

PA NO.: ND000001 Wilton	DATE:8/5/2022	PROBLEM TYPE: S	PRIORITY: 2
-----------------------------------	----------------------	------------------------	--------------------

Problem Type Features - if this form is being used to evaluate and record multiple occurrences of Subsidence within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there a possible subsidence area directly beneath or immediately adjacent to inhabited structures, roadways, or public facilities?	X	
2.	Has it caused or is it anticipated that it could shortly cause loss of life, serious injury, or excessive economic loss?		X
3.	Is there possible subsidence adjacent to or near structures, roadways, or public facilities?	X	
4.	Has actual subsidence in the area caused injury or appreciable economic loss?	X	
5.	Have the above problems occurred within the past 5 years?	X	

Positive answers to Questions 1 and 2 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Questions 3, 4, and 5 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.



Photos - Left: Exposed fiber optic line is visible. Right: surface opening.

PA NO.:ND000001 Wilton	DATE:8/5/2022	PROBLEM TYPE: S	PRIORITY: 2
---------------------------	---------------	-----------------	-------------

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems for Subsidence).

6. Narrative evidence of Priority 1 (Extreme Danger) Subsidence problems:

On July 28, 2022, the PSC was notified of a sinkhole very near the road ditch of ND Highway 36 in Section 6, T142N R79W of Burleigh County, North Dakota. The hole contains a fiber optic cable and another unidentified utility. The hole is about 130 feet from the center line of the highway. The ND PSC has classified this sinkhole as an emergency requiring immediate attention because of the exposed utilities and proximity to the highway.

7. Narrative evidence of Priority 2 (Health and Safety) Subsidence problems:

Some of the most hazardous, widespread and frequent mine-related problems in North Dakota are deep sinkholes caused by underground mine collapse. The AML Division has received reports of personal injury, loss of livestock and property damage caused by underground mine collapse sinkholes. Since 2005 over 2,500 dangerous sinkholes have been filled in western North Dakota. Most sinkholes are reported by landowners or renters, state and local government officials and the public. Sinkholes are commonly reported in the spring of each year; however, sinkholes can occur at any time and without notice. In addition to the emergency sinkhole, additional sinkholes that could present an economic loss to farmers, as well as a safety hazard to people and animals in the area, have been discovered.

III. RECLAMATION COST DESCRIPTION: Show the approach used to estimate cost and provide references or sources of information used (i.e. e-AMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

The cost for mobilization to this site is \$2,300.

The cost of filling per yard is \$7.90.

Approximately 8 sinkholes were marked at this site as of August of 2022. An estimated 240 cubic yards of fill will be needed at a cost of about \$1,900. Additional holes may be filled if discovered.

The cost for tillage and seeding is \$805 per acre.