



Oil and Natural Gas Production (ONGP) Health Concerns

ONGP in Pennsylvania

In Pennsylvania (PA), unconventional oil and gas development (UOGD) activity began in 2005. Conventional wells differ from unconventional wells by the geologic formation being tapped. UOGD uses horizontal and vertical drilling and hydraulic fracturing ("fracking") to access oil and natural gas reservoirs.

As of December 31, 2025, the PA Department of Environmental Protection (DEP) reported 13,358 active unconventional wells across 34 of the state's 67 counties. Washington (2,139), Susquehanna (2,053), and Bradford (1,701) Counties have the greatest numbers.*

ONGP Health Information Database

In response to growing public concerns about UOGD, the Pennsylvania Department of Health (DOH) tracks health complaints in a confidential database. These symptoms are self-reported, are not clinically verified, are general in nature, and cannot specifically be attributed to ONGP.

Between 2011 and December 31, 2025, 223 individuals filed a formal ONGP health complaint by completing a questionnaire with DOH staff. The majority of complaints were from Washington (57), Susquehanna (46), and Bradford (24) counties. Two complaints were received in the second half of 2025. One complaint was referred by the DEP, and one was shared directly with the DOH. Nearly all (96.9%) of formal health complaints received by DOH since 2011 were related to UOGD. Figures in this report may differ slightly from those in past reports due to ongoing data collection.

2025 Health Overview

Twenty-five individuals contacted the DOH with ONGP-related health concerns in 2025. Of the 25 total concerns, 9 of these individuals filed a formal health complaint. Based on formal health complaints for 2025 (N=9 complaints, 17 individuals):

- 47% reported being in poor or fair health
- None reported being disabled
- None reported being diagnosed with cancer
- 82% visited the doctor for their health concerns
- 56% had concerns that included animal health (livestock and/or pets).

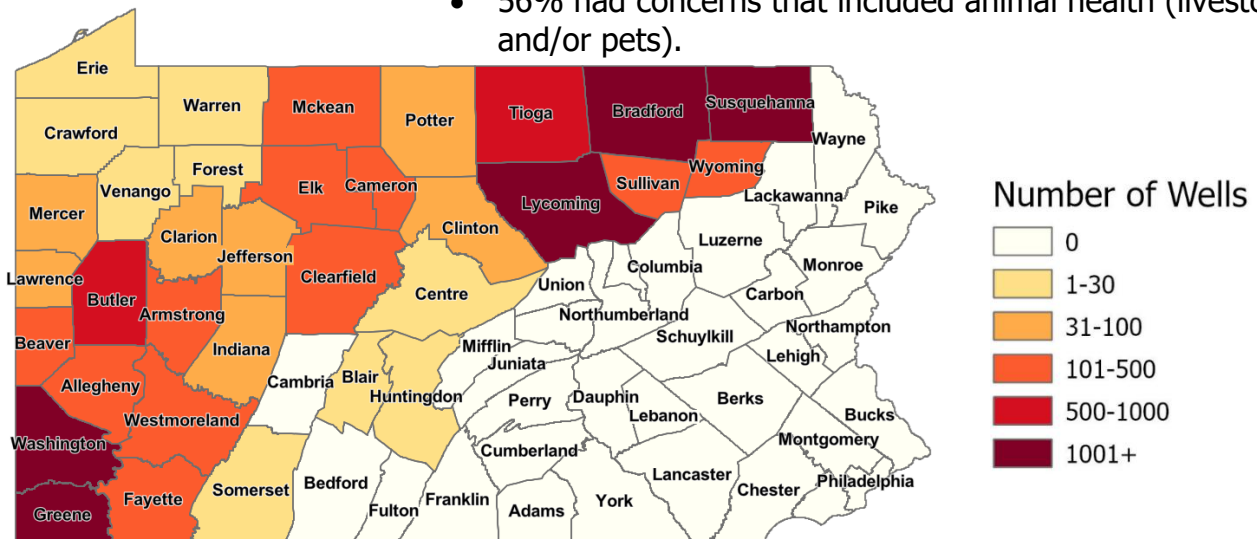


Figure 2. Active Unconventional Oil and Gas Wells in Pennsylvania

*Based on the number of active wells from DEP Spud Data Report, Wells Drilled by County, 12/31/2025

ONGP Health Concerns (July-Dec 2025)



Figure 1. Total Health Complaints Logged by DOH Division of Environmental Health Epidemiology Since 2011 (N=223)

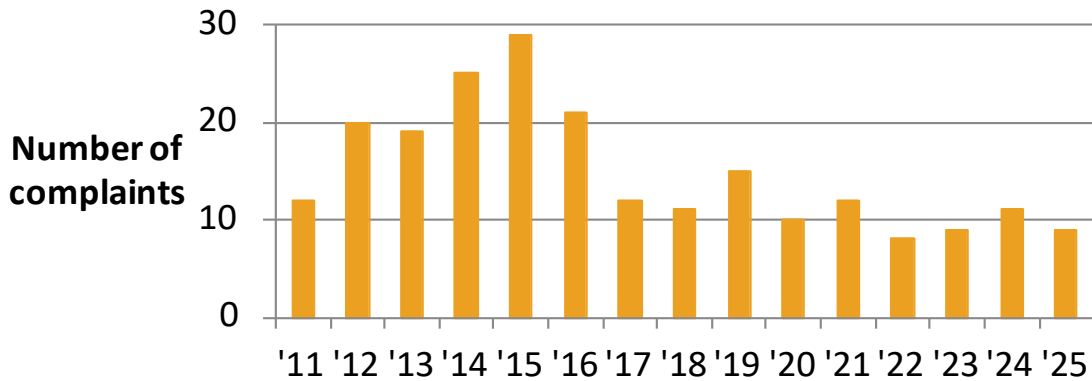


Table 1. Reason for Contact (N=223)

Reason	July-Dec 2025	2025 Total	Total since 2011	% of total since 2011
General inquiry	0	0	24	10.8%
News update/alert	0	0	3	1.4%
Information sharing	0	0	12	5.4%
Formal health complaint	2	7	184	82.5%

Note: General inquiries, news update/alert and information sharing cases are no longer logged in the health complaints registry effective March 2017.

Table 2. Environmental Source of Concern^a (N=223)

Source	July-Dec 2025	2025 Total	Total since 2011	% of total since 2011
Water	2	7	162	72.4%
Air	1	5	124	55.6%
Soil	1	4	39	17.5%
Noise	1	1	63	28.3%
Truck traffic	1	2	56	25.1%
Other ^b	0	1	54	24.2%
Missing	0	0	9	4.0%

^aMore than one environmental source of concern may be selected per complaint.

^bOther category includes light, drilling mud or solid waste, vibrations or seismic testing, etc.

ONGP Health Concerns (July-Dec 2025)



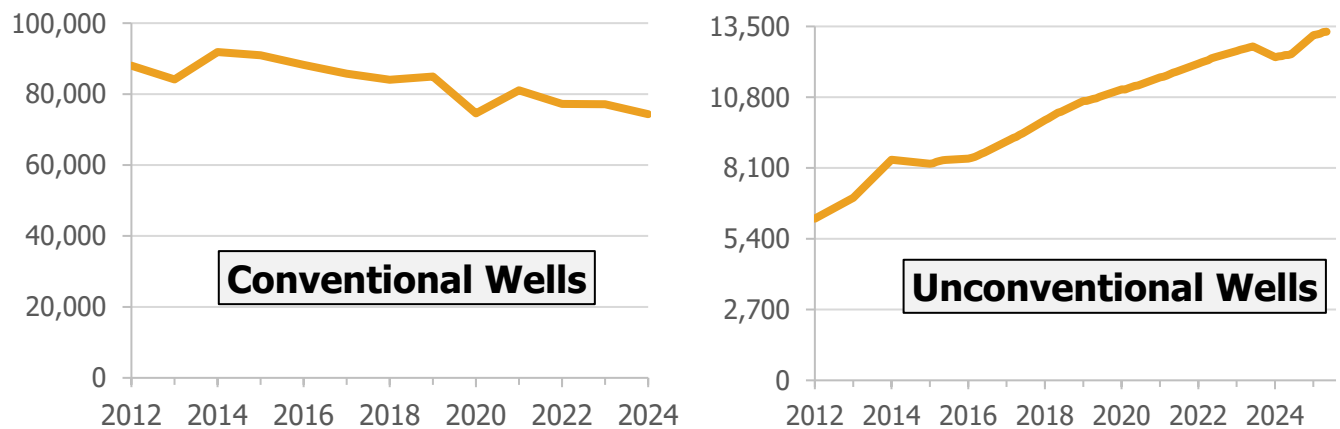
Table 3. Demographic Information of Individuals in ONGP Registry with a Formal Health Complaint (N=184 formal health complaints, 378 individuals*)

Characteristic	July-Dec 2025	2025 Total	Total since 2011	% of total since 2011
Female	2	10	201	53.2%
Male	2	7	171	45.2%
Missing	0	0	6	1.6%
Non-Hispanic white	3	16	215	56.9%
Non-Hispanic Black	0	0	0	0.0%
Hispanic	0	0	1	0.3%
Other	1	1	6	1.6%
Missing	0	0	156	41.3%
0-17 years old	1	2	61	16.1%
18-64 years old	1	8	187	49.5%
65+ years old	2	7	78	20.6%
Missing	0	0	52	13.8%
Any private insurance	0	9	140	37.0%
Public only insurance	4	7	67	17.7%
Uninsured	0	1	9	2.4%
Missing	0	0	162	42.9%

*Table excludes general inquiries, news updates, and information sharing complaints. Each health complaint may pertain to more than one individual.

Race/ethnicity, age, and health insurance were not systematically collected until March 2017. Percentages within each group may not sum to 100% due to rounding.

Figure 3. Total Number of Active Oil and Gas Wells in Pennsylvania since 2012*



Graphs are based on the number of active wells from DEP Oil and Gas Well Production Report. Conventional well data is available through December 2024. Unconventional well data is available through November 2025.

ONGP Health Concerns (July-Dec 2025)



Table 4. Symptoms reported by Individuals in ONGP Database who reported a Formal Health Complaint (N=184 formal health complaints, 378 individuals*)

Symptom group	July-Dec 2025	2025 Total	Total since 2011	% of total since 2011
Cardiovascular	0	5	53 (12)†	13.3%
Dermatological	2	7	145	38.2%
Ear	2	5	50	12.5%
Eye	2	9	86	21.3%
Gastrointestinal	3	9	144	37.4%
General systemic ^a	2	7	139	36.6%
Neurological	4	11	173 (10)†	44.9%
Psychological	3	6	94 (8)†	24.4%
Respiratory	4	13	192 (22)†	49.6%
Urogenital	1 (1)†	2	43 (9)†	11.4%
Missing/None	0	0	41	11.4%

*Table excludes general inquiries, news updates, and information sharing complaints. Each health complaint may pertain to more than one individual.

^aIncludes sleep disturbance, fatigue, fever, chills, night sweats, shaking, weight loss/gain, decreased appetite, muscle aches/cramps, joint pain, fainting, and swelling

†Numbers in parentheses correspond to newly diagnosed conditions relevant to that symptom group: heart disease and/or hypertension (cardiovascular group), neurological disease (neurological), psychological disease (psychological), asthma or COPD (respiratory), kidney disease or failure (urogenital). They do not represent pre-existing conditions. Therefore, someone could report that UOGD exacerbated their asthma (noted in the respiratory count), but was diagnosed before UOGD activity started in their area (not in parentheses).

Commonly drilled counties in Pennsylvania

The southwest and northeast portions of the state have the most unconventional wells in Pennsylvania. As of December 31, 2025, there are more than 500 active unconventional oil and gas wells in the following counties: Washington (2,139), Susquehanna (2,053), Bradford (1,701), Greene (1,597), Lycoming (1,117), Tioga (973), and Butler (673). **Table 5** shares the number of concerns we have received in these counties by the source type. **Table 6** summarizes the types of health symptoms that have been reported to the DOH in these counties.



Table 5. Environmental Source of Concern by County (All Complaints Since 2011)

Source	Washington	Susquehanna	Greene	Bradford	Lycoming	Tioga	Butler
Water	35	40	11	22	2	8	4
Air	42	22	7	6	4	2	2
Soil	13	5	3	4	0	2	0
Noise	26	11	4	4	0	1	1
Truck traffic	23	10	4	4	1	2	1
Other ^a	22	11	2	5	0	1	1
Missing	3	0	0	0	1	0	0

County-specific numbers of complaint cases are as follows: 57 (Washington), 46 (Susquehanna), 14 (Greene), 24 (Bradford), 6 (Lycoming), 8 (Tioga), and 4 (Butler). More than one environmental source of concern may be selected per complaint.

^aOther category includes light, drilling mud or solid waste, vibrations or seismic testing, etc.

Table 6. Health Symptoms by County (Individuals With a Formal Health Complaint Since 2011)

Symptom	Washington	Susquehanna	Greene	Bradford	Lycoming	Tioga	Butler
Cardiovascular	10	8	3	14	0	1	0
Dermatological	30	48	16	12	6	3	1
Ear	15	9	2	3	2	1	1
Eye	24	18	6	6	3	5	0
Gastrointestinal	34	41	9	17	0	4	3
General systemic ^a	43	29	12	12	0	4	2
Neurological	47	37	12	16	1	8	4
Psychological	35	21	6	5	3	1	3
Respiratory	59	42	18	17	4	6	3
Urogenital	9	15	3	5	3	0	1
Missing/None	19	3	3	8	0	0	1

County-specific numbers of individuals are as follows: 104 (Washington), 92 (Susquehanna), 29 (Greene), 38 (Bradford), 8 (Lycoming), 16 (Tioga), and 6 (Butler).

^aIncludes sleep disturbance, fatigue, fever, chills, night sweats, shaking, weight loss/gain, decreased appetite, muscle aches/cramps, joint pain, fainting, and swelling. Each individual can report more than one symptom or symptom category.

Contact us

Please contact the Division of Environmental Health Epidemiology with ONGP questions and concerns at 717-787-3350 or submit a complaint [online](#).

DATE UPDATED: JANUARY 2026