | | | | | | |
| Przelot [cm] | | | Rodzaj gruntu | | | Podstawowe cechy fizyczne gruntu | | | | | | | | |
| 46-200 | Lp. | Grubość [cm] | | | | | | | | | | | | |
| | 1 | 154,0 | pył TT | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |